



## Zambia CBNRM Forum

### Policy Advisory note on the

### Proposed Kangaluwe Large Scale Copper Mining Project in the

### Lower Zambezi National Park



## 1.0. Introduction:

### 1.1 The Zambia CBNRM Forum and Mining project

The Zambia CBNRM Forum was established in 2004 and formally launched on 12<sup>th</sup> August, 2005 by the Former Ministry of Tourism, Environment and Natural Resources (MTENR). The Forum is membership umbrella organization for Community Based Organizations (CBOs) or institutions with interest in or supportive of Community Based Natural Resource Management (CBNRM) in the country.. As such, it provides a platform for CBNRM discourse, debate and development.

The Forum is a membership-based, voluntary and non-partisan organization with full legal status. The Forum members have produced a policy advisory note for consideration by government in coming up with a decision on the proposed large scale Mining project in Lower Zambezi National park. The proposed large scale mining activities under license number 15547-HQ-LML Mwembeshi resources limited is in Luangwa district approximately 180 km by road from Lusaka by Road.

### 1.2 Should Large Scale Mining be allowed in Lower Zambezi National Park?

The Lower Zambezi National Park (LZNP) is an International Conservation Union (IUCN) category II protected area in south-eastern Zambia on the Zambezi River.

The national park is within close proximity of the Kafue and Luangwa Rivers. The Lower Zambezi National Park (LZNP) not only provides refuge to globally threatened wildlife species such as Elephants and Wild dogs but is home to unique vegetation types that include Zambezi endemics and the only protected and intact lowland deciduous thickets in the Southern African region. In addition, the Lower Zambezi National

**The six IUCN Management Categories of Protected Areas (IUCN, 1994)- Category Description**

**Ia Strict Nature Reserve:** Protected area managed mainly for science.

**Ib Wilderness Area:** Protected area managed mainly for wilderness protection.

**II National Park:** Protected area managed mainly for ecosystem protection and recreation.

**III Natural Monument:** Protected area managed mainly for conservation of specific natural features.

**IV Habitat/Species Management Area:** Protected area managed mainly for conservation through management intervention.

**V Protected Landscape/Seascape:** Protected area managed mainly for landscape/ seascape conservation and recreation.

**VI Managed Resource Protected Area:** Protected area managed mainly for the sustainable use of natural ecosystems.

Park (LZNP) shares boundaries with the Mana Pools World Heritage site to the south and it is also being considered for designation as a World Heritage site by UNESCO. Further, given its proximity to Lusaka with relatively easy access, the

Lower Zambezi National Park has the potential for growth as a tourist destination with potential for sustainable income to the local community. Going ahead with the mining project even when the Zambia Environment Management Authority (ZEMA) has rejected the proposal citing serious environmental concerns has various local and international ramifications. The nature of the proposed mining project would not only undermine the capacity of the LZNP to provide refuge to wildlife and unique vegetation but it would also undermine development of tourism for the area; may lead to large scale pollution and contamination of ground and surface water sources including the shared Zambezi River system. Further, proceeding with the project would conflict with the provisions of several regional, bilateral and multilateral agreements including the SADC protocols on Shared Water Courses, Protocol on Forestry, Tourism, Wildlife and UNESCO World Heritage sites.

While the Zambia CBNRM forum supports sustainable development projects, we believe that a mining project within a national park needs to exhibit exceptional benefits to the community and the country as a whole as well as provide industry leading environmental management plans to address identified impacts in order to be considered. This project, as provided in the EIS, does not provide significant benefits at the local and national level and fails to meet even basic minimum requirements of environmental management plans for a project of this scope.

## **2.0. Does the EIS and Environmental Management Plan Meet National, International and Industry Standards?**

The EIS as submitted by the developer failed to meet the minimum technical standards for a project of the magnitude proposed. The poor quality of the EIS shows a lack of preparedness, seriousness, and professional competence by the developer. The EIS lacks clarity on basic issues such as the life of the proposed mine and fails to provide comprehensive analysis of projected impacts of the mine

### **Independent mining and environmental consultant, Jim Kulper's Comments on the Kangaluwi EIS:**

- The Kangaluwi Copper Mine EIS, because it significantly underestimates the potential for water quality issues, fails to identify that issue as significant and offers no substantive assessment or mitigation for water contamination which is almost certain to result from a mine of this nature. Similarly, in assessing the potential for ARD to occur from the sulfide mineralization at the site, the EIS does not demonstrate that the approach to assessing the potential for ARD at this site is consistent with the GARD guide or any other accepted approach to materials characterization. As a result, the EIS fails to provide a meaningful assessment for either regulators or the public to understand the project, much less determine whether the project is likely to result in significant water quality problems, and offers no suggestions for mitigation of those problems which are highly likely if not certain for this project.....
- According to the EIS (Executive Summary), "most water will be supplied through various???" as, yet not defined and finalised dewatering schemes." It is very problematic for an EIS not to identify the sources of water supply as this represents an area of potentially significant impacts on local water resources.
- If this EIS were submitted in the US or any other developed country it would be rejected outright as insufficient and would indicate that the proponent lacked the technical or corporate capacity to carry out such a project without significant risk to water resources and humans

as well as fails to provide a necessary environmental management plan. Further, the EIS does not provide a viable alternative to the project site, which is a necessary requirement of the EIA process in Zambia.

In addition, the developer, in response to the ZEMA decision to reject the project, demonstrates a lack of understanding of the Zambian EIA requirements and process by indicating to its shareholders 'that project was rejected out of hand and it could soon be approved as it had wide support from senior cabinet ministers, the local people and environmental NGOs' ([www.zambeziresources.com](http://www.zambeziresources.com)). The developer further demonstrate a level of impunity against the Zambian regulations that is likely to continue if the project was to proceed by obtaining venture capital funding to move the project to pre-feasibility phase in 2013 through a share issue in the project.

The developer has not only demonstrated a lack of professional competency and preparedness for a project of this nature by submitting an EIS that does not meet Zambian EIA requirements and industry standards but has also exhibited a level of impunity that indicates a lack of willingness to meet the regulatory requirements.

### **3.0. What is the potential impact of the project on ground and surface water sources- implication on the SADC Protocol on Shared Water Courses?**

While the EIS does not provided a comprehensive analysis of the projected impact of the project on ground and surface water sources, the nature of the project is likely to lead to exposure of water sources to contamination. There is a high risk of contamination of ground and surface water sources from Acid Rock Drainage (ARD) from the open pit, dewatering process and from the tailings damp seepage. In addition, given the topography of the project

#### **Independent mining and environmental consultant, Jim Kulper's Comments on the Kanganluwi EIS**

- According to the EIS (Executive Summary), "The Chakwenga and Mushika River and the Moya and Kanganluwi Stream are the main water courses draining the project area." Evaluation of mining projects for sulfide minerals in close proximity to water resources has previously shown that they have a high likelihood of leading to contamination of those resources. ....It is clear that this EIS grossly underestimates this potential and..... this project is likely to result in significant water contamination resulting from ARD.
- According to the EIS (Section 3.1), "Showing similarities with porphyry copper style mineralization, the mineralization occurs as chalcopyrite disseminations in aplites, pegmatites and their biotite gneiss wall-rocks." Copper porphyry ore bodies are nearly always associated with ARD....
- According to the EIS (Section 3.6), "The top of the dump will be engineered to slope up to the north during construction of the final lift. The EIS fails to identify where any leachate or seepage from the dump would be transported relative to the existing underlying topography and/or groundwater resources.
- According to the EIS (Section 3.6), There is no knowledge of the hydrogeological environment in the region of the storage. This statement of "no knowledge" confirms the extremely inadequate

site, the high risk of flush flooding in the area and the nature of open pit mining, there is a high risk of contamination of the Zambezi River within the area shared

with Zimbabwe and Mozambique. This is likely to compromise the ability for Zambia to meet its obligations under the SADC Protocol on Shared Water Courses as well as the ZAMCOM agreement. In particular, provisions of Article 2 of the Revised Protocol on Shared Watercourses and Article 14 of the ZAMCOM agreement which provide for obligations of member states. Proceeding with the project has the potential to strain bilateral relationships with neighboring countries such as Malawi, Mozambique and Zimbabwe and poses a high risk of Zambia failing to meet its obligations under both the SADC Protocol on Shared Water Courses and the ZAMCOM agreement.

#### **4.0. What is the potential impact of the project on Wildlife- implication on the SADC Protocol on Wildlife?**

The proposed project site is within the middle Zambezi elephant corridor as well as the dispersal corridor for the endangered African Wild dog. In addition, the LZNP provides important breeding habitat for the African Pitta, an intra-Africa migrant bird that nests in the remnant low land deciduous thickets within LZNP and adjacent areas. Proceeding with the project would not only severely impact the corridor for these endangered and shared wildlife species and the mine operations may lead to significant displacement of these species into community spaces. This may lead to increased human-wildlife conflict in Luangwa district and other surrounding areas. The EIS does not provide a comprehensive analysis of the potential impact of the project on wildlife and the communities in the surrounding area. The LZNP provides an important breeding habitat for the African Pitta, an intra-Africa migrant bird that nests in the remnant low land deciduous thickets within LZNP and adjacent areas. Going ahead with the proposed project at the site would severely impact wildlife corridors and critical habitats with additional knock-on impacts on the communities around the protected area. The project would further, jeopardize regional and international efforts to protect migratory wildlife species. The negative impact on wildlife may also significantly damage the tourism industry that supports employment of a large section of the local community. Loss of employment and community income may lead to increased poaching and encroachment pressure on LZNP.

#### **5.0. What is the potential impact of the project on Forests and Implication on the SADC Protocol on Forests?**

The Lower Zambezi National Park encompasses several vegetation and forest types with Mopane woodland dominating the Zambezi River valley interspersed with low-land deciduous thickets. While the escarpment and plateau is dominated

by Miombo woodland, with the Mopane woodland within the LZNP representing one of the few protected areas of this forest

##### **Protocol on Forestry- Article 4: Guiding Principles**

5. State Parties shall endeavour to protect and, where possible, restore natural forests, to maintain the essential ecological functions of these ecosystems.

7. State Parties shall not use lack of scientific certainty as a reason for postponing measures to prevent or minimise potentially serious or irreversible harm to forests.

type within the middle Zambezi valley. This is true for other woodland types and

may represent the last remaining intact and protected low-land deciduous thickets in the sub-region (Leonard, 2005). LZNP also contains several Zambezi endemics. If the project was to proceed as proposed, it would lead to extensive clearing of vegetation from the project site, access points and adjacent areas. In addition, mining would attract new settlements in and around the mine area increasing human pressure on LZNP and surrounding forest areas. There is a very high risk that going ahead with the project would result in severe impact on the vegetation mosaic of the LZNP. The project would also compromise Zambia's standing under the SADC Protocol on Forestry especially relating to Article 4- Guiding Principles.

#### **6.0. Project's Foot Print at National Level**

According to the EIS the developer will transport all the copper concentrates from the mine site to smelters on the Copperbelt for the life of the mine. The developer proposes moving 160 tones of concentrates from Lower Zambezi to Chambeshi and Mopani per day using 6x30 tonne trucks. This is likely to lead to increased pressure on and damage to national roads. In addition, this has a very high risk of hazard waste spillage and increases accident risks throughout the transportation route for the concentration in Lusaka, Central and Copperbelt Provinces. The EIS does not address this significant risk and does not provide any environmental management plans. Proceeding with the project may lead to severe impacts on the country's public health, road network and national budget which would completely erode any potential socio-economic benefits from the project. On this basis, the project is more likely to lead to significant costs to the country and no significant benefits.

#### **7.0. Conclusion- The Developer Has Not Demonstrated Technical and Institutional Capacity to Meet Zambian Environmental Regulations**

As demonstrated above, the EIS does not meet minimum standards for a project of this magnitude and it is technically insufficient to assure that the developer would provide necessary mitigation to offset projected impacts. The project is likely to generate negative impacts that go beyond Zambia's national boundary and is likely to affect several SADC Protocols and international regulations. Although the SADC legal agreements allow for state parties to carry out development projects that demonstrate high impact on poverty alleviation in country, this project does not guarantee sustainable benefits to the local communities and is likely to be a source of concern for the neighboring countries. Granted that the major socio-economic impact of the project for the local community is expected to be

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#### **Zambezi Resources secures \$5.86M in project funding**

Zambezi Resources (ASX: ZRL) has secured A\$5.85 million in funding over two years from New York-based fund Bergen Global Opportunity Fund to progress its wholly owned Kangaluwi Copper Project in Zambia to the feasibility stage. The facility is in the form of a Share Purchase Agreement under which Zambezi will issue Bergen up to A\$5.85 million worth of fully paid ordinary shares over a 24-month period. Zambezi has also completed a non-renounceable rights issue raising around \$1.14 million to go towards advancing Feasibility Study Work.

employment creation, however, the number of jobs to be created by the project is 250, none of which are guaranteed for the local community. However, the project may lead to significant loss in tourism operations which currently employs around 800 local people. It is of concern that the developer has continuously demonstrated lack of technical preparedness or commitment to meet industry and national standards for a project of this nature by submitting an insufficient EIS. Further, despite the out right rejection of the EIS and the project by the Zambia Environmental Management Authority (ZEMA), the Developer has proceeded to operate as if the project is proceeding as proposed as evidenced by various communications with shareholders. This includes securing funding through a share issue to proceed with feasibility studies for the project. This may demonstrate impunity by the developer which is likely to translate into ignoring Zambian environmental regulations once the project is operational. Going ahead in the wake of a professional decision made by a government agency mandated to protect the environment is an indication that the developer is not likely to adhere to environmental requirements by ZEMA. The developer has not demonstrated an understand of the potential and severity of the impacts from this project, the project's foot print on the local community, the country or sub-region. Therefore, there is no feasible scenario under which the proposed project would proceed without causing severe and far reaching environmental and geopolitical impacts.