



the federation for a sustainable environment

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PRELIMINARY COMMENTS ON THE MINING RIGHT APPLICATION, THE ENVIRONMENTAL IMPACT ASSESSMENT (EIA) AND THE ENVIRONMENTAL MANAGEMENT PROGRAMME REPORT (EMPR) FOR THE MELMOTH IRON ORE PROJECT

The following comments are submitted by the Federation for a Sustainable Environment (FSE) pertaining to Jindal Iron Ore (Pty) Ltd's ("the Applicant") application for a mining right (MR) and the supporting EIA and EMPr for its Melmoth Iron Ore project.

We apologise for typographical errors.

FIRST ISSUE OF CONCERN: ECOLOGICAL SUSTAINABILITY OF THE PROPOSED PROJECT

While we recognise the obligation placed upon the Minister of Mineral Resources and Energy to promote socio-economic development of South Africa's mineral resources, the Minister is specially tasked to also ensure the sustainable development of these resources within a framework of national environmental policy, norms and standards.

While the FSE concurs that in a developing country there should be developments but that development shall have to be in the closest possible harmony with the environment, as otherwise there would be development but no environment, which would result in total devastation, though, however, may not be felt in present but at some future point of time, but then it would be too late in the day, however, to control and improve the environment .

In *Fuel Retailers Association of Southern Africa v Director-General: Environmental Management, Department of Agriculture, Conservation and Environment, Mpumalanga Province, and others* (2007) (6) SA 4 (CC) the findings in judgment have relevance to the matter under consideration, namely that "*sustainable development... envisages that decision-makers guided by the concept of sustainable development will ensure that socio-economic*

developments remain firmly attached to their ecological roots and that these roots are protected and nurtured so that they may support future socio-economic developments”.

We are informed by the EIA and EMPR Report for Public Review that:

- The proposed project will consist of an open pit iron ore mine, waste rock dump, tailings storage facility (TSF), processing plant and associated infrastructure within a **greenfields site** with some species of conservation concern.
- The expansion of the South-East open pit will result in the **loss of the endangered Moist Coast Hinterland Grassland and Vulnerable Dry Coast Hinterland Grassland**.
- Melmoth falls within the Maputoland-Pondoland floristic region and is an **important centre of plant endemism. Critical Biodiversity Areas (CBA) and Ecological Support Areas (ESA) are present** within both the North and South Blocks of the study area.
- Four of the ten vegetation communities within the study area have a **very high site ecological importance** and that these four largely intact vegetation communities are highly likely to support several floral SCC that are either red-listed, rare or endemic.

The Mining and Biodiversity Guideline describes the implications for mining within Critical Biodiversity Areas as follows:

“Environmental screening environmental impact assessment and their associated specialist studies should focus on confirming the presence and significance of these biodiversity features and to provide site-specific basis on which to apply the mitigation hierarchy to inform regulatory decision-making for mining water use licences and environmental authorisations.*

**(The mitigation hierarchy approach involves the avoidance or prevention of loss to biodiversity and ecosystem services; the minimisation of impacts on biodiversity and ecosystem services; concurrent or progressive rehabilitation; and offsetting of significant residual negative impacts on the biodiversity or ecosystem services.)*

If they are confirmed, the likelihood of a fatal flaw for new mining projects is very high because of the significance of the biodiversity features in these areas and the associated ecosystem services. These areas are viewed as necessary to ensure protection of biodiversity environmental sustainability and human well-being.

An EIA should include the strategic assessment of optimum, sustainable land use for a particular area and will determine the significance of the impact on biodiversity

This assessment should fully take into account the environmental sensitivity of the area, the overall environmental and socio-economic costs and benefits of mining, as well as the potential strategic importance of the minerals to the country.

Authorisations may well not be granted. If granted the authorisation may set limits on allowed activities and impacts, and may specify biodiversity offsets that would be written into licence agreements and/or authorisations.”

The FSE calls upon the decision-maker to consider the abovementioned guidelines in its decision.

According to the Terrestrial Ecological Study Report sampling was undertaken at the end of April 2021, that is, at the end of summer. In the light of the high risk of the proposed mining on the critical biodiversity areas, it is crucial for the EIA to be conducted at the appropriate seasons and for the biologically relevant time periods. The influence of seasonality on the detection of flora and fauna, and evaluation of biodiversity, is well recognised worldwide. For example, within the Grassland Biome (in casu, the project area falls within the endangered Moist Coast Hinterland Grassland and Vulnerable Dry Coast Hinterland Grassland) most plant species and smaller fauna experience seasonal dormancy, whereas some avian species are migratory. At worst, if not conducted in appropriate seasons and for biologically relevant time periods, the EIA could under-represent biodiversity by almost 95%. The assessment of hydrology too requires a full hydrological cycle to encompass and assess ecosystem goods and services. A preliminary, conservative estimate of value of ecosystem services in South African grasslands is ZAR9.7 billion per annum or ZAR29 000/km² of grassland per annum¹. With respect to social aspects, rural livelihoods (in casu, the area surrounding the proposed project is classified as fully rural/non-urban) of the poor in South Africa are highly dependent on ecosystem goods, and potential impacts on community resource bases can rarely be assessed within such short time periods.²

The FSE hereby alleges that the assessment of the ecological sustainability of the project was not conducted in accordance with the above-mentioned ecologically sound principles. The FSE re-iterates that it is crucial that additional in-field sampling be conducted during the appropriate seasons to better inform the ESIA for the project.

SECOND ISSUE OF CONCERN: BEST PRACTICABLE ENVIRONMENTAL OPTION

The National Environmental Management Act, 107 of 1998 (NEMA) calls for the implementation of the Best Practicable Environmental Option (BPEO), which is defined as *“the option that provides the most benefit or causes the least damage to the environment as a whole, at a cost acceptable to society, in the long term as well as in the short term”*.

The EAP argued the need and desirability of the proposed project by positing that the proposed project will create 800 jobs (although the levels of skills required for these jobs are to be identified and whether or not the project affected communities possess the necessary skills) and indirect jobs for 1 600 persons as well as economic benefits in terms of Social and Labour Plan projects.

The FSE, as member of the Section 11 Advisory Committee of the South African Human Rights Commission, wishes to here interpose that, pursuant to the 2016 National Hearings of

¹ De Wit, M.P. and Blignaut, J.N. (2006). Using monetary valuation results with specific reference to grasslands in South Africa: Making the case for the value of Ecosystem Goods and Services provided in the Grassland Biome. Report No SO-6002 for the South African National Biodiversity Institute’s National Grasslands Biodiversity Programme. www.sanbi.org. 18 p.

² Dovie, D.B.K., Witkowski, E.T.F. and Shackleton, C.M. (2005). Monetary valuation of livelihoods for understanding the composition and complexity of rural households. Agriculture and Human Values Vol. 22 pp 87-103.

the South African Human Rights Commission on the Underlying Socio-Economic Challenges of Mining Affected Communities in South Africa, the Commission found:

... “the current social and labour plans (SLPs) system does not adequately address the negative impacts of mining activities and that systemic issues in the design of and compliance with SLP commitments limit their ability to drive socio-economic transformation in mining affected communities. In addition, the process of developing SLPs should be consultative, and should respond to input by communities regarding required socio-economic outcomes.

The Commission accordingly found that there is an immediate need for the DMR to develop clear and binding requirements for the content of SLPs and to ensure that they are aligned to EIAs and EMPs and include environmental information on the potential impacts of mining and post closure quality of land.

There is also an immediate need for the DMR to enforce compliance and develop sanctions for those mining companies that fail to comply with their SLP commitments.

The Commission found that the DMR should define the minimum amount of financial contribution towards the SLP projects. This amount must be ring-fenced. The DMR should further take the lead in establishing a task team, to include the CoM, National Treasury, the Department of Planning, Monitoring and Evaluation, community-based organisations and other relevant stakeholders, to conduct research into the current financial regulation of the mining industry...”

In the light of the findings by the SAHRC and in the absence of compliance by the DMRE with the Commission’s aforementioned directives, promises by a mining company for recruitment, procurement and skills development in terms of its proposed SLP, ring hollow.

It should be noted that mining by its very definition is unsustainable since it depletes a non-renewable resource. It should also be noted that as early as 1987, the US Environmental Protection Agency recognised that “.....problems related to mining waste may be rated as second only to global warming and stratospheric ozone depletion in terms of ecological risk. The release to the environment of mining waste can result in profound, generally irreversible destruction of ecosystems.”³

While the project affected communities may benefit during the life-time of the project (in casu, the proposed life of mine is 25 years), future generations may well have their livelihood opportunities and their quality of life reduced due to the post-closure socio-economic and environmental unsustainability of the land. Rural communities are reliant on land for their livelihoods, and often have been so for a long time. Land provides opportunities for food security albeit it often subsistence farming, for tourist activities and access to forest food and water. According to the EIA/EMPR the agricultural production within the North and South Blacks are mostly subsistence farming, while the Nkwalini valley produces a variety of horticultural crops.

³ European Environmental Bureau (EEB). 2000. The environmental performance of the mining industry and the action necessary to strengthen European legislation in the wake of the Tisza-Danube pollution. EEB Document no 2000/016. 32 p

The EIA/EMPR identified tourism and agriculture as the current vital sectors of the economy of the area.

The EIA/EMP also identifies the close ties the residents have to the land. It is of the utmost importance that the Applicant recognises and accommodates these close ties. Failure to do so can destroy the fabric of a community as well as its livelihood opportunities.⁴

The EIA/EMPR ranked the following impacts, notwithstanding mitigation and management measures, as high and very high:

- Impact on ground water quality
- Reduced surface water quality
- Impacts on vegetation communities and implications for threatened ecosystems and biodiversity conservation
- Impacts to species and threatened species conservation
- Physical loss of modification of freshwater habitat
- Alteration of hydrological and geomorphological processes
- Impacts to wetlands and aquatic ecosystems due to reduced water quality
- Impact on ambient air quality – community health
- Impact on ambient noise levels
- Impact of change of land use from subsistence farming to mining
- Impact on soil compaction
- Impact of soil pollution
- Impact on landscape and visual aspects
- Impact of changing farming practices, market options and sources of nutrition
- Changes in access to health care
- Loss of cultural heritage resources
- Relocation of graves
- Impact on road users and traffic safety

According to the EIA/EMPR one of the major positive impacts during the operational phase is the positive impact due to the use of iron in renewable energy infrastructure development. It is necessary to explain how this “positive” impact will translate into positive impacts for the mining affected communities.

The FSE is of the considered opinion that the proposed open cast iron ore mine is not the BPEO for this rural and biodiversity important area.

THIRD ISSUE OF CONCERN: IMPACTS ON WATER QUANTITY AND QUALITY

The project will include, besides the open pit, a waste rock dump, a tailings storage facility – to be established in a very shallow groundwater and low-lying area near to the Mhlatuze River, which hosts the Goedertrouw Dam – a processing plant and associated infrastructure.

⁴ Hoadley E.M. and Limpitlaw, D. 2008. Preparation for Closure – Community Engagement and Readiness Starting with Exploration.

The proposed project will require raw water for its processes. It is estimated that the mining operations will require water consumption of 11.56Gl/a. The Mhlathuze catchment is currently over allocated and additional water will have to be generated in the catchment for the proposed project. One of the interventions proposed by the EAP is to exploit the water resources from the Tugela Transfer Phase 2. The proposed project will take up a third of the new supply.

According to the EIA/ EMPR within the project area, less than half of the households has access to municipal water. It logically follows that the proposed project will impact adversely on the water availability for the project affected communities. Access to sufficient water is enshrined in section 21 of the Bill of Rights of the Constitution of the Republic of South Africa.

Within the study area (South Block) 599 river/stream units and 22 wetlands were identified and in the North Block 331 river/stream units and 63 wetland were identified. The Mfulu River which runs through North Block is largely in a natural condition with its Ecological Importance and Sensitivity (EIS) rating is high. The Mhlathuze River within the South Block has a High EIS.

The potential of Acid Mine Drainage and the impacts of leachate/storm water runoff from the Waste Rock Dump and the proposed Tailings Storage Facility on the wetlands and river/stream units have not been adequately assessed.

FOURTH ISSUE OF CONCERN: PIECE MEAL APPROACH

The project will include the establishment of a Tailings Storage Facility. Tailings Storage Facilities (TSFs) are engineered structures that are designed to contain tailings and to manage associated water. TSFs are among the largest dams and structures in the world, and will stand in perpetuity. A catastrophic release of a large amount of tailings could lead to long term environmental damage with huge cleanup costs.

To manage mining facilities responsibly, the TSF owner must understand the physical and chemical risks associated with the TSF and implement controls to reduce risks relating to potential health, safety, environmental, societal, business, and economic impacts in line with regulations.

If poorly designed, constructed or managed, tailings storage facilities represent a significant risk to local communities and ecosystems, especially in downstream environments.

The tailings in TSFs, if not managed properly, can have chronic adverse impacts on health, wellbeing and environmental integrity, with pollution from effluent and dust emissions being potentially toxic to humans, animals and plants.⁵

The current EIA/EMPR has not assessed the risks or possible impacts of the proposed TSF and the tailings (e.g. waste characterization and leachate potential). IAPs are not informed regarding the design of the TSF, the site selection, the tailings deposition method, the management of the proposed TSF and whether or not the TSF will be lined.

⁵ <https://www.icmm.com/en-gb/our-work/innovation-for-sustainability/tailings>.

Furthermore, the proposed project will require a Water Use Licence Application and a decision by the Department of Water and Sanitation in this regard.

The One Environmental System calls for an agreement between the Minister of Minerals and Energy and the Minister of Water and Sanitation to synchronise time frames in the consideration and issuing of the authorisations in their respective legislation.

According to the EIA/EMPR the land is currently rural and extensively used for agriculture. It is assumed that the land upon which the proposed activity will be undertaken, have been rezoned for mining. Please advise.

The resettlement action plan is also proposed but is not part of the EIA/EMPR.

The EIA/EMPR also identified a number of gaps in information e.g.

- residual impacts to both terrestrial and freshwater habitat,
- the proposed biodiversity offsets,
- The sustainable post mining land use.

With reference to the post mining land use, Regulation 56 of the MPRD Regulations prescribes:

56 (e) the land is rehabilitated, as far as is practicable, to its natural state, or to a predetermined and agreed standard or land use which conforms with the concept of sustainable development; in accordance with the provisions of the National Environmental Management Act, 1998, the Financial Provision Regulations, 2015 and the Environmental Impact Assessment Regulations, 2014; and

The requirements of the MPRD Regulation 56 entails that interested and affected parties must be involved in the agreements regarding future land use of the affected area and thus in the decisions regarding the establishment of objectives for such future land use, as well as in discussing the alternatives for engineering interventions.

The DMRE, as the competent authority, will only be in the position to make an informed decision, if the above information is available and after IAPs have been consulted regarding the above processes. It will not be lawful to grant an environmental authorisation subject to further assessments being undertaken on important components of the proposed project, after the authorisation has been granted. This seems to be self-evident; it is entirely possible that the deferred assessments may reveal an unacceptable environmental impact which, but for the DMRE's decision, would have prevented the project from proceeding.

FIFTH ISSUE OF CONCERN: FREE, PRIOR AND INFORMED CONSENT

While the FSE is cognisant of the far reaching entitlements which flow from the right to mine, namely that the holder of a mining right is entitled to:

- To enter the land to which the right relates together with his or her employees;
- To bring onto that land any plant, machinery or equipment;

- To build, construct or lay down any surface or underground infrastructure which may be required for the purposes of prospecting or mining;
- To prospect or mine for his or her own account on or under the land and to remove and dispose of any mineral found;
- Subject to the National Water Act, 36 of 1998, to use water from any natural spring, lake, river or stream situated on or flowing through the land;
- To carry out any other activity incidental mining provided this does not contravene the provisions of the NEMA and the MPRDA;

and that the consent of the landowner or affected communities is not required. Recent rulings by our courts have, however, established that consent may be required from tribal/traditional authorities. According to the EIA/EMPR the project area is under tribal/traditional authority administration.

It is furthermore of concern to the FSE that traditional leaders in some cases do not consult properly with the communities and do not adequately represent the interests of the communities. It is crucial that the Applicant and its EAP ensure the inclusion of all members of the project affected communities in the public participation process and give equal weighting to the concerns and comments of all parties. Failure to do so may result in ignoring the most affected voices within a community.

SIXTH ISSUE OF CONCERN: THE EAP'S NOTIONAL INDEPENDENCE AND THE DMRE'S CONFLICT OF INTEREST

In *Earthlife Africa v DG of DEAT and Eskom Holdings Ltd* Case no 7653/03, the CPD Judgment 26-1-2005 it was found that consultants were notionally independent in the sense that they are not institutional part of the Applicant. They are, however, employed by the Applicant to act as its agent and the purpose of their engagement was to obtain the authorisation the Applicant seeks.

It is therefore of no surprise that the EAP in this particular application recommends the authorisation of this application, notwithstanding the identified risks.

The FSE furthermore – in alignment with the SAHRC's findings – submits that the DMRE is not the appropriate authority for granting and enforcing environmental authorisations with respect to mining. The DMRE lacks the expertise (and political will) to enforce compliance with environmental laws and legally binding EMPRs.⁶ Case law has shown how the DMRE has been neglecting its enforcement duties.⁷

⁶ Glenn Ashton 'An example of the impacts of adopting the 'One Environmental System' of mining governance: some lessons in environmental governance from MRC's Tormin mine' 2017 Conversation around Transparency and Accountability in South Africa's Extractive Sector' 17.

⁷ *S v Blue Platinum Ventures (Pty) Ltd* 2015 JDR 1740 (GP); *S v Nkomati* unreported (Nelspruit Regional Court) case no 412/13; *Mineral Sands Resources (Pty) Ltd v Magistrate for the District of Vredendal, Kroutz NO and Others*(18701/16) [2017] ZAWCHC 25)

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CEO: FEDERATION FOR A SUSTAINABLE ENVIRONMENT

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