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Dear Ms de Waal,

**COMMENTS ON THE PROPOSED JINDAL MELMOTH IRON ORE PROJECT & COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT ASSESSMENT REPORT ("EIAR") AND ENVIRONMENTAL MANAGEMENT PROGRAMME (EMPr) ("the Application") - DMRE KZN 30/5/1/2/2/10108MR**

## I. INTRODUCTION

1. These comments are submitted on behalf of the South Durban Community Environmental Alliance, Durban office ("SDCEA"), the Nkwaleni Water User Association ("NWUA") and the Nkwalini and Surrounds Supporting Sustainable Rural Development community organisation ("NSSSRD").

2. The Application is for environmental authorisation for the proposed Jindal Melmoth Iron Ore Project ("the Project") in the Mthonjaneni Local Municipality in KwaZulu-Natal. The North Block is 8467 ha, and the South Block is 11 703 ha in extent. The Project is to develop an open pit iron ore mine and processing facility on the site to extract 32 million

tonnes of iron ore per annum – a total area of 202 km$^2$. According to the EIAR, a substantial number of properties form part of this Mining Right Application.[1]

3. According to the Non-Technical Summary, the Project will be done in a phased approach and the Mining Right Application for which this EA is applied only includes mining in the south-eastern section of the South Block, with Jindal ultimately consolidating the North and South Blocks. This, however, is incorrect. According to the advert for notice of public participation[2], Jindal's intent with the MR application is to consolidate their North and South Block Prospecting Rights (PR) into a single MR. The EIA is considering the entire extent of the two PR blocks, but with a specific focus on the Phase 1 area of the MIOP. The EAIR confirms this: "The MRA and EIA consider the entire extent of the North and South Blocks, but with a specific focus on Phase 1 of the Jindal MIOP as described in this section."[3] (our emphasis).

4. Further, there is infrastructure which is acknowledged to be integral to the mining operation but which has been excluded from this EIA process and Application, most importantly the Tailings Storage Dam (TSF)[4].

5. The environmental impacts of the proposed activities that were identified and assessed, and the limited public participation done was only in relation to the limited geographic area of the small section in the southeastern section of the South Block known as the South East Pit. The EIAR is, therefore, woefully inadequate for the 202 km$^2$ and the infrastructure integral to the mining operation, such as the TSF, it is supposed to have assessed.

6. At the core of this submission is:

    a. the failure to show need and desirability for the Project;

    b. the inadequate public participation process; and

    c. the voluminous lack of information makes it impossible to properly determine all the impacts of the Project, including cumulative impacts.

7. These constitute justifiable grounds for refusal of Environmental Authorisation ("EA").

8. Further, it is our submission that the Environmental Assessment Practitioner ("EAP") has acted in a highly unprofessional manner to have recommended this project in spite

[1] Non-technical summary paragraph 1; EIA page iv.
[2] Appendix C, page336
[3] EIAR, page 41
[4] EIAR, page 57.

of the fatal flaws including gaps evident in the EIAR and public participation process. It is indicative of the EAP not being independent and/or incompetent.

## II. SUBMISSIONS

9. It is our submission that there are so many fatal flaws to the Project that it renders it impossible for the EA to be granted. These are:

    a. The Mhlathuze catchment is overallocated, and there is no prospect of supply for the Project without severely impacting current water users.

    b. Vast areas of agricultural land (commercial and small-scale farming) will be destroyed impacting on food security, jobs and the local and regional economy (formal and informal).

    c. Vast areas of ecological importance and several red data species will be destroyed.

    d. Aspects integral to the mining operation have not been assessed such as the tailings storage facility and transport infrastructure (project splitting), thus preventing the proper consideration of cumulative impacts.

    e. Public participation is completely inadequate.

    f. The voluminous amount of gaps and uncertainties make it impossible to adequately assess the impact of the Project.

10. These will be dealt with in detail below.

### a) Water

11. According to the EAIR, the Mhlatuze River sample sites fall within the 'B: Good' ecological category for the North-Eastern Uplands Ecoregion – Lower Geomorphic Zone. The middle sample site (SW-Lowland River- 461-02) falls within the 'A: Natural' ecological category. These outcomes emphasize that the water quality conditions along the sampled length of the Mhlatuze River are good, with the system being able to host several highly sensitive aquatic macroinvertebrate taxa.[5]

[5] EIAR, page 145

12. The assessed reach of the Mhlatuze River (SW-Lowland River-461) was rated as being of High EIS[6] in that:
    a. The rivers located within the South Block are considered Least Threatened in terms of conservation threat status of the NBA and are not considered FEPAs.
    b. The diversity of instream habitat types and the perennial nature of flow along river reach R01 means that the unit is well suited to provide good quality refugia for aquatic biota during time of environmental stress.
    c. The importance of instream and riparian habitat of the reach R01 is further supported by high levels of connectivity of habitat, both laterally and longitudinally, with the buffer around this river remaining largely intact.
    d. This suggests that the assessed reach of the Mhlatuze River serves as an important corridor that supports the movement of local wildlife.
    e. The presence of this unique and range restricted species within the rivers makes these systems important habitats.
    f. The high flow volume of the system means it can buffer minor changes in flow conditions and water quality without incurring major impacts to habitat and biota.[7]
13. Large scale mining operations have the potential to contaminate groundwater resources through a number of activities across the various phases of mining. Seepage from the Waste Rock Dump (WRD), temporary ore stockpiles, the Tailings Storage Facility (TSF) and potentially hazardous leaks or spills. Iron ore tailings may contain large amounts of SiO2, Si, Fe2O3, Fe3O4, Fe (OH), and traces of Hg, Se, Cu, Pb, Zn, As, Mn etc. that are harmful to humans, even at low levels. The potential receptors are the groundwater resource; and neighbouring groundwater users.
14. The South-East pit crosses a sub-catchment divide. Mountain and Mountain Headwater Streams to the north of the divide drain into SE-Upper Foothill River-466, which then drain into the Mhlatuze River approximately 11 km downstream of the Goedertrouw Dam wall. Mountain and Mountain Headwater Streams to the south of the divide drain directly into the Mhlatuze River, approximately 5 km downstream of the Goedertrouw Dam wall. The feasibility of the size and location of the pit being adjusted to prevent it

[6] EcoStatus or Ecological Status refers to an integrated ecological category for rivers. In other words, the ecological category derived for each of the biological response components for a particular river is used to derive an overall, integrated ecological state or EcoStatus. A High EIS score means that the river status is important. (Source: https://www.dws.gov.za/iwqs/rhp/rh_assessment.html#:~:text=What%20is%20EcoStatus%3F,integrated%20ecological%20state%20or%20EcoStatus.)

[7] EIAR, page 149

crossing to the southern side of the catchment divide was considered. However, in order to mine the iron ore at the Jindal MIOP, a 32 mtpa mine has been proposed to ensure economic viability. The pit size and shape cannot be scope for change.[8] (our emphasis)

15. The proposed processing plant location also coincides with the headwater areas of two Mountain Headwater Streams, a single wetland, and a single Mountain Stream. Additionally, the proposed location of the incoming power yard coincides with a single wetland while the primary crusher advances into the preliminarily recommended watercourse buffer zone area for a Mountain Headwater Stream and a Mountain Stream. According to the EIAR, there is limited scope for alternate sites due to the topography of the area, which requires that terraces be built for the processing plant and substation and suitable space for this size of infrastructure is limited.[9]

16. Groundwater is expected to be significantly impacted during the operational phase when the mining of the open pit will result in the ingress of groundwater into the open pit and the consequent dewatering of adjacent aquifers. Where drawdown exceeds 5 m, water supply may be influenced. The extent of drawdown where it is likely to exceed 5 m could extend up to 2.5 km in a westerly direction, 1.6 km in a southerly direction, 1.2 km in a northerly direction, and 1 km in an easterly direction, from the pit.[10] Groundwater users that fall within this area are expected to have a drawdown in water level in supply boreholes.

17. From the hydrocensus results, it is known that groundwater is used by neighbouring farms for irrigation and drinking water (posttreatment). The larger commercial farms in the Nkwalini Valley use water from the Mhlatuze catchment.

18. The EIAR further states that "[t]he mining operations would require water for the processing plant, dust control, for vehicle wash down, for the change house, and office use. A water supply analysis has been undertaken and the potential abstraction of water from the Mhlathuze catchment has been explored. The Mhlathuze catchment is currently overallocated and as such the DWS may only consider new allocations if the applicants contribute to interventions, which would generate additional water in the catchment."[11]

[8] EAIR, page 244
[9] EIAR, page 245
[10] EAIR, page 247
[11] EIAR, page vi

19. The EAP confirms that a detailed study has not been conducted on the availability of additional water resources.

20. In this water-stressed area, water is a particularly sensitive resource. The impacts of the Project's operations on strained water resources could result in community volatility. Climate change will result in increased rainfall variability, increasing drought occurrences, an increase in clean water scarcity and an overall prediction of decreasing rainfall.

21. As a result of this, there is a high level of uncertainty around the ability to supply and deliver water to the Project. With the construction of a system being complex and costly, the unviability and unsustainability of the Project is High.

22. Many of the uncertainties and gaps in knowledge in the EIAR relate to groundwater and surface water. These relate to water level and water quality data, aquifer characterisation and no water level or aquifer parameters for the WRD area. This information is fundamental to assessing the impact of the Project on the groundwater. Without this, the EAP cannot state what the impact will be on the groundwater and other land users.

23. Similarly, the information about surface water was based on several assumptions, including that the topographic data provided by Jindal was sufficient for hydraulic modelling and able to generate cross sections suitable to contain flow.

24. This does not instil confidence in the viability of the Project without substantial negative implications for the other water users in the area and downstream.

25. It seems completely illogical to continue with the application when there is already a deficit in the catchment and no idea where additional water resources will come from. On this basis the EAP should recommend that the EA must be refused.

26. The gaps in the water studies will be dealt with further below.

**b) Impact on Food Security**

27. Food security means having enough food to fully meet basic needs at all times. According to the Food and Agricultural Organization of the United Nations, "*Food security is a situation that exists when all people, at all times have physical, social and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life*".[12]

[12] FAO, 2001

28. A report by Food and Agriculture Organisation (FAO) in 2018[13] warned that the world is not on track to eradicate hunger by 2030 as envisioned in the Sustainable Development Goals (SDGs). If we are to achieve a world without hunger and malnutrition in all its forms by 2030, it is imperative that we accelerate and scale up actions to strengthen the resilience and adaptive capacity of food systems and people's livelihoods in response to climate variability and extremes.

29. It is a priority for all countries to ensure that actions across and within sectors such as environment, food, agriculture and health, address the negative impacts and threats that changing climate variability and increased climate extremes pose to people's food security, access to healthy diets, safe nutrition and health.[14]

30. According to information on the Department of Statistics website, the involvement of households in agricultural activities for subsistence farming can play an important role in reducing the vulnerability to hunger of rural and urban food-insecure households. The results show that out of 16,2 million households, about 2,5 million households (15,6%) were involved in agricultural activities in South Africa in 2017. Provinces that are predominantly rural and with high levels of poverty such as Limpopo (25%), Eastern Cape (20%) and KwaZulu-Natal (20%) had the highest proportions of households that relied on agricultural activities to supply their own food. Most households involved in agricultural activities were involved in the production of fruits and vegetables, grain and other food crops, as well as in livestock and poultry farming. Although the main source of income for these households was social grants, most households involved in agricultural activities indicated that the main reason for their involvement is to supplement food for the household.[15]

31. Over and above the impact of the clearing of land and abstraction of water for the Project, the mine will severely impact the agricultural sector of the area both for local food production and for export. Many of the farmers in the Nkwalini area are 100% local traders in mangoes, citrus, bananas and sugar cane. Unfortunately, in the public meeting online, the EAP failed to recognise this and stated that "The commercial farms in the area are mainly citrus farmers producing crops for export."[16] This is incorrect.

32. The EIAR's specialist study reports:

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[13] FAO, IFAD, UNICEF, WFP and WHO. 2018. *The State of Food Security and Nutrition in the World 2018. Building climate resilience for food security and nutrition*. Rome, FAO.
[14] Ibid, p vi
[15] http://www.statssa.gov.za/?p=12135
[16] Minutes of online meeting held on 16 August 2023, page 11

"*The main land use of the South Block, including the proposed development footprint, is subsistence farming. The subsistence farming consists of livestock grazing and crop cultivation. However, the crop fields are small and scattered alongside the homesteads. No large commercial agricultural fields are present within the South Block. However, rainfed crops and horticultural crops are cultivated outside the South Block. The most prominent production area located southeast of the south-eastern boundary of the South Block, is the Nkwalini valley. In this area, a variety of horticultural crops are produced under irrigation that include citrus, macadamias, bananas and passion fruit. Other areas consist of irrigated sugar cane*."[17]

And further that:

"[t]*he infrastructure footprint of the proposed project includes five different land capability classes with Class 09 and Class 08 land capability, suitable for rainfed crop production. The activities of the different project phases will negatively impact soil quality through soil compaction, disturbance of soil horizon organization, soil pollution and increased risk of soil erosion (impacts rated from Section 10.2.3 onwards). The degradation of soil quality will reduce the soil suitability in areas of impact, and this will lower the current land capability or destroy it so that it becomes unsuitable for any agricultural production. <u>The loss and/or reduction of the current land capability is considered a permanent impact that remains the same during all project phases. It is not expected that the pre-mining land capability will be restored after mine closure</u>."[18]*

And:

"*The cumulative impact of land use change, has <u>high negative</u> significance. The area currently proposed for the Tailings Storage Facility and Return Water Dam, is part of a larger farming area in the Nkwalini Valley where <u>the main land use is irrigated agriculture</u>. Farmers in the Nkwalini Valley mostly produce high value horticultural crops such as citrus, macadamias, passion fruit and sugar cane. The climate of the Nkwalini valley is highly suitable for crop production with high rainfall and warm winters. The construction and operation of <u>the Tailings Storage Facility and Return Water Dam in this area will be a permanent and severe change of land use that will occur as all production on the 1000 ha will immediately stop</u>. It is also not anticipated that the infrastructure will be decommissioned after mining has ceased and therefore, <u>agricultural production will never be restored</u> on the specific site. While mitigation*

[17] Appendix K, page 61
[18] Appendix K - Agricultural Agri-System Study, page 47

*measures can prevent impacts outside of the site's boundaries such as soil pollution and erosion, the impact of the land use change cannot be mitigated*."[19]

33. The community agricultural activities in the Project area include stock farming on the vegetated grazing areas and cash crop agriculture on ploughing fields. The community includes farmers engaged in small-scale fruit and crop production on a hectare or less to forestry farmers on 5–10 hectares. Most families also survive on welfare grants and supplement these with subsistence agriculture and natural resources harvested from common land. Elderly women head many of these families.

34. A report published by LARC[20] in 2021 in the Makhasaneni area (which falls in North Block) details the livelihood strategies of the occupiers and rightsholders on communal land. Some of the key findings of the LARC study include:

    a. "Almost all households in Makhasaneni relied on land-based livelihood activities to some extent to meet various needs such as to support general home consumption requirements, generate cash income through trade and provide a safety-net in times of crisis.

    b. "Land-based livelihood strategies were typically used in combination with each other and included (a) home garden and field cultivation; (b) livestock ownership, (c) use of wild resources (such as firewood, poles or medicinal plants), and (d) small-scale forestry.

    c. "When considering cash and non-cash (i.e. home consumptive) economic value across livelihood sectors, land-based livelihood activities (R96 647) surpassed off-farm (R32 716) and grant (R27 551) income, representing the highest contributing sector to the overall livelihood portfolio (58%).

    d. Almost all cultivator households grew crops for home consumption (98%).

    e. A range of 26 different crops were cultivated for this purpose, with a mean of 8±3 crops per household. Green maize (i.e. maize cobs) was the most widely cultivated crop for home consumption (84% of cultivator households), alongside other primary crops such as spinach (58%), wild leafy vegetables (imifino) (56%), pumpkin (53%), tomato (49%) and cabbage (47%)… The net, income generated from selling produce ranged from R278 - R133 962 per household

[19] Page 60, Appendix K of EIAR - Agricultural Agri-System Study
[20] Land and Accountability Research Centre: Land-Based Livelihoods Matter in Makhasaneni, Herd-Hoare, Mahapa, Mngqibisa (2021)

per annum, with a mean of R30 124±30 843… The trade of live animals for cash income was widely used, harnessed by approximately half of all livestock- and poultry-owning households (cattle: 59%; goats: 54%)… Half of all households were involved in small-scale timber production. ”

f. Land-based livelihood activities are not just strategies for survival or economic self-sufficiency but also relate to cultural and social agrarian identity.

35. Makhasaneni is one of 20 villages in the Project area, all of which are likely to rely on land-based livelihoods in a similar way. The effect of the Project will have a huge negative impact on agricultural land, commercial and subsistence farms and water resources, thereby threatening food security and thousands of livelihoods.

36. The Constitution states that “everyone has the right to sufficient food and water”[21] and that “the State must formulate reasonable legislative efforts and take other measures within its available resources, to achieve the progressive realisation of these rights.”[22] This, combined with the need for South Africa to eradicate hunger and ensure climate resilience, makes any development that risks food security unviable.

37. It is essential for the future of South Africa that we aim to protect and ensure food security, eradicate hunger, and ensure climate resilience. NEMA requires that all developments be socially, economically and environmentally sustainable and any decision made must be appropriate in the circumstances.[2]

38. The Project is completely contrary to this.

39. It is our submission that the Project will not only affect subsistence farmers but will also sterilise large areas of commercial agriculture and land with high potential agricultural potential. This will result in a net decrease in food supply.

40. Whatever the supposed benefits of the Project may be, this cannot outweigh the need to protect and preserve prime agricultural land. The Project area and beyond has been utilised for agricultural activities for generations and can go on to be used for such provided unsustainable developments are avoided. One of the biggest threats to the retention of productive agricultural land is the conflict between agriculture and mining land uses. It is vital to preserve the current land use, namely agriculture.

41. On this basis the EAP should recommend that the EA cannot be approved.

[21] Section 27(1) (b)
[22] Section (27) (b)

### c) Flora, Fauna and Environmental harm

42. Countries across the world are reliant on a range of services that are based around their natural ecosystems. Biodiversity and Ecosystem Services (BES) include such necessities as food provision, water security and regulation of air quality that are vital to maintaining the health and stability of communities and economies. In a recent study, the findings of which are published in an article in Swiss Re,[23] 24 55% of the global GDP is dependent on high-functioning biodiversity and ecosystem services. Among G20 economies, South Africa and Australia top the rankings of fragile BES. The well-known impact of water scarcity is a driver for these countries, alongside factors such as coastal protection and pollination. The report discusses how addressing BES challenges through simple preservation actions can have significant impacts. [Our emphasis].

43. As climate change becomes more severe, harmful influences on ecosystem services are expected to outweigh potential benefits in most regions of the world.[25]

44. Land is a critical asset and plays a vital role in the context of sustainability. South Africa is one of the most biologically diverse countries in the world, after Indonesia and Brazil,[26] and only through sustainably managing our land will we be able to manage the inevitable environmental challenges that are arising as a result of the climate crisis.

45. Preserving South Africa's ecosystems and biodiversity is not simply a 'conservation mindset'. It is vital for the ongoing sustainability of the county's economy and ability to survive the climate crisis.

46. The Project is fatally flawed in that the EIAR reports that:

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[23] https://www.swissre.com/media/news-releases/nr-20200923-biodiversity-and-ecosystems-services.html 24 https://www.swissre.com/media/news-releases/nr-20200923-biodiversity-and-ecosystems-services.html?fbclid=IwAR2au9C-9ZwYKmelxyBEp1b-iCaHfIDsoE1mjQ6h0vPYxN_TeXOWGdgDvAE; 23 September 2020 and https://www.swissre.com/dam/jcr:a7fe3dca-c4d6-403b-961c-9fab1b2f0455/swiss-re-institute-expertise-publication-biodiversity-and-ecosystem-services.pdf

[25] PCC (Intergovernmental Panel on Climate Change) 2014: Climate Change 2014. Impacts, Adaptation and Vulnerability. Part B: Regional Aspects. Retrieved 29. June 2020 https://www.ipcc.ch/site/assets/uploads/2018/02/WGIIAR5-PartB_FINAL.pdf and. IPCC (Intergovernmental Panel on Climate Change) 2019: Climate Change and Land. https://www.ipcc.ch/site/assets/uploads/sites/4/2019/11/03_Technical-Summary-TS.pdf and https://www.ipcc.ch/site/assets/uploads/sites/4/2020/02/SPM_Updated-Jan20.pdf

[26] https://www.sanbi.org/about/about-sanbi/

a. More than half the south-western block is flagged as either CBA: Optimal[27] or CBA: Irreplaceable,[28] while approximately half of the south-eastern and central southern blocks have been flagged as CBA: Optimal. This suggests that the proposed mining development may have a significant negative impact on the provincial conservation targets, potentially compromising EKZNW's ability to meet these targets.'[29]

b. Large areas of the South Block are areas of high biodiversity value, protected areas or indigenous forests. Mining in these areas would be in direct conflict with meeting minimum conservation targets that need to be met at municipality level, and therefore, these areas should be avoided. [30]

c. Two floral SCC (high conservation value) were identified: Sensitive Species 191 (Vulnerable) and Butterfly Iris (Near Threatened, South African Endemic). As these two red-listed plant species have been identified, the sensitivity of the Project is considered to be Very High.[31]

47. In addition to the two threatened plant species occurring on site, which are protected under the National Environmental Management: Biodiversity Act, there are several plant species that are protected under the Natal Conservation Ordinance and National Forest Act that will also require relevant plant permits from the relevant competent authorities.[32]

48. According to the EIAR's specialist Terrestrial Biodiversity Preliminary Impact Assessment Report:

"*This clearly illustrates the importance of the site for supporting a range of plant and animal species and associated ecological processes. Development will have a significant detrimental impact on biodiversity which has been rated as being of high significance, even under a good (post) mitigation scenario. If approved, compensation would be required to offset the residual impacts both on species of conservation concern and on terrestrial habitats. Such a plan would need to be informed by further*

[27] "Critical Biodiversity Area: Optimal (CBA 2)" means a CBA that has been selected as the best option for meeting Biodiversity Targets based on complementarity, spatial efficiency, connectivity and/or avoidance of conflict with other land or resource use. (Source: https://www.dffe.gov.za/sites/default/files/docs/nationalbiodiversityoffsetguideline2021october.pdf)
[28] "Critical Biodiversity Area (CBA): Irreplaceable (CBA 1)" means a CBA that is essential for meeting biodiversity targets because there are insufficient other options for meeting biodiversity targets for the features associated with the site. (Source: https://www.dffe.gov.za/sites/default/files/docs/nationalbiodiversityoffsetguideline2021october.pdf)
[29] Page 172, EIAR
[30] EIAR, page 174
[31] EIAR, page 183
[32] EIAR, page 191

*supplementary assessments to ensure that impacts can be quantified more accurately and to inform the offset design process*."[33] [Our emphasis]

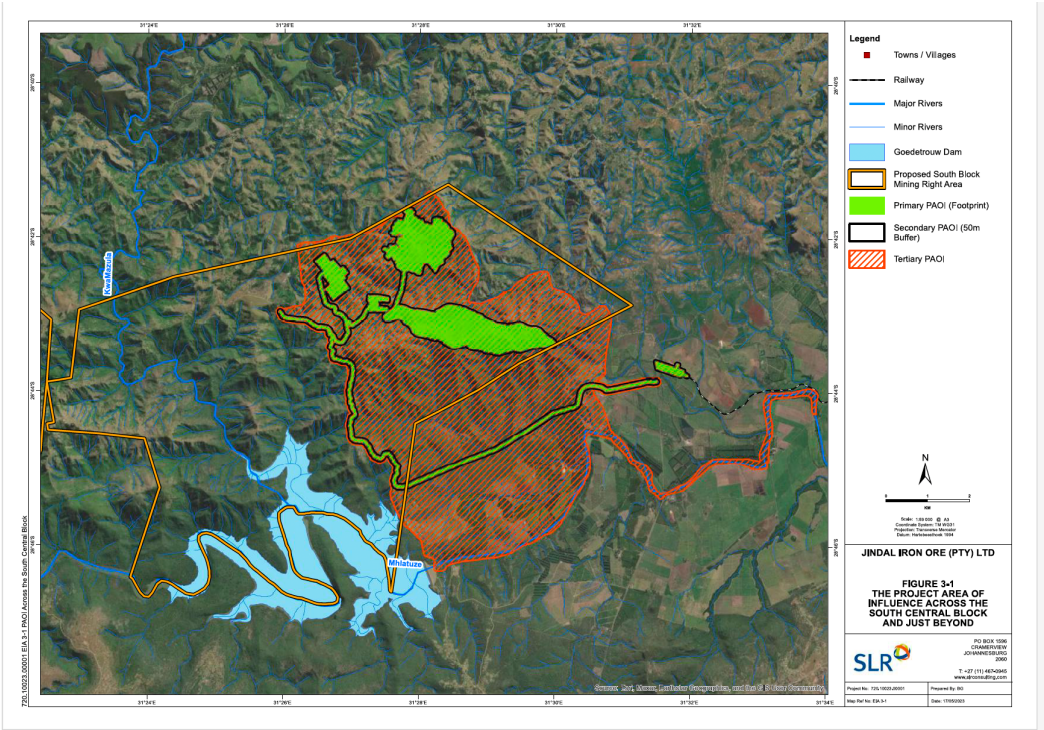
49. The significance of the impact is rated as VERY HIGH for the construction which means that the proposed mining development would have measurable negative impacts on biodiversity conservation and on the ability to meet provincial and national conservation targets. The EIAR states that "Very High significance impacts are potentially fatally flawed impacts according to national guidelines, especially as the feasibility and acceptability of offsets as a form of compensation has not been formally investigated at this stage. Such impact can only be compensated for through the finalisation of a biodiversity offset, assuming that an offset is viable."[34]

50. The Project Area of Influence (PAOI) was defined in terms of primary (direct footprint), and secondary and tertiary (indirect) influences (see map below) as mining and related activities can often lead to irreversible damage or longer term, gradual and cumulative changes to terrestrial ecosystems.

51. As is evident from the map, only the PAOI, which is situated in the south east area of the South Block and is not more than 5km$^2$, has been assessed[35]. The rest of the Project Area comprising of more than 198km$^2$ has not been assessed at all. As is also evident from the map below, the tertiary footprint for the PAOI is much larger than the PAOI itself. It can therefore be said that if the terrestrial biodiversity impact assessment had not been split into this smaller phase 1, impact of the primary, secondary and tertiary footprint entire project would not only also be VERY HIGH but would be impact over 200km2 and the Project would be deemed to completely unfeasible.

52. This is one the serious flaws in project splitting of this nature and is dealt with more fully below.

[33] Page iv
[34] Appendix D, page 51
[35] An area of approximately 5km$^2$ (Pit size footprint area of approximately 4km$^2$, waste rock dump footprint area of approximately 204 Ha and associated buildings)




53. In any event, even without the cumulative assessment of the full MRA, the findings in this section show that the impacts on the flora, fauna and environment are extreme and a fatal flaw. The EAIR confirms that the location of the South-East pit encroaches upon Vegetation Community 1 (Open Savannah) and Vegetation Community 2 (Thicket/Closed Woodland), which are both assigned a very high sensitivity rating and form part of the recommended no-go area. It further confirms that "[e]*ncroachment on areas rated as being of very high sensitivity according to the latest best practice guidelines should be avoided as far as possible and development is generally not recommended in these areas. In addition to the terrestrial biodiversity concerns, there are potential direct and indirect impacts to watercourses in the study area*."[36] [Our emphasis]

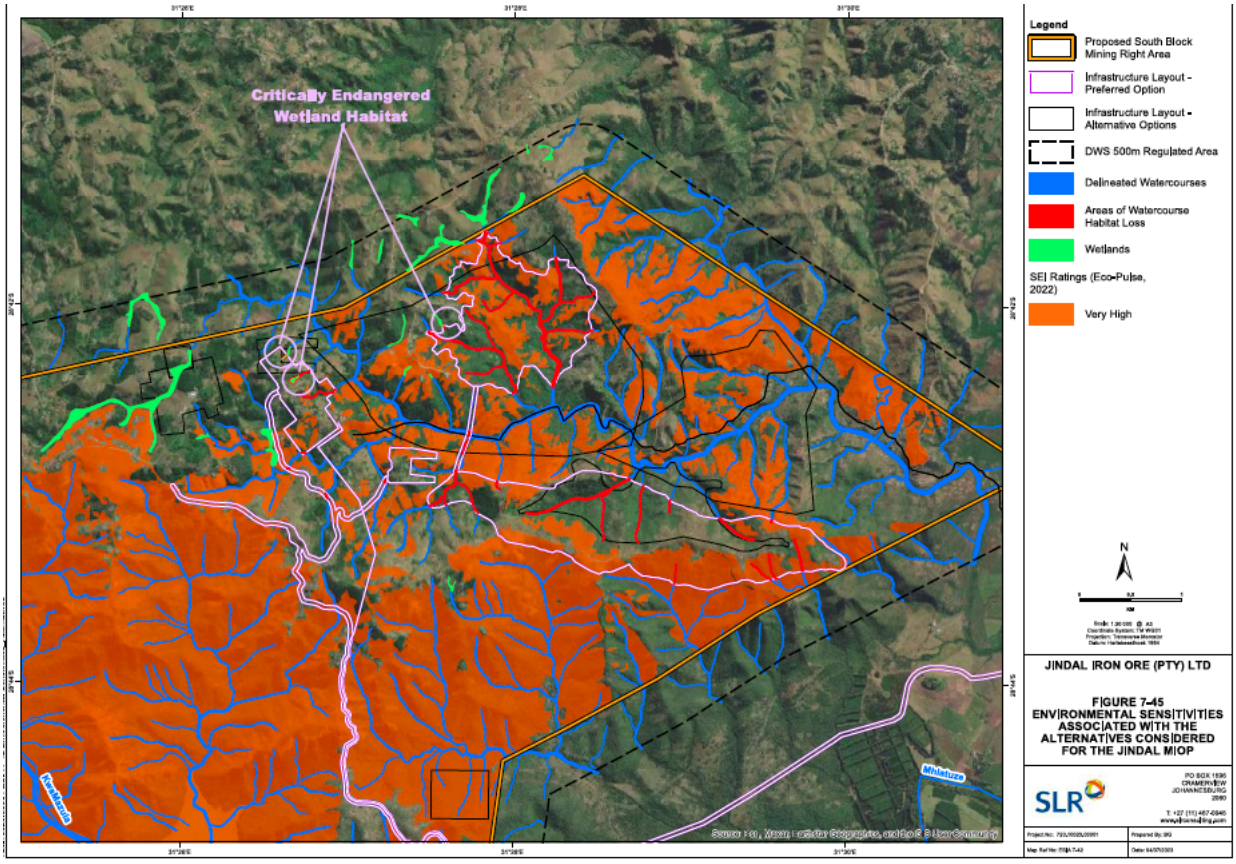
54. The footprint area for the WRD is partially classified as a 'no-go' area due to the very high sensitivity (EIS) terrestrial biodiversity and potential offsets would therefore need to be considered. In terms of watercourse habitat loss this is also a likely impact from the establishment and operation of the WRD.[37] [Our emphasis]

55. The processing plant and the primary crusher footprint coincide with open savannah/grassland areas (Vegetation Community 1) rated as being of Very High SEI which is part of the recommended terrestrial no-go Area. Without re-siting, the above-

[36] EAIR, page 244
[37] EAIR, page 244

mentioned vegetation community stands to be directly or indirectly impacted by the proposed infrastructure. The proposed processing plant location also coincides with the headwater areas of two Mountain Headwater Streams, a single wetland, and a single Mountain Stream. Additionally, the proposed location of the incoming power yard coincides with a single wetland while the primary crusher advances into the preliminarily recommended watercourse buffer zone area for a Mountain Headwater Stream and a Mountain Stream. According the EIAR, there is limited scope for alternate sites due to the topography of the area which required that terraces be built for the processing plant and substation and suitable space for this size of infrastructure is limited. [Our emphasis]

56. The map below sets out the impact of the Project on watercourses and again, only the area of Phase 1 has been assessed, not the whole area.




57. In summary, the WRD, open pit, processing plant and access roads impact on large areas of Very High SEI, mountain and mountain headwater streams within the pit area, various watercourse habitat loss and wetlands. The impacts to terrestrial biodiversity in particular are considered of very high significance prior to any mitigation being

implemented and once all reasonable mitigation measures have been considered, significant residual impacts to ecosystems would need to be offset in line with Provincial and National policy.

58. The EIAR focussed on some of the infrastructure planned as part of phase 1 of the Project. All impacts were rated to have a Very High, High or Medium level of significance under a poor mitigation scenario given the large scale of the proposed project and the far-ranging impacts it will have on biodiversity in the surrounding region. Under a good mitigation scenario, impact significance ranges between medium and high during the construction phase, with impact significance reduced to medium for the operational phase and reduced to low ratings for the decommissioning phase, provided all mitigation measures recommended in this report are adhered to. Recommended Terrestrial No-Go areas and siting infrastructure recommendations were provided to try and avoid and minimise potential impacts in accordance with the first two steps of the mitigation hierarchy.

59. Despite these recommendations, impacts have been assessed based on the assumption that the proposed mining layout would be implemented without further refinements. Under this scenario, options to mitigate the loss of Very High SEI are limited and even with onsite rehabilitation will result in impacts of high significance to terrestrial biodiversity. Based on best-practice guidelines, a biodiversity offset would therefore be required. As such, the preparation of a biodiversity offset report is recommended to clarify residual impacts, set offset targets and to define reasonable offset actions necessary to compensate for these impacts should the application be approved.

60. The National Biodiversity Offset Guideline ("Guideline")[38] states that:

"The biodiversity offset guideline **must** however be completed in the EIA phase because the Biodiversity Offset Report must be submitted together with the BA Report or EIA Report to the CA before the legislated timeframes for the EIA phase lapse. The absence of the Biodiversity Offset Report may well result in an EA being refused by the CA, or the decision to grant an EA being set aside on appeal or judicial review."[39]

[38] Published by the Minister of Forestry, Fisheries and the Environment on 23 June 2023 (Source: https://www.dffe.gov.za/sites/default/files/gazetted_notices/nema_nationalbiodiversityoffsetguideline_g48841gon3569.pdf)
[39] Paragraph 5.1.2, page 23.

61. On the basis of these compelling reasons, we submit that the EAP should recommend that the EA not be approved.

**d) Project splitting**

62. Segmenting the Project into different environmental impact assessment processes is highly problematic and results in piecemeal environmental authorisations for activities when, in fact, the final outcome may never be reached. This is called "project-splitting".

63. This practice has recently received judicial scrutiny in South Africa in the *Highlands* case[40]. The court found that Regulation 11(3) of the EIA Regulations must be interpreted to mean that a single assessment must be submitted for consideration where there is an intention to undertake more than one activity as part of the same development. Failure to do so would prevent the competent authority from being able to undertake a consolidated assessment of the impacts of all the activities in one application.

64. Notably, Regulation 11(3) specifically refers to the need to assess cumulative impacts and this is also a reporting requirement for the EIAR as set out in Appendix 3 of the EIA Regulations.

65. "Cumulative impact" is defined as "the past, current and reasonably foreseeable future impact of an activity, considered together with the impact of activities associated with that activity, that in itself may not be significant, but may become significant when added to the existing and reasonably foreseeable impacts eventuating from similar or diverse activities."[66]

66. The Project has split areas of the Project into smaller sections such as the Project Area of Influence mentioned in the Terrestrial Biodiversity study mentioned above. By doing this, the Project impacts are diluted and not a true indication of the impacts.

67. Over and above the splitting of areas of the Project within the MRA, the Application has also excluded integral elements of the necessary operation of the mine from this EIA process that fall outside the MRA. These, according to the EAP, are integral to the operation of the mine but will be dealt with in separate EIA processes.

68. One such element is the Tailings Storage Facility ("TSF"). Tailings fall under the definition of "residue stockpile" in the MPRDA and the National Environmental

[40] *Badenhorst and Others v Minister of Forestry, Fisheries and the Environment and Others* (2229/2020) ZAECMKHC (18 July 2023).

Management: Waste Act. "*A mine" includes "the mining area and all buildings, structures, machinery, residue stockpiles, access roads or objects situated on such area and which are used or intended to be used in connection with such searching, winning or extraction or processing of such mineral resource*."[41]

69. The TSF forms part of the mine. The EAIR states that "[t]*he processing plant would produce iron ore concentrate and a tailings slurry…[and] the tailings will be disposed of to a TSF."[42]" The overland concentrate, tailings, tailings return water and raw water pipelines would be routed along this main access road for maintenance purposes*."[43] Approximately 24 mtpa of tailings would be produced when the mine is at full production and is required to be disposed of on a TSF. The tailings slurry would be transferred to the TSF via a pipeline.[44]

70. It also states that "[t]*here are a few processes/infrastructure that are integral to a mining operation and would have to be approved through an EA process before any development can take place*." These include the Tailings Storage facility …"[a]*s discussed in Section 3.1.2.4 the processing plant would produce iron ore concentrate and a tailings slurry*." Quite clearly, the mine cannot operate without the TSF or the pipeline. As tailings is a mine waste, environmental authorisation must be obtained from DMR, as is the case with the current environmental authorisation.

71. The TSF Site Selection Study for 300 to 600 Ha of land was undertaken in 2014/2015. According to the EIAR, has the potential to sterilise high potential agricultural land in the Nkwalini Valley and, should a failure of the TSF occur, the sterilisation of agricultural land and the potential for loss of life create significant cumulative impacts. There may also be potential social impacts due to the additional employees moving into the area in search of employment however the TSF is not likely to generate significant jobs.[45]

72. The EIAR states that a separate EIA will be undertaken for the TSF. It is submitted that cannot be separated from the Project as the cumulative impact assessment is integral. This EIA process must include the assessment the TSF for it to be complete.

73. Transport of concentrate to Richard's Bay harbour has also been split from the Project. According to the EIAR, the "final mode of transportation of the concentrate from the processing plant to the Richards Bay Port for export would be by rail 80 km to Richards

[41] Section 1 of the MPRDA
[42] EIAR, page 41
[43] EIAR, page 54
[44] EIAR, page 57
[45] EIAR, page 89

Bay. Port upgrades would also be required. A separate EIA process is also required for this".[46] Again, this is integral to the Project and should be incorporated into the same EIA for the mine.

74. These issues were raised several times in the public participation meeting as a major concern. In the minutes of the Water Users Focus Group Meeting held on 22 August 2023, the following queries and responses were noted:[47]

a. *Question: Regarding geography – please give an indication of the location of the tailings dam? Response: Initial studies have been undertaken for the TSF siting. The full process will continue in the near future.*

b. *Question: Reference to the mine map – will Jindal apply for more licences? Response: Jindal is only applying for a small area now, but if there are any changes to the mining area after approval, then another application must be submitted for authorisation. Each time there is a significant change to the proposed mine footprint, plan etc a new EIA process is required to be undertaken and all relevant authorisations be applied for and approved.*

c. *Question: Why not apply for all licences at once? Response: In an ideal world, this is how the application process would be undertaken. However, due to large costs, regulated timelines etc and that there is no guarantee that the current application would be approved, Jindal is undertaking the process in steps.*

d. *Question: Acknowledges that this meeting is about the EIA of the mine site. But as a farming community, there are several other pending EIAs, which are the tailings, transport from mine site to railway, and then to upgrade the railway line. They are concerned that these things have a compounded affect in terms of risk. They would like to see how all these EIAs' impacts, together, could impact them. They came for answers and they are struggling to feel as if they actually have gotten the answers. They need to know the compounded risks of all the other associated project elements combined. The other EIAs need to be done sooner, and they want answers very soon so they can make related investment and future farming decisions. Answer: Ed Perry apologises that the team were not able to provide all the information and answers that was expected but that all*

[46] EIAR, page 58
[47] Page 4

*answers, as far as possible, will be provided to questions and comments, and if there are further queries, these can be submitted to genie.dewaal@zutari.com.*[48]

75. It is our submission that for this EIAR to be full and fair and compliant with a mandatory and material procedure, it must incorporate all these interconnected projects because the projects are so closely related that they:

    a. automatically trigger other actions that, on the EAP's own admission, will require environmental impact assessments; and

    b. cannot or will not proceed unless these EAs are granted; and

    c. are interdependent parts of a larger action and depend on the larger action for their justification.[49]

76. The EIAR must include the entire area and *all the projects* to ensure that the significance of the environmental impacts of the entire project from mining, processing, waste, transport and export are assessed as a whole. The full impact cannot be assessed properly when it is broken into component parts, and the impact of those parts is analysed separately.

**e) Inadequate Public Participation and Failure to Provide Material Information**

77. The EIA Regulations prescribe the requirements for public participation in an EIA process, specifically notification, providing opportunities to comment and providing all material information to I&APs and the competent authority. These requirements must be fulfilled within the prescript of NEMA and in accordance with the public participation and other guidelines published in terms of S24J of NEMA and the MPRDA. Also, the DMRE in accepting the application for environmental authorisation emphasised and qualified the consultation requirements, including consent of affected communities, further in its letter of 24 May 2022.

78. While the EAP pays lip service in the EIAR to these requirements, the applicant and EAP have not discharged their public participation obligations for the reasons set out below. These inadequacies render the process procedurally unfair.

*Notification*

[48] Page 5
[49] 40 C.F.R. § 1501.9(e).

79. Jindal and its appointed consultants have not satisfied their obligations to notify all landowners and lawful occupiers within and adjacent to the proposed mining right area, specifically:

a. The majority of affected lawful occupiers within and adjacent to the mining right application area (North Block and South Block) have NOT been identified and notified in writing about the project during Scoping or the EIR process.

b. As stated on page 7 of Appendix C2 of the EIAR, the applicant and EAP only endeavoured to inform a "reasonable sample".

c. The 350 plus families that reside within the 500m buffer area of the Phase 1 southeast mining operations (as determined by the EAP) have NOT been notified that they will need to be resettled. Further, the approach to the public participation process for these families has been one of prejudice and stereotyping.

d. The host communities have not been identified and notified of potential resettlement on the land they occupy.

e. There has been little or no effort made to identify other rights holders within and adjacent to the proposed mining rights area (North and South blocks), including but not limited to the Phase 1 area.

f. The landowners and lawful occupiers of the land required for the proposed TSF have not been notified that they will need to be resettled.

g. The landowners and lawful occupiers within the areas required for service infrastructure have not been notified in writing that their rights will be affected.

h. The landowners and lawful occupiers who will be affected by the proposed prospecting in the mining rights areas have not been notified.

i. The State Departments of Health and Education have not been consulted, nor have all the schools and clinics within and adjacent to the proposed mining rights areas.

80. None of the reasons offered by Jindal, SLR (the EAP), the resettlement, cultural heritage and other specialists, and Zutari, the public participation consultants, justify or remedy the unfair procedure to date. Jindal has had 10 years since it initiated the first EIA process in 2013, and 2.5 years since the current EIA process was initiated in March 2021 to identify all persons whose rights will be affected by the proposed mining rights area and mining operations, yet it has failed to do so.

81. For a project that boasts to "*potentially be one the largest direct foreign investment projects in South Africa in recent years with the estimated direct and indirect capital cost in the order*

*of R15 billion*" (page 72 of the EIAR), it has invested shockingly little in consultation with the people whose rights will be adversely and irreversibly affected, now and intergenerationally.

82. In addition to responding to the comments above, the following information should be provided in the EIR:

    a. What is considered to be a "reasonable sample" of residents?

    b. What were the reasons that the EAP considers it sufficient to identify and notify only a sample of affected parties?

    c. During Scoping, how many households in each village within and adjacent to the MIOP footprint were notified in writing, and what percentage is this to the total number of households per village, per North and per South Block and to the whole proposed mining rights area, including the areas to be affected by the TSF and service infrastructure?

    d. During the EIR process, how many additional households were notified within the categories listed above?

    e. What is the motivation for limiting the buffer for resettlement to 500 metres? This distance relates only to blasting in terms of the Explosive Regulations. It is necessary to ascertain appropriate distances with regard to other impacts too such as air pollution, noise, dust, interruption of livelihoods and access to services and natural resources. It was mentioned in the online public meeting that "the EIA details the impacts on any sensitive receptors beyond this distance" but there is no indication of extending the buffer for these receptors in the EIAR. The EIAR should be amended to provide a full rationale for the proposed buffer and notify lawful occupiers accordingly.

    f. At the top of page 89 of the EIAR the following is stated: "*It was not possible to source contact information for all landowners and occupiers; however, **every effort was made** to contact all stakeholders in the process. The task of notifying landowners and occupiers has been on-going*" [emphasis added]. Please explain the exact methods that support the statement that "*every effort was made*" to identify and notify all landowners and occupiers.

    g. All the gaps regarding notification in the public participation process should be clearly articulated and recorded in Section 15 of the EIR.

83. The failure to adequately identify and notify all the affected lawful occupiers also renders the opportunities provided to comment inadequate – how can affected persons register and participate in a process they do not know about because they have not been notified?

*Opportunities to comment*

84. Our law requires that the opportunity given to interested and affected parties to comment on or raise issues relevant to an application must be reasonable, adequate, appropriate, equitable, and effective. This is especially so where a project impacts on vulnerable and disadvantaged persons, as in the case of the proposed Jindal MIOP (see NEMA Sections 1; 2(4)(f); 23(2)(d); 24(4)(a)(v)).

85. It is clear from the description of the public participation process in the EIAR and the responses provided by Jindal and its consultants at the I&AP meetings held on 16 and 22 August and in responses to I&AP correspondence that requests for in-person meetings with affected communities including All Rise's motivated requests on 31 July and 10 August 2023, have been refused.

86. In any event, there was only one date for a public meeting scheduled for the EIAR on 26 July in the town of Melmoth, which is significantly far from the proposed mining area and affected villages. This meeting was also prematurely closed, reportedly at the instance of SAPS and the mayor, due to "general protest action in the area and to ensure everyone's safety" as per the response given to SDCEA by Zutari on 11 September 2023.

87. Given the volume of the EIAR (over 3000 pages) and its complex technical content, All Rise specifically asked for a two-day workshop with specialists. Instead, a 2.5-hour on-line meeting with only 3 of the specialist teams present was held to present findings and answer questions. It was clear that there was insufficient time or specialists available to engage meaningfully with the findings of the EIAR. This meeting was also held only in English.

88. In the end, there have only been two meetings held for the EIAR – an online meeting held 16 August at 18h00 despite this time coinciding with loadshedding and an in-person focus group meeting held in August with water users in Nkwaleni. Both meetings were only held in English.

89. Aside from 350 homesteads (approximately 3000 people) that will need to be relocated, the number of people situated on the land over which the Project lies is in the region of 20 000.

90. The MRA area comprises the villages, their associated infrastructure, and agricultural activities. The agricultural activities include stock farming, large and small stock, on the vegetated grazing areas, and cash crop agriculture on ploughing fields. With the exception of Vergelegen farm and two small pockets of church land on Wilderness farm, all the farms are owned by the communities or parts of communities residing in the villages and closer

settlement on the subject land. Nominal ownership vests in the DALRRD, represented by the censured Ingonyama Trust.

91. The EIAR states that "Land ownership varies across the MR application area with undivided properties falling under the jurisdiction of public bodies and the Ingonyama Trust Board, with other farms being owned by individuals and companies. All of the North Block and most of the eastern portion of the South Block falls under Traditional Authorities, including the Zulu-Entembeni, Obuka and Yanguye."[50] This is incorrect. It is our submission that the adult residents in the villages and closer settlements on the subject land which is also communal land, are the property rights holders whose consent must be obtained before the Mining Right Application can be proceeded with and the EA granted.

92. The MRA acceptance letter dated 24 May 2022, clearly informs the EAP/Jindal of its legal obligations insofar as public participation is concerned:

*"3.2. to consult in the prescribed manner with the landowner, lawful occupier and any interested and affected party including the Land Restitution Commission and include the result of such consultation in the relevant environmental reports to be submitted and uploaded on the SAMRAD system on or before 06th July 2022.*

*Please note that the consultation process referred to in paragraph 2.2 above does not imply issuing letters and requesting the affected parties to indicate whether they support your proposed project or not.*

*It includes among others an extensive process of giving and discussing the specific details of the proposed project, giving the I & A Parties an opportunity to table their comments, objection and support, it also involves your written responses and specific commitments made in dealing with the issues raised during the consultation.*

*Note that it is important to ensure that your consultation process is comprehensive so that your Environmental Impact Assessment and Environmental Management Plan can be informed by all potential impacts that your project may have. Should the land be owned by the communities or a Trust on behalf of the community, a proper and thorough consultation process must be engaged upon and a legitimate Tribal Resolution or consent must be obtained from the Traditional Authority / Council or Trust and be submitted with the results of consultation.*

93. In the one public meeting held online on 16 August 2023, it was queried why Jindal did not seek the prior informed consent of the villages and the households on the land. It was asked why Jindal was making purchase offers to commercial farmers and not even talking to local small-scale farmers on communal land. The response from Patrick Donlon of Jindal was that "…due to difficulties in the area with site access and the ability to consult with individuals, not as much groundwork was undertaken as Jindal would have liked… "[51]

[50] Scoping Report, page 470
[51] Meeting Record, page 3

94. Further, the S24J Public Participation Guidelines require that where:

a. there is a high degree of conflict among I&APs, there might need to be more consultation to ensure that there is consensus reached.

b. previous public participation processes in the area resulted in conflict, additional consultation might be needed to ensure that issues of conflict are addressed effectively.

c. the I&APs have special needs (e.g. a lack of skills to read or write, disability, etc.), and consultation should include mechanisms that will ensure full participation by people with special needs.

95. It is clear from the EIAR and responses in the two I&AP meetings in August and to I&AP correspondence that there is conflict in the area as a result of the proposed project and EIA process. However, despite All Rise asking the consultants in writing on 31 July and 10 August 2023 to explain what additional measures have been undertaken in the EIA process to address the conflict, no response has been forthcoming and no such measures are explained in the EIAR. In fact, it appears the contrary has happened – there has been less consultation in response to the conflict.

96. Specifically, All Rise requested the EAP to take threats of violence and incitement on the Jindal public participation WhatsApp group seriously. We informed the EAP that the WhatsApp group has become a forum for inciting violence and sowing division. When such messages are communicated to the group, the admin for the group does not delete the messages nor attempt to calm the violent statements that are being shared. Some of these were defamatory messages directed at ALL RISE by Mr Simphiwe Ngcobo and death threats against Mr Mavuso ("It's okay to kill Mavuso, but he won't go down alone") by a person named Mashobane. We requested details regarding what measures the EAP planned to implement to address the aggression and potential for violence as required by the S24J Public Participation Guidelines. The EAP's response was that it did not run the group. We sent further correspondence in which we advised the EAP that its "resettlement expert", Tandi Kolbe, was the admin for the group, and as she is a specialist contracted as part of the EIA process, the EAP was responsible for the group. The EAP's response was, "neither SLR or Zutari are the administrator of the Whatsapp group, nor is the administrator employed or contracted by SLR or Zutari". This lack of accountability or attempt to resolve the concerns is wholly unacceptable.

97. The EAP has a duty to get to the bottom of the concerns of those who are protesting the Project, and not simply dismiss these concerns in one blanket statement of "it is our hope that the few people who are instigating intimidating protest…will adopt a more reasonable

approach to voicing their objection to the project". This is a false narrative and not objective in any way. The EAP has a duty to find out why people are protesting and take action to prevent the conflict. The EAP has failed in this duty.

98. Thus, the public participation process conducted as part of the EIA process for Jindal's proposed MIOP has failed to meet the opportunity qualifiers for the following reasons:

    a. A significant number of affected people within and adjacent to the proposed mining rights area were not aware of the opportunities to comment.

    b. A significant number of affected people within and adjacent to the proposed mining rights area did not have access to the EIAR because they were not notified of its availability.

    c. A significant number of affected people did not have the technological means to obtain and read a copy of the EIAR, which was only available on SLR's website.

    d. A significant number of affected people were not provided hard copies of the summary document or the EIAR.

    e. Affected community residents were not provided with the opportunity to attend a meeting to receive information on the EIAR orally.

    f. The online meeting was not accessible to the majority of affected community members due to technological barriers. Loadshedding also hampered the attendance of those I&APs who had the means to participate online. There has been one meeting with the NWUA, at very short notice. Both meetings held were in English only.

    g. There have been no community meetings.

    h. Requests for more in-person public meetings and a two-day workshop with specialists, were either ignored or denied without proper explanation given. The EAP needs to explain why were the requests for additional in-person meetings not considered to be reasonable requests.

    i. The public participation process has not addressed the conflict arising out of the project and EIA process.

99. Instead of reporting on these gaps objectively in the public participation process, Section 15 of the EIR, SLR, Zutari and Surveya have disingenuously attempted to defend the process as being "reasonable", which is far from the case.

*Access to all material information in the EIA process*

100. Regulations 13(1)(f) and 40(2) of the EIA Regulations require that the public participation process must provide access to all information that reasonably has or may have the potential to influence any decision with regard to an application unless access to that information is protected by law to all potential, or, where relevant, registered interested and affected parties. It should be noted that in terms of protecting environmental rights, the courts have found that there is very little that is protected information in the EIA process. Specifically, in the *Baleni* judgment the court made it clear that the mining rights application documents should be made available to I&APs on request.

101. Further, the S24J Public Participation Guidelines require that where:

a. the project has the potential to create unrealistic expectations (e.g. that a new factory would create a large number of jobs), thorough consultation that addresses the perceptions of unrealistic expectations needs to be carried out.

b. there is a high level of unemployment in the area, the public participation process should ensure that there are no unrealistic expectations created due to the project. The consultation should ensure that any unrealistic expectations are adequately addressed before the project starts.

102. The public participation process is flawed in so far as it has not provided all I&APs with access to all material information, including:

a. The 350-plus families have not been informed that they would need to be resettled. (This information on resettlement has been deliberately withheld from affected parties).

b. The host families have not been provided with information.

c. No technical information on prospecting activities or an assessment of the impacts of such prospecting activities have been disclosed to I&APs.

d. It is evident from Section 15 of the EIAR that there are numerous and significant gaps in information that is available to I&APs.

e. Material information on the TSF and mining-related service infrastructure, including cumulative impacts have been withheld from I&APs as part of this EIA process.

f. The fact that the MIOP will result in a net loss of jobs and livelihoods in the area.

g. The fact that most local community members will not qualify for jobs created by the mine.

h. Certain information has been withheld despite having been requested by All Rise, on the basis that the EAP does not consider them essential. These include:

i. the documents constituting the mining rights application, namely the application form itself, and the Mining Works Programme;

ii. DMRE letter of acceptance of Scoping Report, including conditions of acceptance (if any)';

iii. Any other correspondence from DMRE regarding the requirements for the EIA process;

iv. Status of the two prospecting rights PR 10644 and PR 10652 – as they appear to have lapsed;

v. Status of the rehabilitation of the prospecting activities;

vi. Environmental audit/performance assessment reports in relation to the prospecting rights; and

vii. KML map data for the proposed mining right boundaries, mining pit and mining-related infrastructure (including the tailings dam).

viii. Bankable feasibility study.

103. In addition to the unlawfulness and procedural unfairness of not providing all material information to I&APs, the absence of this information has also resulted in misrepresentation and lack of objectivity.

104. False statements have also been made to I&APs. A clear example is the response provided to question 43 raised at the online meeting on 16 August regarding job loss as a result of the MIOP that "No commercial agricultural land will be directly lost due to the development of the mine". As stated on page 57 of the EIAR, the TSF is an integral part of Jindal's proposed mining operation and it has also been publicly disclosed that the TSF will require the acquisition of a large area (8km$^2$) of commercial agricultural land.

105. Further, the EAP has made no attempt to record how the gaps in material information as reported in Section 15 of the EIAR and the information that has not been provided to I&APs in the public participation process, affect the rights to I&APs to an opportunity to comment that is reasonable, adequate, appropriate, equitable, and effective. The EIAR needs to be amended so that it reports openly, comprehensively and objectively on these gaps. Not to do so would be unlawful on the part of the applicant and the EAP.

*Consequences of flawed public participation process*

106. The lack of procedural fairness in the public participation process has not only violated the rights of I&APs to participate in decisions that affect them but also has led to a failure on the EAP's and specialists' part to fully identify potential impacts.

107. Moreover, when considering the application, the competent authority will be prevented from taking into account the interests, needs and values of all I&APs, including traditional and ordinary knowledge as is required in terms of Section 2(4)(g) of NEMA.

**f) Uncertainties, assumptions and gaps in knowledge**

108. The Project and EIAR are filled with uncertainties and gaps in knowledge. In fact, it is reasonable to state that there are more gaps than there are ascertained impacts. In response to queries about the extensive gaps, the EAP states that these have all been declared in the EIAR and justifies many of them by stating that "due to access issues in the local area not all studies were able to be completed".

109. When the uncertainties, assumptions and gaps in knowledge are so substantive that they even bring the viability of the Project into question, the EAP has no option but to recommend the application NOT be granted.

110. Instead, after setting out all the gaps, the EAP inexplicably concludes that '[t]h*e findings of the impact assessment undertaken show that there is the potential for significant impact throughout all phases of the project, however, with the effective implementation of the EMPr, careful planning and ongoing engagement with all stakeholders and potentially affected parties there is no biophysical, social or economic reason why the project should not proceed*."[52]

111. Examples of gaps identified in the EAIR[53], as well as ones we have identified, are set out below.

[52] EIAR, p301
[53] EIAR, pages 285 - 299

*Gaps acknowledged in the EIAR:*

*Groundwater*

112. Water level data in the pit area is outdated as water level measurements were last measured in 2014. Access issues from the local community were experienced in attempts to obtain more current data.

113. It was also observed that core holes had, in some case, deeper than expected water levels and re-examination of these water levels is required.

114. There is currently no hydrocensus information on adjacent farms to the mining areas which may become impacted by mine dewatering.

115. Only once off water levels are available in the study area. Monthly water level monitoring and quarterly quality monitoring should proceed to establish a sound baseline for potential future mining.

116. No water quality monitoring is currently available for the pit area (Pit and WRD). This information is necessary for baseline establishment.

117. Large scale mining operations have the potential to contaminate groundwater resources through a number of activities across the various phases of mining. Seepage from the WRD, temporary ore stockpiles, the TSF and via potentially hazardous leaks or spills. The potential receptors are the groundwater resource; and neighbouring groundwater users.

118. Access to the Project area to undertake the proposed geohydrological drilling programme was not possible due to restrictions to site access and as such no current water quality data was able to be obtained for the proposed Jindal MIOP.

119. Existing boreholes in the pit area only occur within the pit footprint. Therefore, additional boreholes must be sited and drilled on the periphery of the pit.

120. Aquifer characterisation in the pit area is based on two pumping tests and two slug tests. Due to very limited data, there is significant uncertainty regarding hydraulic conductivity of the formations present within the pit.

121. There are currently no water level or aquifer parameters for the granites north of the pit where the WRD facility is proposed.

122. The boreholes drilled at the TSF have not been tested to confirm the hydraulic conductivity values assumed within the modelling.

123. The following limitations were identified in the conceptualisation and setup of the numerical model:

a. Although there was a recommendation made for new boreholes to be drilled in the mining area; this was not completed due to accessibility issues.

b. The recharge was estimated and calibrated within the model.

c. Only four aquifer tests have been completed in the study area. All four boreholes are located within the pit area.

d. The current aquifer parameter data for the pit is very limited and the modelling presented is suitable for EIA level impact prediction and high-level estimation of ingress to the pit. The model is not suitable for developing a detailed dewatering strategy for the pit i.e., quantifying pore pressure difference in the pit wall and recommending suitable locations for dewatering boreholes.

e. Records of water strikes in the pit boreholes indicated that there were very few water strikes obtained between surface and 180 mbgl. It has been assumed that the upper aquifer zones are less conductive than the deeper zones within the pit. The available aquifer testing does not, however, differentiate the two zones and hence the conductivity values for the upper and lower zone are required to be assumed.

f. Three water levels were measured at the TSF boreholes that were recently drilled.

g. Historical water levels[54] were used to characterise the pit area. Access issues prevented an update of water levels in the pit area. The water levels have been plotted against elevation to determine if any deviations occur from the expected trend. It is likely that these water levels are not in line with the regional water levels for the aquifer and were still recovering at the time of sampling. This should be validated by remeasurement of the water levels in the boreholes.

h. There is no water level information in the proximity of the WRD and consequently the water level conditions are inferred from water levels in the pit area.

[54] Golder (2015)

*Terrestrial biodiversity*

124. The need for faunal surveys by appropriately qualified specialists for avifauna, mammal, frog, reptile, and invertebrate species to be conducted to refine an understanding of potential impacts associated with the Animal Species Theme is confirmed in the EIAR. The reason for this is that several faunal Species of Conservation Concern ("SCC") have been flagged as potentially occurring within the study area.

125. Sampling limitations and assumptions:

    a. The study focused on 'terrestrial' or dryland vegetation occurring within the study area.

    b. The location of floral SCC was recorded using a Garmin MonterraTM Global Positioning System (GPS). GPS accuracy was limited to 3 – 5m.

    c. The field assessment was undertaken in mid-autumn (April 2021) and outside of the recommended sampling season (October to December) for the summer rainfall region as prescribed in both the "Draft Species Environmental Assessment Guideline. Guidelines for the implementation of the Terrestrial Flora (3c) & Terrestrial Fauna (3d) Species Protocols" compiled by SANBI (2020) as well as the "Guidelines for Biodiversity Impact Assessments in KZN" compiled by EKZNW (2013a). As such, further fieldwork is required to obtain a more robust understanding of the occurrence and distribution of floral SCC on the site.

    d. Large portions of the study area comprise steep topography often covered in dense thicket vegetation, some of which is practically impenetrable and as a result accessibility across large areas was an issue, this along with the fact that very few areas were ground-truthed relative to the large size of the study area (~20 000 ha in total) increase the likelihood that red listed species or other SCC on site were under-sampled and under-represented during the site visit.

    e. In light of the two points above additional fieldwork would be required to sample the entire northern block and further ascertain the condition of vegetation located within the southern blocks and the presence of additional red-listed species during appropriately timed seasonal sampling.

    f. Ten broad vegetation communities were described on-site, four of which are considered to be in fair to natural condition and have a Very High SEI rating. The remaining six vegetation communities on site range in SEI from Medium to Very Low. In addition to being in good to fair ecological condition the four largely intact

vegetation communities are highly likely to support a number of floral SCC that are either redlisted, rare, or endemic, and this would need to be verified through

g. Limited GPS data and the SANLC 2020 layer were used to inform the mapping of vegetation communities and assign their condition classes. Therefore, it should be noted that a high degree of uncertainty is associated with this coarse-scale mapping, which will need to be revised following further sampling.

h. Information on the threat status of plants species was informed largely by the SANBI Threatened Species Online database, which was assumed to be up to date and accurate at the time of compiling this report. Any changes made after the compilation of the report are therefore not covered.

i. The assessment of the POC of fauna was informed by the presence and condition of ideal habitat for each faunal species. The habitat condition / integrity was used as a surrogate indicator of the likelihood of a particular species being present.

j. Additional information used to inform the assessment was limited to data and Geographic Information System (GIS) coverage's available for the province and district municipality at the time of the assessment.

k. In terms of faunal surveys and assessments, no formal faunal sampling or surveys were undertaken, and this report does not serve as a substitute for detailed and taxon-specific specialist reports required for faunal species flagged as being of very high – medium sensitivity and where these are likely to occur at the site.

l. At the time of this impact significance assessment, finalised site plans were not available. As such, the impact assessment was based on the best available spatial layout information for the project which includes the unfinalised locations of the South East Pit, primary crusher, processing plant, incoming power yard, WRD, overland piping for bulkwater (raw) supply and raw water pump to the processing plant, conceptual plant access road, and railway line.

m. Also not taken into consideration in this report are incidental issues such as those related to all new roads, powerlines, pipelines and the like. The omission of these items is not an oversight but, because the development planning process was still in its early stages, limited details of such infrastructure were available at the time of this study.

n. At the time of this impact assessment, no faunal baseline assessment had been undertaken for the study area, only a very rapid desktop based potential occurrence assessment. In addition, the vegetation assessment undertaken, was conducted at the end of the appropriate seasonal window and therefore some threatened plant species are likely to have been overlooked and large portions of the study area are steep and inaccessible. As such the Site Ecological Importance assessment followed the guidance prescriptively and was based largely on available desktop information and mapping. Therefore, impact significance ratings should be considered preliminary and may need to be revised following completion of a faunal baseline assessment and an additional vegetation assessment.

o. At the time of this impact assessment the geo-hydrological report for the project was still in the process of being compiled and therefore significance ratings assigned to indirect impacts should be considered preliminary until the geo-hydrological report is reviewed in order to inform the assessment of acid mine drainage and decant risks.

p. Cumulative impacts were assessed at a very high level and coarse resolution and these significance ratings should be considered of low confidence.

*Wetland and aquatic ecology*

126. Given the size of the South Block study area, and time and access constraints, most watercourses in the study area could not be verified in the field and not all parts of the study area were visited. The assessment findings were extrapolated to the rest of the study area.

127. Given the early planning stage of this project key information required to accurately assess potential impacts and risks to freshwater ecosystems was not available and therefore the impact assessment was been completed at a broad project level and only considers the layout plan provided. As such, this impact assessment should be regarded as preliminary and indicative. In particular, more detailed information is required regarding the stormwater management plan for all proposed infrastructure, the plan and design for infrastructure required to treat domestic wastewater, contaminated runoff, and other polluted water that may be discharged into the environment and plans and processes to handle potential acid mine drainage (AMD) associated with the operation of the mine.

128. Key Omissions from the Impact Significance Assessment include:

a. The establishment and operation of the conveyor system that will transport crushed material to the ROM stockpile.

b. The TSF.

c. The transport of tailings from the plant to the TSF.

d. Construction and operation of the office complex that is to include all staff accommodation, a car park, canteen, meeting rooms, etc.

e. Establishment of powerlines to provide electricity to the operation. Establishment and operation of any required railway lines and / or slurry pipelines required to transport the processed iron ore concentrate away from the site.

*Cultural heritage*

129. A major gap in this study is that requisite surveys for this large-scale mining project are incomplete. The reason for the restricted access was "due to community tensions limiting the heritage practitioner's access to the proposed MLA, engagement with affected families with regard to graves reported to be over 60 years old, and concomitant concerns for the safety of survey personnel." [55]

130. Open pit mining and the waste rock dump will have an irreversible and therefore Very High impact on the immediate natural, cultural, and historical landscape that cannot be mitigated. These landscapes will be irreversibly altered, notwithstanding implementation of the requisite Mine Plan.[56]

131. Graves and Burial Grounds are accorded the highest level of significance in the National Heritage Resources Act.

132. The surveys that need to be done prior to EA are:

a. graves identification, auditing, and engagement with affected families.

b. mapping of ancillary infrastructure for possible archaeological site identification, mapping and description.

133. The EIAR cannot be approved without these impacts being assessed.

[55] Appendix D, page 19
[56] Appendix D, page 21

*Financial provision*

134. There is no allowance for radioactive material and equipment to be removed, transported and disposed of at a registered radioactive waste disposal facility.

135. No allowance has been made for concurrent rehabilitation activities.

136. No allowance was made for any post closure water treatment due to limited information available and no general surface reclamation for topsoil stockpiles was allowed due to limited information.

**Additional gaps:**

137. In addition to the listed gaps mentioned above, we submit the following reports also contain the fatal gaps which are not referred to as gaps in the EAIR:

*Socio-economic impact and jobs*

138. The Socio-Economic Impact Assessment Report (SEIAR) raises more questions than answers. The SEIAR relies on outdated data and makes vague assumptions that underpin its recommendations and conclusions. Aside from the many negative findings, the EAP remains neutral on whether the Project will have a positive or negative socio-economic impact on the lives of the people who stand to be affected by the Project.

139. It is extremely concerning that the SEIAR ignores the vast array of socio-economic protections afforded to South Africans by the Constitution. Save for section 24 (the right to a healthy environment); the SEIAR elects to pass over the fact that all people, including the inhabitants of the affected communities, are entitled to the preservation of their socio-economic rights to housing,[57] health care, food, water and social security,[58] and education.[59] These rights are underscored by the Constitution's guarantee that all people are entitled to have their human dignity protected,[60] and South Africa's commitments to the international community by virtue of its ratification of the International Covenant on Economic, Social and Cultural Rights (CESR).

[57] Section 26 of the Constitution.
[58] Section 27 of the Constitution.
[59] Section 29 of the Constitution.
[60] Section 10 of the Constitution.

140. Article 11(1) of the CESR ought to be cited due to its significance and to ensure that all the information contained in the SEIAR is scrutinized through its lens. Article 11(1) of the CESR, in its relevant part, states the following:

> "*The State Parties to the present Covenant recognize the right of everyone to an adequate standard of living for himself and his family, including adequate food, clothing and housing, and to the continuous improvement of living conditions. The State Parties will take appropriate steps to ensure the realization of this right […].*"

141. Given the international and constitutional protections afforded to all members of the affected communities, we have highlighted:

    a. The contentious issues that arise upon reading the Application as far as they relate to the socio-economic impact of the Project; and

    b. The valid reasons for refusal.

Socio-Economic Impact

*The flawed household surveys*

142. The SEIAR relies heavily on household surveys conducted in the affected communities to draw conclusions on the issues perceived to be worrying the affected communities. While the household surveys indicate that the community is troubled by several potential ramifications flowing from the construction and operation of the mine, the surveys do not necessarily represent the actual views of the communities and the populations that exist within them.

143. The household surveys were restricted to people over the age of 18 who had "authority to speak on behalf of the household".[61] Given the patriarchal lens through which most households in South Africa operate, this could mean that the views of certain groups of people, such as women, the elderly, and people with disabilities, were not adequately represented in the outcomes drawn from the household surveys. An example of a concern that seems to have been lost in the detail is the fact that most of the local working age cohort in the affected communities are women.[62] Yet, there seem to be no points raised about focused employment of women or the targeted up-skilling of women to ensure that they, too, benefit from the so-called employment opportunities that the

[61] Appendix S, p 58.
[62] Appendix S, p 45.

mine intends to bring to the table. It may be argued that this is a generalized assumption, but there is no way to test this theory as the SEIAR provides no real data in relation to the people who participated in the household surveys.

144. The findings of the household surveys highlight several concerns for the affected communities, including the potential negative impacts that the construction and operation of the Project will have on: (i) complications arising due to air and water pollution; (ii) the health of livestock; (iii) subsistence agriculture (which according to the SEIAR is "the main way in which household nutritional needs are met"); and (iv) the availability of safe land and drinkable water.63 However, since it can be assumed that the household surveys are indicative of the views of a homogenous group within the affected communities' population (i.e., male heads of households), it can certainly be argued that these concerns would multiply if the voices of all groups within the community were heard and adequately reported on.

*Other defects in the community surveying process*

145. Alongside the flawed household surveys, the SEIAR identifies several worrying realities that plagued the community surveying process.

    a. Firstly, the SEIAR notes that the community surveying process was facilitated by a liaison with familial links to the Nkosi of the Zulu-Ntembeni Traditional Authority.[64] According to the SEIAR, this ethical misnomer created "potential for selection bias in community surveying". No information is provided to assure that efforts that were taken by the EAP to mitigate the effects of this bias, which leads one to reasonably conclude that all survey results ought to be treated with the utmost scepticism.

    b. Secondly, the SEIAR notes from the outset that certain "pre-existing social conditions" exist within the affected communities in which the Project is to be constructed. These pre-existing social conditions include allegations of misrepresentation by traditional authorities and the prospects of violence and intimidation "being meted out against community members perceived to be against the mine's establishment and operations".[65] The violence and intimidatory tactics employed against community members opposing the Project

[63] Appendix S, p 60 – p 61.
[64] Appendix S, p 9.
[65] Appendix S, p 8.

have not been adequately addressed in any manner whatsoever. Some community leaders have been forced into hiding, and others fear for their lives daily. The reality is that community members who oppose the construction of the Jindal MIOP do so at grave risk to themselves and their families. For these reasons, the results of surveys and public participation discussions will never be accurate and adequately representative of the views of the community until such a time that the affected communities feel that they are safe to voice their views without fear of reprisal.

c. Thirdly, the SEIAR admits that an in-depth review of the demographic and socio-economic profile of the communities in the North Block has not been attempted.[66] In effect, the SEIAR reports on a portion of the affected communities and worryingly uses data from the South Block to make predictions on community views in the North Block.

d. Lastly, the SEIAR discloses the fact that the public participation process was hindered by delays "which also impacted the stakeholder engagement process, creating challenges in ensuring all stakeholders engaged in the SEIA possessed a similar level of prior sensitization to the project".[67] No further information is provided on which stakeholders were most negatively impacted, and it is concerning that certain community meetings, such as the Siyavuna Community Meeting, took place virtually.[68] We know that the community was unable to effectively engage in the virtual meeting, and yet the SEIAR is silent on SLR's efforts to ensure that community members were properly engaged in the virtual process.

*Misplaced emphasis on the employment power of the mining sector*

146. Based on StatsSA GDP figures for 2019, which have been obtained through the Tourism Satellite Account for South Africa report, released annually, the tourism sector contributed 3,7% to South Africa's GDP in 2019.[69] Measured against other industries, the tourism sector is larger than the agriculture, forestry and fisheries sectors highlighted in Figure 6 in the SEIAR, including utilities (electricity, gas & water).

[66] Appendix S, p 50.
[67] Appendix S, p 50 – p 52.
[68] Appendix S, p 52 & 53.
[69] https://www.statssa.gov.za/?p=14992

147. However, since the Melmoth and Eshowe regions are largely employment generators for the tourism, agriculture, and forestry sectors with great potential for expansion, the combined GDP is 6.2% and on par with the mining sector. The advantage is that tourism, agriculture and forestry (including conservation) offer long-term sustainability for jobs and for the natural environment, whereas mining will destroy natural resources and have implications for livelihood.

148. Furthermore, according to the Mining Industry Report (2019),[70] the total income for the mining industry was R552,1 billion. However, if one breaks this figure down, 'Mining of coal and lignite' earned the largest share of income (R156,1 billion or 28,3%), followed by 'mining of platinum group metal ore' (R153,7 billion or 27,9%), 'mining of iron ore' (R65,3 billion or 11,8%) and 'mining of gold and uranium ore' (R63,4 billion or 11,5%).

149. In terms of job creation, employment in the mining industry declined from 538 144 in 2012 to 514 859 in 2019 (a loss of 23 285 jobs). The biggest losses in jobs were recorded in 'mining of gold and uranium ore' (a loss of 42 091 jobs), 'mining of platinum group metal ore' (a loss of 8 190 jobs) and 'other stone quarrying, including stone crushing and clay and sandpits' (a loss of 4 249 jobs). Employment in the iron ore mining sector in 2019 contributed to 26 270 jobs (5.1%).[71]

150. Employment generation for the tourism, agriculture, forestry and fishery sectors far outperforms mining, with tourism alone providing more jobs than the mining sector in 2019. Tourism activities and their associated tourism expenditure directly contributed R209 billion to the national economy in 2019 (this excludes the indirect jobs created by the tourism sector as a value chain).

151. Tourism employed 773 533 people in the formal sector in 2019, which translates to about 1 in every 21 people employed.[72] In 2019, the number employed in agriculture, hunting, forestry, and fishing amounted to approximately 885,000 people. Agriculture, Forestry and Fishery added R69 049 billion to the GDP in 2019.[73]

152. Therefore, the tourism, agriculture, forestry and fishing sectors combined far outperform employed created by the mining sector, and the undue emphasis placed on the employment power of the mining sector, and the EIAR is misleading and incorrect.

[70] https://www.statssa.gov.za/publications/Report-20-01-02/Report-20-01-022019.pdf
[71] http://www.statssa.gov.za/publications/Report-20-01-02/Report-20-01-022019.pdf
[72] https://www.statssa.gov.za/?p=14992
[73] https://www.statssa.gov.za/publications/P0441/P04414thQuarter2019.pdf

Valid reasons for refusal based on the SEIAR

*Employment and up-skilling of the affected communities*

153. Perhaps the most valid, and worrying, issue raised by the SEIAR is whether the Project will drive employment and skill development in the affected communities. The SEIAR makes several contradictory findings and statements in this regard.

154. On the one hand, the SEIAR notes that job creation is "one of the most significant positive impacts of the establishment and operations of the proposed MIOP",[74] and that "many of these opportunities *could theoretically* be ring-fenced for the local communities in the receiving environment".[75] [our emphasis]. The SEIAR also asserts that job creation will exist parallel to the "general upskilling of the community and especially of community members that are employed by the mine".[76]

155. On the other hand, however, the SEIAR cautions against optimistic reliance on the Project's employment and skill creation possibilities. This cautionary stance can be seen in the SEIAR's findings that during the operational phase of the Project (the phase with the longest life span while the mine remains functional), the utilization of the affected communities' labour force is unlikely due to the "technical skill and education requirements of the MIOP".[77]

156. It remains to be seen what conclusions can be drawn from the contradictory findings of the SEIAR. While certain acts of mitigation are argued to drive employment and upskilling initiatives, the community can in no way be assured that these efforts will be seen to by Jindal.

157. Another issue which ought to be accounted for, which is not addressed in the SEIAR, is the fact that during the operations phase of the mine, **only** 800 FTE employment opportunities will be sustained per year. This number is minuscule when considering the number of people who stand to lose their source of livelihood as a result of the mine operations (i.e., due to its impact on agriculture), and contracts further when considering the fact that a very limited proportion of the affected communities' population will be able to take up these positions given their technical and educational requirements. The agricultural sector in Nkwalini alone employs more than 4000 people, and the impact of the Tailing Storage Facility will devastate this industry.

[74] Appendix S, p 76.
[75] Appendix S, p76.
[76] Appendix S, p75.
[77] Appendix S, p 69.

*Increased demand on a constrained service delivery system*

158. The negative inferences that ought to be drawn from the uncertainty over whether the Project will positively or negatively impact employment and skill development in the affected communities are exacerbated by the SEIAR's findings that the construction and operation of the MIOP will lead to an increase in population in the affected communities and the communities surrounding them.[78]

159. The potential labour influx identified by the SEIAR has serious ramifications, including increased rates of crime (including violent crime);[79] social tension between residents of the affected communities and those who form part of the population influx;[80] as well as increased transmission of certain diseases, such as tuberculosis and HIV/Aids.[81]

160. Adding to these very serious ramifications is the fact that the affected communities already suffer the effects of poor service delivery. The demand for basic services is borne out of municipal mismanagement, as well as constrained access to water and sanitation. In the SEIAR's own words, "an increase in the population will increase the demand for basic services in an environment that is already suffering from low levels of service delivery".[82] The SEIAR make this statement as a matter of fact, which reinforces its assertion that the Project will most likely look past the affected communities when sourcing its human labour.

*Impacts of resettlement*

161. Any resettlement of the affected communities will be disastrous. The SEIAR notes that the average household in the affected areas accommodates 10 people, which "might pose a challenge when the community must be relocated".[83] The SEIAR seems to suggest that adequate compensation will be applied as a worthy mitigator but does not elaborate on how the compensation roll-out will take place. Without the benefit of a Resettlement Action Plan (RAP), the affected community is in no place to properly

[78] Appendix S, p67.
[79] Appendix S, p67.
[80] Appendix S, p67.
[81] Appendix S, p67.
[82] Appendix S, p67.
[83] Appendix S, p 60.

comment on the effects of their resettlement and only the immediate consequences can be scrutinized.

162. A RAP plays a vital role in projects where people are displaced and/or resettled. It is a public document which specifies the procedures that will be followed and the actions that will be taken to (i) mitigate project-induced adverse effects, (ii) compensate for project-induced losses, and (iii) provide development benefits to resettlement-affected households and communities. International resettlement guidelines indicate that the RAP must be prepared through a process of public consultation with all interested and affected parties.

163. The main objective of a RAP is to set out the processes by which support will be provided to overcome the project's adverse effects and thus in effect it becomes a transitional plan to restore the livelihood base of resettled households. The ultimate goal is a process which must endeavour to enable the resettled households to improve their standards of living. As such the RAP should also outline the key resettlement packages and assistance to be provided, and any commitments regarding compensation and broader social development benefits to be provided must also be recorded in writing in the RAP.

164. The completed document should then be made publicly available to all affected persons and other stakeholders.

165. International guidelines and best practice also require that the effectiveness of the RAP should be monitored in order to identify implementation problems as early as possible to allow for timely adjustment of implementation. Most importantly, the purpose of monitoring the effectiveness of the RAP is to provide both the project implementers and the impacted households and communities with timely, concise and indicative information on whether the resettlement, the payment of compensation, and the mitigation measures are on track. The RAP is as much a project management tool for the implementers as it is a source of vital information for the affected people.

166. Without a RAP, it is impossible for affected households and communities to know in a transparent manner what the entire resettlement process entails and to monitor whether the RAP is delivering on what it promises; and at the same time, without a RAP it becomes very difficult for the project implementer to manage the conflict and unrest that could have a negative impact.

167. In the absence of a RAP, it is also questionable whether compensation will ever adequately address the resentment, conflict, and disruptions to cultural heritage posed by the mine ejecting people from their homes and land. In the words of the SEIAR, "[r]*esettlement is likely to strain or possibly sever people's customary and religious networks by moving them away from their places of worship and practice, with ancestral connections to the land being lost*."[84] For this reason, the rights of the community to retain access to their land, housing, and cultural heritage should retain a high degree of weight when compared to any benefits bestowed upon them by the mine.

*Impact on agriculture*

168. The SEIAR notes a plethora of concerns raised by various stakeholders within the agricultural sector that stand to be impacted by the Jindal MIOP. Seemingly, the most notable concerns of the sector are:[85]

    a. The loss of agricultural potential;

    b. A constrained ability to meet stringent export requirements;

    c. Decreased productivity; and

    d. Decreased labour availability, with the concurrent effect that job losses are not adequately absorbed by the Project.

169. The sector's concerns are shared in the EAIR, which notes several disastrous effects that the mine will have on the agricultural sector in the absence of stringent and effectively implemented mitigation strategies. These effects include:

    a. The contamination of agricultural operations through wind-blown dust and soil toxification;

    b. Job losses in the value chain;

    c. Loss of export earnings;

    d. Water pollution and contamination in the area of the proposed MIOP as well as large parts of the surrounding area;

    e. Greater strain on already constrained water supply; and

[84] Appendix S, p 71.
[85] Appendix S, p 62.

f. The introduction of contaminated liquids into downstream water systems.[86]

170. The concerns of the agricultural sector and the SEIAR should not be overlooked. The sector is the largest driver of economic sustainability in the area of the proposed mine and is the single largest source of employment.[87] Further to this, the affected communities are under-served by national, provincial and local government and rely heavily on subsistence farming to survive. According to information on the StatsSA website, the involvement of households in agricultural activities for subsistence farming plays a pivotal role in reducing vulnerability to hunger in rural and urban food-insecure households. The statistics highlight that out of 16.2 million households in South Africa, about 2.5 million households (15.6%) relied in some form on agricultural activities for survival (as of 2017). Predominantly rural provinces with high levels of poverty, which includes KwaZulu-Natal (20%) were furthermore shown to have the highest proportions of households that relied on agricultural subsistence farming to source and supply their own food.[88]

171. The intersectional ramifications felt by the agricultural sector should also not be overlooked. The impacts felt by the agricultural sector are "cross-cutting" in that they affect a plethora of other sectors, including climate, employment and service delivery. As an example, the SEIAR notes that for the Mthonjaneni and uMlalazi Local Municipalities, there are "[p]oor levels of access to safe and clean potable water".[89] Therefore, the effects of water contamination noted by the agricultural sector do not only impact the sector but also have wider ramifications for the region generally. It is no wonder that the SEIAR views the loss of agricultural potential as Very High, meaning that without substantial intervention, the affected communities will suffer serious consequences.[90]

*Impact on tourism*

172. There is a significant body of research that expounds on the negative impacts that mining activities have on tourism. For example, the Mapungubwe Heritage Site in Limpopo has faced significant challenges in recent years due to increased mining operations in the area, and calls have been made for mining to be disallowed to

[86] Appendix S, p 77.
[87] Appendix S, p 77.
[88] http://www.statssa.gov.za/?p=12135
[89] Appendix S, p 40.
[90] Appendix S, p 77.

safeguard the cultural significance of the tourist destination.[91] Furthermore, tourism is essentially a value-based sector that relies on public perceptions of an area's value to drive its economy. Hence, the tourism sector around the Project has expressed great concern about the damaging effects that the mine will have on relevant stakeholders, such as accessibility to sites of cultural significance.[92]

173. The concerns of the sector are shared in the SEIAR, which finds that the negative impacts to be faced by the tourism industry are "likely to extend beyond the site boundary and into the whole region […]".[93] Yet, the SEIAR is largely silent on effective mitigation measures and relies heavily on the assumption that Jindal will take appropriate action to rectify identified negative impacts on the tourism sector.[94]

Climate

174. KwaZulu-Natal province is a climate change-induced region. Further release of GHGs will exacerbate the impacts felt by vulnerable communities in the province. From the climate change report, it is clear that the proposed Jindal project will contribute to GHGs emissions.

175. The "Climate Change Study" ("CCS") prepared by Promethium Carbon in 2022 confirms that central parts of the municipality are predicted to experience floods due to rainfall variability. A major flaw in the climate study of the EIAR is that it is only concerned with localized mitigation strategies at the mine while neglecting the local communities and the environment. More information on mitigation and adaptation strategies to climate change impacts on the communities, agriculture, and the overall environment is required. This is not recorded as a gap in the EIAR.

176. The CCS states that "[t]he site is located 25 km southeast of Melmoth, within the Mthonjaneni Local Municipality, in KZN. Projected change in water stress shows how development and/or climate change are expected to affect water stress, which is the ratio of water use to supply. The "business as usual" scenario represents a world with

[91] Leonard, L "Exploring the Impacts of Mining on Tourism Growth and Local Sustainability: The Case of Mapungubwe Heritage Site, Limpopo, South Africa" Sustainable Development, Volume 26, No. 3 (2017) 206 216. Also see Leonard, L "Mining and/or tourism development for job creation and sustainability in Dullstrrom, Mpumalanga" SageJournals, Volume 31, No 1 (2015).
[92] Appendix S, p 62.
[93] Appendix S, p 79.
[94] For example, the SEIAR asserts that the mine "should actively promote and encourage its visitors to utilize the tourism products that are in the area, especially those offering board and lodging". See Appendix S, p 81.

stable economic development and steadily rising global GHG emissions. The projected increase in water stress is "low -medium", suggesting that there is a 10-20% possibility that water stress will increase by 2030…"[95] What is not stated in the EAIR is that the Project will add to the water stress and increase water stress for the area. Research shows that there is an interplay between climate change, mining impacts and water (and food) security and this is not considered.

177. From the CCS it is unclear what technological innovations related to water and energy and inter-sectoral collaborations will be implemented in order to achieve water security. This is a major gap in the study.

178. The CCS is inadequate in several respects but the most startling is this claim: "The global economy will not be able to move to a lower GHG emissions scenario without a substantial increase in renewable energy infrastructure development which will require steel. The Project will therefore have a positive net climate change impact."

179. In reality, the emissions associated with the Melmoth mine's output and consumption are acknowledged in the study to be nearly 500 megatonnes of CO2-equivalent 'over its lifetime' (of 25 years), based on assumptions drawn from Jindal's operations in India. The vast majority of the associated emissions are downstream, in the form of indirect Greenhouse Gases associated with iron ore smelting into steel, and further processing.

**Table 13: Construction and operation emissions for the Jindal Project – SANS14064-1 (2021).**

| Emission category | Emission source | Construction phase | Operation phase | Total over life of project (25 years) |
|---|---|---|---|---|
| **Category 1: Direct GHG emissions and removals)** | Diesel Combustion | 1 530 tCO2e | 103 029 tCO2e | 2 575 722 tCO2e |
| **Category 2: Indirect GHG emissions from imported energy** | Electricity | | 1 213 978 tCO2e | 30 349 453 tCO2e |
| | Fuel & energy related emissions not included in category 1 and 2 | 340 tCO2e | 159 855 tCO2e | 3 996 375 tCO2e |
| **Category 3: Indirect GHG emissions from transportation** | Waste generated in operations | 444 tCO2e | | |
| | Employee commuting | | 546 tCO2e | 13 659 tCO2e |
| | Downstream transportation and distribution | | 220 804 tCO2e | 5 520 102 tCO2e |
| **Category 4: Indirect GHG emissions from products used by organization** | Purchased goods and services | 323 568 tCO2e | | |
| **Category 5: Indirect GHG emissions from use of products sold by organization** | Processing of sold product | | 18 144 000 tCO2e | 453 600 000 tCO2e |
| **Total indirect emissions** | | **324 531 tCO2e** | **19 739 184 tCO2e** | **493 479 589 tCO2e** |
| **Total emissions** | | **325 881 tCO2e** | **19 842 212 tCO2e** | **496 055 311 tCO2e** |

[95] Appendix M, page 34, para 5.1.3.3

180. The cost to society of such a vast amount of emissions – approximately the same as South Africa's current *total annual* CO2e emissions (including from land use) – can be estimated, but Promethium fails to do so. The Social Cost of Carbon – i.e., the $/tonne of CO2e that reflects GHG emissions damage – should be incorporated, because when the International Monetary Fund regularly reports on 'fossil fuel subsidies,' its estimations (e.g. from September 2023) are extremely disturbing: $55.7 billion (R1.07 trillion) in implicit annual fossil fuel subsidy externalities due to South Africa's failure to price CO2 appropriately (with a $0.33/tonnec arbon tax). The IMF assumes a $63/tonne (of CO2e) Social Cost of Carbon; while University College London peer-reviewed research estimates[96] of the cost of emissions are $3000/tonne due to feedback effects that the IMF ignores.

181. An explanation in the CCS is missing such costs, but in section 4 of the CCS, they are referred to only obliquely:

a. **Broader context of climate risks**

- Climate change results in different types of risks, such as social/environmental risks and commercial risks. Commercial risks are market-related risks, while social and environmental- related risks are externalities which are not typically priced into commercial risks. In the context of NEMA, commercial risks are not relevant, however, the inclusion of externalities must be considered. Externalities refer to the cost or benefit that is imposed onto a third party that is not incorporated into the final cost.

**b. Social and Environmental Externalities**

- The Jindal Project could contribute to social and environmental externalities. Steel production, which requires mined iron ore, is one of the most energy-consuming and $CO_2$ emitting industrial activities globally. As such, the Jindal Project could result in increasing GHG emissions which would also have the associated cost of air pollution in the region, which is considered an externality.

182. There are two reasons that the Social Cost of Carbon must be considered an externality to be included. The first is that South Africa's existing steel-making capacity has been

[96] https://www.ucl.ac.uk/news/2021/sep/economic-cost-climate-change-could-be-six-times-higher-previously-thought

measured by the Organisation for Economic Cooperation and Development at between 8 million (current) and 12 million (2010) tonnes/year[97], at a time when the world has 2.5 billion tonnes of capacity, of which approximately 30% has been under-utilised for around a decade. In other words, for South Africa to maintain what is understood to be generally inefficient production (hence the 33% decline during the 2010s, as numerous steel foundries have been closed[98]), is not a rational use of global capacity, nor of the scarce coal-fired power whose electricity is used for smelting.

183. One rebuttal is that if South Africa's own iron ore supplies (e.g. from the main producer, Kumba's Sishen mine or some of the other major Northern Cape mines) are sufficient for local production, then Jindal will simply use the Richards Bay harbour for export. However, that does not solve the problem of generalised world oversupply. Hence any *additional* supply from South Africa that contributes to this over-capacity in imports and exports, and in turn contributes to climate change, can be justifiably questioned as irrational.

184. To the charge that the Project's anticipated output will result in an unnecessary expansion of iron ore capacity, the CCR's reply is unconvincing:

> "The iron and steel industry are already and will continue to play a critical role in the global transition to a low-carbon economy. The World Bank predicts a steel demand of 2.5 billion tonnes under a 2°C scenario, driven by the growth in demand for components used in renewable energy technologies. The global economy will not be able to move to a lower GHG emissions scenario without a substantial increase in renewable energy infrastructure development which will require steel. The Project will therefore have a positive net climate change impact."

185. In short, the CCS assumes that the Project's iron ore will be used by steel mills to produce frames for solar energy or wind turbines, or other climate-friendly outputs. But this is an extraordinarily optimistic scenario, with no data, market studies or commitment to specified, targeted sales to renewable energy manufacturers (of which there are very few in South Africa at present), to suggest a 'positive net climate change impact.'[99]

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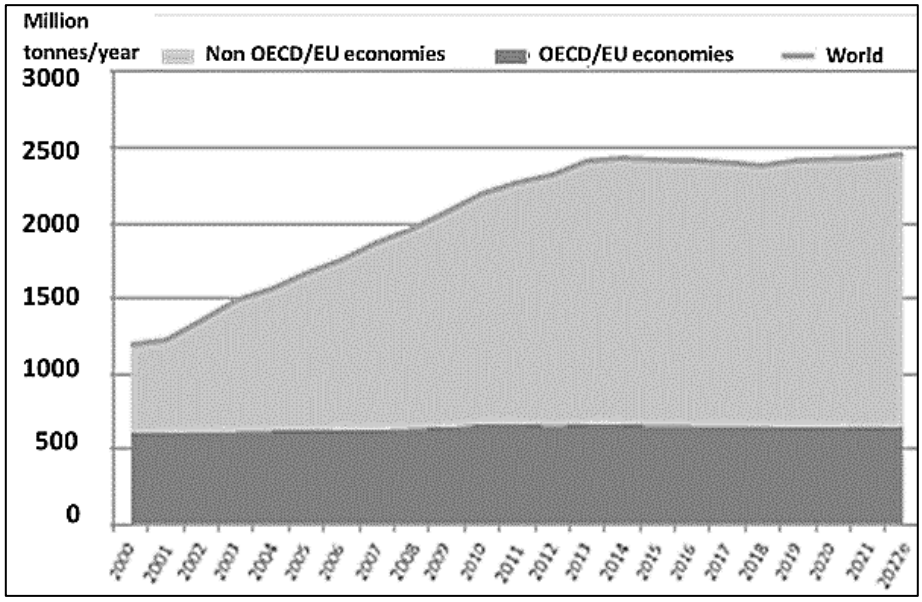
[97] https://www.oecd.org/sti/ind/latest-developments-in-steelmaking-capacity-2022.pdf

[98] Mainly by ArcelorMittal but also with the bankruptcy of Highveld Steel & Vanadium in 2016

[99] In a section with further details, the CCR guesses that: "the project could result in 2 743 tCO2e abated by the economy for every tonne of iron produced. The mine itself will only emit 0.18 tCO2e/tonne ore, which is immaterial when compared to the potential abatement. The lifetime emissions of the project forms 0.01% of the emissions that could be abated through its potential contribution to the transition to a low-carbon economy." Methodologically, this is dishonest, as the CCK is cherry-picking its data, to suggest that the iron ore mining itself is negligible as a source of immediate emissions – ignoring the downstream effects –

186. The world's current steel capacity is already 2.5 billion tonnes, so no further steel mills are required. For example, in central Zimbabwe, another 6 million tonnes of steel production capacity are under construction by Dinson, a subsidiary of the Chinese Tsingshan group. The main reason for this location is the nearby existence of a major iron ore deposit near Chivhu, with an estimated *billion tonnes of iron ore* available.

**World steel production capacity:**[100]




187. One additional reflection of the status of steel and iron ore overcapacity is the volatile but generally declining price of iron ore, measured in US$/tonne. From the peak years of 2008-12 when Chinese infrastructure expansion made up for the West's financial collapse, the price then collapsed from 2014-20. Then in 2021-22 after the pent-up Covid demand was :

**Iron ore price, 2008-23 ($/tonne)**[101]

*but then wants to take credit for the downstream production of steel that may or may not be used in renewable energy installations.*

[100] https://www.oecd.org/sti/ind/latest-developments-in-steelmaking-capacity-2022.pdf

[101] Source: https://tradingeconomics.com/commodity/iron-ore


188. The second reason that it is imperative the CCS consider the costing of climate externalities, whether $50+ billion over the life of the project (using the IMF $63/tonne estimates for the 500 megatonnes of associated emissions) or $2.4 trillion (using University College London $3000/tonne estimates), is that a full-cost accounting of South Africa's reliance upon highly energy-intensive economic activity, such as smelting iron ore, is vital for national planning purposes. The scarcity of electricity the country faces is one such factor. But another is the certainty that a Carbon Border Adjustment Mechanism tariff penalty will be imposed on South African steel exports by Western purchasers, starting in Europe but with a strong likelihood of adoption in Britain and the United States.

189. According to the 2020 International Energy Agency (IEA) Report, '…Among heavy industries, the iron and steel sector ranks first when it comes to CO2 emissions and second when it comes to energy consumption. The iron and steel sector directly accounts for 2.6 gigatonnes of carbon dioxide (Gt CO2) emissions annually, 7% of the global total from the energy system and more than the emissions from all road freight. The steel sector is currently the largest industrial consumer of coal, which provides around 75% of its energy demand. Coal is used to generate heat and to make coke, which is instrumental in the chemical reactions necessary to produce steel from iron ore…' The report goes on to state that, 'Deep emission reductions are not achievable without innovation in technologies for near-zero emissions steelmaking. Of the cumulative emission reductions to 2050 in the Sustainable Development Scenario, 30% stem from steelmaking technologies that are at demonstration or prototype stages today…'

190. South Africa does not have the necessary technology, and the EIAR provides no indication of such technologies needed for emission reduction. As indicated globally, there are demonstration or prototype stages, and it is highly likely that Jindal will not be able to implement such technologies to reduce emissions in the near future. The IEA report highlights that the People's Republic of China accounts for more than half of global steel production today and – despite high domestic demand – it is also the largest exporter, followed by Korea, Japan and the Russian Federation…' In essence, there will be long-term technical challenges and emission reduction difficulties.

191. Exploring alternative materials and recycling steel may be more feasible for emission reductions but is also complex. The International Renewable Energy Agency Report (2023) notes that 'A transition towards a fully sustainable and climate-neutral steel sector will require decisive action to continue advancing all levers of circularity. Key steps include improving material efficiency, increasing the share of recycled steel (as more scrap becomes available over time) and making steel production processes more efficient. While all the above measures can make an important contribution, they will not be enough on their own to make the sector environmentally sustainable in the long run…The role of steel recycling will continue to grow over time as more scrap becomes available in emerging economies, resulting in larger shares of recycled steel, in turn progressively reducing the need for primary production. By 2050, about half of the world's steel production could come from recycled scrap…'

192. From the above, it is evident that there will be complexities and challenges associated with iron and steel transitioning to a low-carbon economy, and this should not be underestimated. Addressing emissions in the industry requires a multi-faceted and coordinated approach that will require technological innovation, government support and funding, etc. South Africa is not there as yet, and Jindal does not provide details on any advanced technology. Broad statements such as the one highlighted do not assist with the Project, which will contribute to emissions. The EIAR provides no information about how the Project will have a positive net climate change impact and technologies to achieve that.

193. In summary, the failure of the CCS to incorporate any of the logical costings associated with the climate-destructive implications of iron ore and steel, reveals that CCS's outlandish claim – that the Jindal mine will "have a positive net climate change impact" – is not based on serious analysis.

## III. SUMMARY

194. In summary, the land assessed in this EIAR as well as that for the greater 202 km$^2$ area will never return to the levels of agricultural production that it is presently capable of sustaining. It is likely that the secondary and tertiary impact will result in a much larger area being sterilised. The local community is hostile to the project; the TSF, road and harbour impacts have not been factored into this EIAR; and the cost in the loss of land-based livelihoods and agricultural jobs will not be offset by the 800 mining jobs the Project will provide.

195. The consideration of need and desirability in EIA decision-making, requires the consideration of the strategic context of the development proposal along with the broader societal needs and the public interest. The government decision-makers, together with the environmental assessment practitioners and planners, are therefore accountable to the public and must serve their social, economic and ecological needs equitably.

196. According to the EIA regulations,[102] the objective of an EIA, through a consultative process, is to determine the-

    a. nature, significance, consequence, extent, duration and probability of the impacts occurring to inform identified preferred alternatives; and

    b. degree to which these impacts i) can be reversed; ii) may cause irreplaceable loss of resources, and (iii) can be avoided, managed or mitigated;

    c. identify suitable measures to avoid, manage or mitigate identified impacts; and identify residual risks that need to be managed and monitored.

197. The Constitutional Court summed up the thrust of these requirements when it said that NEMA, read in light of the constitutional provisions to which it gives effect, requires the "need for development [to] be determined by its impact on the environment, sustainable development and social and economic interests. The "objective of this exercise", the court held "is both to identify and predict the actual or potential impact on socio-economic conditions and consider ways of minimising negative impact while maximising benefit".[103]

[102] Appendix 3, Section 2(d)
[103] Fuel Retailers Association of Southern Africa v Director-General: Environmental Management, Mpumalanga 2007 (6) SA 4 (CC) paragraphs 79 to 81

198. The Application has failed to meet the first step of the three requirements set out above. Without determining the impacts, the other two requirements cannot follow.

199. The EIA Regulations appendices also specify that the scoping report and environmental impact report[104] must provide a motivation for the need and desirability of the proposed project and that I&APs must be afforded an opportunity to make representation in terms of their views in terms of the need and desirability considerations.

200. The consideration of "need and desirability" in EIA decision-making therefore requires the consideration of the strategic context of the development proposal along with the broader societal needs and the public interest. The government decision-makers, together with the environmental assessment practitioners and planners, are therefore accountable to the public and must serve their social, economic and ecological needs equitably.

201. The need for and desirability of a proposed activity should specifically and explicitly be addressed throughout the EIA process when dealing with individual impacts and specifically in the overall impact summary, specifically with regard to securing ecological sustainable development and use of natural resources.

202. The report by the Word Commission on Environment and Development, Our Common Future, issued in 1987 (the "Brundtland Report"), is widely regarded as the key point in the evolution of the concept of sustainability and sustainable development'. The Brundtland Report defines this as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs".

203. Although the Need and Desirability section of the EIAR[105] contains the two headings 1) Ecological Sustainable Development and Use of Natural Resources which speaks to the concerns for the biodiversity loss and overallocation of the water catchment, and 2) Promoting Justifiable Economic and Social Development which speaks to employment and eliminating poverty, it fails to reflect the truth of the Project which we have clearly set out above.

204. The truth is that the Project is unsustainable, will most likely devastate the rural economy and result in the loss of vast swathes of agricultural land and mass job losses, will cause huge environmental harm and will add dramatically to the water woes of the area and downstream users. There is no mitigation that can overcome these kinds of

[104] Regulations appendix 1 (3) (f), appendix 2 (2) (f), appendix 3 3(f) of Government Notice No. R. 982, 4 December 2014.
[105] Page vi

impacts. Yet, in spite of this, the EIAR concludes the Need and Desirability section with the naive statement that "[i]*mportantly, the proposed Jindal MIOP must take measures to limit any negative impacts on agriculture and tourism development, as these are both considered vital sectors of the municipal economy*."

## IV. CONCLUSION

205. The principles contained in NEMA, serve as a guide for the interpretation, administration and implementation of NEMA and the EIA Regulations. One of the principles specifically requires that environmental management must ensure that decisions take "into account the interests, needs and values of all interested and affected parties"; and ensure that the environment is "held in public trust for the people, the beneficial use of environmental resources must serve the public interest and the environment must be protected as the people's common heritage".

206. Given the numerous gaps and uncertainties and the lack of public participation, it is impossible comply with this principle of NEMA.

207. After setting out the assumptions, gaps and uncertainties in a table that takes up 13 pages of the EAIR, the EAP states:

*"It follows therefore, that the findings of the impact assessment undertaken show that there is the potential for significant impacts throughout all phases of the project, however, with the effective implementation of the EMPr, careful planning and ongoing engagement with all stakeholders and potentially affected parties there is no biophysical, social, or economic reason why the project should not* proceed".

208. This suggests that the EAP is not independent and/or incompetent as this final recommendation is completely irrational given the gaps in information and flaws in the public participation process.

209. The EIAR should not recommend that the Project be authorised.

210. Lastly, we request the following:

    a. That, should the applicant and EAP proceed to submit the final EIAR to DMRE for consideration, a copy of the final EIAR, including the Comments & Response Report and all other supporting documents, be made available to all I&APs upon submission.

b. That the final EIAR highlight the amendments made to the draft EIAR either as coloured text and/or italics and underscoring.

c. That the documents that All Rise has requested be provided within a week of submission of these comments.

Yours faithfully,

Kirsten Youens & Janice Tooley

(Sent electronically)