



Generalisations omissions assumptions

The failings of Vedanta's Environmental Impact Assessments for its bauxite mine and alumina refinery in India's state of Orissa

EXECUTIVE SUMMARY

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Generalisations, omissions, assumptions

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Executive Summary

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An *adivasi* woman carrying a pot of water on her head in front of the Vedanta refinery in Lanjigarh.

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Introduction

This report highlights deficiencies in the Environmental Impact Assessments (EIAs) undertaken by Vedanta Resources Plc for its proposed bauxite mine in Niyamgiri, Orissa, its alumina refinery in Lanjigarh, Orissa, and the proposed expansion of this refinery.

Vedanta Resources Plc is a UK-registered mining company with strong Indian connections. It owns and controls subsidiaries in India that are engaged in mining and refining activities in the state of Orissa. The company has come under growing national and international scrutiny in recent years, owing to allegations of human rights abuses associated with these operations. Throughout this report 'Vedanta' is used to refer to the corporate group, including the entities operating in Orissa under the effective management control of Vedanta Resources Plc.

Documented abuses of human rights

Amnesty International published a report in February 2010 documenting human rights abuses and demonstrating that plans to mine bauxite and expand the refinery in Orissa are likely to have devastating effects on local communities.¹ This report, based on research conducted over two years and including several field visits, concluded that:

- Pollution associated with Vedanta Aluminium's refinery has seriously undermined human rights, including the right to health and a healthy environment, and the right to water.
- The proposed bauxite mining project threatens the survival of a protected Indigenous community.
- India's governmental bodies have failed to respect and protect the human rights of communities as required under international human rights law.
- The companies involved in the mine and refinery projects have ignored community concerns, breached state and national regulatory frameworks and failed to adhere to accepted international standards and principles in relation to the human rights impact of business.

The failure to ensure proper consultation with the affected communities included serious deficiencies in the public hearings associated with the EIA process. This, combined with inadequate information about the company's plans, has raised fears that the company is seeking to avoid legitimate scrutiny of its operations in Orissa. Many non-governmental organisations (NGOs) besides Amnesty International have raised concerns about Vedanta's operations in Orissa. Survival International, which is particularly concerned about the rights of the Indigenous Dongria Kondh community in the proposed mining area, made a complaint to the UK National Contact Point (NCP).² On 25 September 2009, the NCP released its findings, concluding that Vedanta Resources had 'failed to engage the Dongria Kondh in adequate and timely consultations about construction of the mine or to use other mechanisms to assess the implications of its activities on the community such as indigenous or human rights impact assessment.'³ According to the NCP, it 'has not found any evidence, either in documentary form or video recordings, that confirms that the Dongria Kondh were consulted ... and that their views had been collected and taken into account.'⁴

1 Amnesty International, February 2010, *Don't Mine us out of Existence: Bauxite Mine and Refinery Devastate Lives in India*, AI Index: ASA 20/001/2010.

2 The UK authority responsible for examining breaches of the Organisation for Economic Co-operation and Development (OECD) Guidelines for Multinational Enterprises.

3 Final Statement by the UK National Contact Point for the OECD Guidelines for Multinational Enterprises, 25 September 2009, p 1. www.oecd.org/dataoecd/49/16/43884129.pdf

4 *Ibid*, para 49.

In response to such serious concerns about the company's operations, a number of shareholders, including the Norwegian government⁵ and the Church of England,⁶ divested their holdings in Vedanta. Other investors held meetings with the company's chairman, Anil Agarwal, and other board members, urging them to improve the way the company governs its human rights and environmental impacts.

Ministerial rejection of projects and Vedanta's challenge

In August 2010, following an expert committee report on Vedanta's compliance with India's regulatory requirements commissioned by the Ministry of Environment and Forests (MoEF), the Ministry decided to reject Vedanta's proposed mine and also suspend the clearance process for the alumina refinery expansion. Vedanta Aluminium, however, has challenged the Ministry's decision to suspend the clearance process in the High Court of Orissa. The Orissa Mining Corporation, a joint venture partner of Vedanta, has also challenged the Ministry's rejection of the mining proposal in the Supreme Court of India.

In March 2011 the MoEF's expert committee for the environmental appraisal of mining projects met to consider whether Vedanta's EIAs for the proposed mine in Niyamgiri were an adequate basis for granting environmental clearance. The committee concluded that the two EIAs conducted by Vedanta met the necessary requirements and that the company had in place an effective environmental management plan.⁷ The MoEF subsequently issued a press release distancing itself from these findings, pointing out that it is not bound by them and that the question of granting environmental clearance does not arise because it depends on forest clearance⁸ which the MoEF has rejected outright.⁹

Given the conflicting perspectives and the two legal challenges, a close scrutiny of Vedanta's EIAs and the degree to which they comply with India's regulatory requirements is vital. Otherwise there is a risk of licences being granted on the basis of flawed processes and deficient baseline data.

An independent review

In September 2010 Vedanta's bank lenders commissioned an independent review of the company's approach to sustainable development.¹⁰ The findings of this review, drawing on evidence from the Lanjigarh refinery, highlight systemic failings in Vedanta's social and environmental stewardship, including deficiencies in the company's EIAs for the Lanjigarh refinery. These criticisms are particularly significant in the light of Vedanta's repeated claims that it performs to the highest environmental standards and that it always complies with regulatory requirements.¹¹

The regulatory process

The government of India has duties under international law to protect the human rights of its people: it is obliged to take steps to ensure that companies operating in India do not breach those rights. India should have in place laws and regulatory systems to prevent corporations abusing human rights, and to hold companies accountable for their actions. In particular, India should ensure that licences to carry out mineral and metal exploration, and to construct and operate mines and refineries, are contingent on certain standards of conduct being met.

5 Council on Ethics to the Government's Pension Fund, 15 May 2007, *Recommendations to the Norwegian Ministry of Finance*. www.regjeringen.no/upload/FIN/Statens%20pensjonsfond/Recommendation_Vedanta.pdf

6 'Church of England Disinvests from Vedanta Resources plc', 5 February 2010. www.cofe.anglican.org/news/pr2010.html

7 Summary record of the 13th meeting of Expert Appraisal Committee for environmental appraisal of mining projects constituted under EIA Notification 2006, 23-25 March 2011.

8 India's environmental and forest laws make it mandatory for companies to obtain prior clearances for new industrial projects involving major changes in land use patterns. The MoEF evaluates applications and grants clearances. The Forest Conservation Act, 1980, regulates forest clearances, while regulation under the 1986 Environment (Protection) Act governs environmental clearances.

9 MoEF Press Note, 2 July 2011, *Reports on Environmental Clearance being Granted to Vedanta at Niyamgiri Incorrect*.

10 Scott Wilson, 17 November 2010, *Vedanta Resources plc and Lanjigarh Refinery: Independent Review of Sustainability Policies and Practices*. <http://csr.vedantaresources.com/scottwilson.html>

11 See Chapter 2.3 of the main report, *Vedanta's claims about its environmental standards*.

One key measure the Indian government has adopted as part of its environmental regulatory process is an environmental approval mechanism. This requires EIAs to be carried out for projects and to be shared with affected communities at public hearings on or close to the project site.¹²

Vedanta's EIAs

The primary purpose of EIAs in general is to establish pre-project environmental baseline information and consider project-related environmental threats.

In this report, Amnesty International examines whether the EIAs produced by or for Vedanta's subsidiaries and joint ventures in Orissa to gain clearances for the Lanjigarh refinery and the Niyamgiri mine are consistent with the specifications required in India's regulations. The report also considers how far these EIAs could have enabled the company to anticipate and address the consequences of its proposed activities on the human rights of the people affected by them.

The report considers the five EIAs produced for Vedanta from 2002 until 2008 by three different consultancies (see box). The main findings, conclusions and recommendations are set out below.

The EIAs for Vedanta's refinery and mine in Orissa

- **The 2002 Lanjigarh refinery EIA**
Tata AIG Risk Management Services Ltd, 2002a.
- **The 2002 Niyamgiri mine EIA**
Tata AIG Risk Management Services Ltd, 2002b.
- **The 2005 Lanjigarh refinery EIA**
Vimta Labs, 2005a.
- **The 2005 Niyamgiri mine EIA**
Vimta Labs, 2005b.
- **The 2008 Lanjigarh refinery expansion EIA**
Global Experts, 2008.¹³

The findings are presented in three categories:

- **Technical findings** (Chapter 3) on the extent to which Vedanta's EIAs meet the environmental criteria required by the MoEF. These have been informed by advice from international experts on the social and environmental impacts of mining operations.
- **Findings on the limited number of socio-economic issues** that the MoEF expects companies to address (Chapter 4). These include land use, land clearance, displacement of villages and population, and rehabilitation and resettlement packages, as well as sites of cultural, historic or religious importance.
- **Findings on the human rights dimension** of the mine and refinery (Chapter 5), looking at the human rights issues which were implicit but not addressed in the EIAs. This chapter looks specifically at how the gaps and deficiencies highlighted in the preceding chapters contributed to the failure to properly identify or assess the human impacts of the mine and refinery project. It also looks at the human rights impacts that an environmental assessment would not capture.

12 On 6 July 2011 the *Hindustan Times* reported that the MoEF henceforth would undertake EIAs for projects in ecologically sensitive zones and for large multi-sectoral projects.

13 Tata AIG Risk Management Services Ltd, 2002a, *Rapid environmental impact assessment report for 1.0 mtpa alumina refinery proposed by Sterlite Industries Ltd. at Lanjigarh*. Tata AIG Risk Management Services Ltd, 2002b, *Rapid environmental impact assessment report for bauxite mine proposed by Sterlite Industries Ltd. at Lanjigarh*. Vimta Labs, 2005a, *Comprehensive environmental impact assessment for the 1.0 mtpa alumina refinery and captive power plant at Lanjigarh*. Vimta Labs, 2005b. *Rapid environmental impact assessment for the proposed bauxite mines (3110 mtpa) at Lanjigarh*. Global Experts, 2008, *REIA & EMP Report of expansion of Alumina Refinery from 1 MMTPA to 6 MMTPA Capacity of M/s Vedanta Aluminium Limited, Lanjigarh*.

Technical findings

Overview of environmental analysis

Vedanta's EIAs are public documents that should be an important and reliable source of information on the company's activities. In particular, these documents should enable communities that may be affected by the company's proposed activities to take an informed decision on how to respond. This can only happen if the EIAs are comprehensive, accurate and relevant, and if they are presented in a way that is meaningful and accessible to these communities.

Vedanta's EIAs fail on all these counts. For instance, the EIA reports prepared for the proposed mine are not accompanied by detailed management and monitoring plans designed to mitigate and minimise any identified impacts. The technical complexity of the documents is problematic in the light of the requirement to consult with affected people through a public hearing, and with regard to the vast disparities that exist in India in terms of education. An abundance of technical language and mathematical models is clearly not the best way to communicate with illiterate or disempowered people with a stake in outcomes. The balance between the need to present technical detail for environmental mitigation and the rights of people to be consulted and informed is not an easy one to strike. International experience, however, provides examples of ways forward, which could meet both needs.¹⁴

Choice of mine and refinery locations

The choice of locating an alumina complex in the Lanjigarh area has never been properly assessed in the EIAs alongside potential alternatives. No data has been presented on the cumulative impact of multiple projects, including the expansion plan for the refinery. This is a failure to comply with the requirement of India's 1994 and 2006 EIA Notifications to consider alternatives, and additionally a failure of the 2008 EIA to examine the cumulative impact of current and potential future projects.

Within the chosen area, the location of the refinery poses threats to affected communities. The refinery EIAs fail to take into account the fundamental risk of locating an alumina refinery next to the Vamsadhara River which is in close proximity to several villages whose inhabitants use it for drinking and bathing. The only rationale for site choice presented in the refinery EIAs relates to economic considerations, which raises concerns that environmental and social considerations were given little weight.

Refinery and mine air emissions

The model used to predict air pollution from the refinery is unreliable, because the EIAs fail to identify all sources and types of pollution, neglect the impact of topography and rely on inadequate weather data. The choice of air quality sampling locations fails to include a number of affected sites and there is no clear justification for the choice of sites for sampling. The omission of any account of dust from the waste ponds is a direct failure to comply with India's EIA Notifications requirement to list all sources of air pollution (1994 Notification), and include sources of dust and odour (2006 Notification).

The 2005 mining EIA acknowledges dust pollution but does not propose to measure baseline data, does not discuss potentially affected locations on Niyamgiri Hill and also does not propose to monitor

¹⁴ See for example: Howitt, R, 2001, *Rethinking resource management: justice, sustainability and indigenous peoples*; O'Faircheallaigh, C, 'Negotiating Cultural Heritage? Aboriginal-Mining Company Agreements in Australia' in *Development and Change*, 2008, 39(1), 25-51; Scholtz, C S, 2006, *Negotiating claims: the emergence of indigenous land claim negotiation policies in Australia, Canada, New Zealand, and the United States*.

the dust. The stipulation of the 1994 EIA Notification to establish all sources of air pollution has not been followed. This failure is even more critical in view of the specific requirement of the MoEF's 2009 environmental clearance to study the impact of air pollution in the nearest habitation.

Disposal of waste

Pollution control at the site of the refinery has been compromised from the outset by the choice of a high risk location next to a river. The failure to disclose the design criteria of the containment ponds makes expert assessment of the robustness of the waste containment measures impossible.

Some detailed design criteria for waste storage also need to be reconsidered. The waste ponds have been located close to the drainage of the Vamsadhara river. The groundwater has been found to be as little as two metres from the surface during the monsoon, and the soil used to compact the base of the pond has high permeability, indicating it might not be appropriate for the purpose. The natural conditions of the site do not appear to have been taken into account, creating serious risks for pollution in the future.

Breaches in the red mud pond reported by local residents in April and May 2011 have raised serious concerns about pollution of local water bodies.¹⁵

Water use and pollution

For both the mine and refinery sites there are large gaps in the provision of the detailed information that is essential for the analysis and prevention of water pollution. It is thus not possible to perform a risk assessment of the plans set out in the EIAs. This deficiency is repeated across different EIAs by different consultants. There appears to be a shared complacency and unjustifiable over-confidence in the use of technology to prevent pollution, with no allowance made for the potential fallibility of technologies used. This has led to pollution by the refinery of nearby water bodies and groundwater.¹⁶

The failure of the refinery expansion EIA of 2008 to give a clear picture of water availability is a serious shortcoming. The mention of an existing agreement for water between Vedanta Aluminium and the Orissa government raises the question as to why the agreement details are not provided: they could have significant implications for the region from which the water is sourced.

Transport

Transport is misleadingly viewed in the EIAs as an activity not essential to the operations of either the mine or refinery. While India's 1994 EIA Notification was not very clear about the details required, the 2006 EIA Notification sets out clear requirements for addressing transport issues. These are further developed in the MoEF's 2008 Terms of Reference document for the refinery expansion. The refinery EIAs of 2005 and 2008 fail to take into account the transport of ore by truck to the refinery, presumably in expectation that the nearby Niyamgiri mine would soon be opened. This expectation has proved to be false and bauxite ore is being transported across long distances. The result is that a large number of trucks each day ply the dusty roads through the villages of rural Orissa, giving rise to complaints of noise, dust and exhaust emissions.¹⁷ Since mid-2010 a railway line to Lanjigarh has been carrying some of this bauxite.

15 Latha Jishnu, 'Vedanta's red mud pond leaks into Vamsadhara river', *Down To Earth*, 11 April 2011, www.downtoearth.org.in/node/33296; Amnesty International, 1 June 2011, *India: Toxic sludge leak from Vedanta's red mud pond threatens rural communities* www.amnesty.org/en/news-and-updates/india-toxic-sludge-leak-vedantas-red-mud-pond-threatens-rural-communities-2011-06-0.

On 3 June 2011 the MoEF issued a statement reporting that on inspection, no breaches in the red mud pond had been found. Amnesty International consequently raised further questions with the MoEF regarding the inspection process.

16 As documented by the Orissa State Pollution Control Board Inspection Report on Vedanta Aluminium, 29-30 January 2008.

17 Amnesty International, February 2010, *Don't Mine us out of Existence: Bauxite Mine and Refinery Devastate Lives in India*, AI Index: ASA 20/001/2010, pp69-70.

The mine EIA fails to address the potential impacts of the conveyor belt for transportation of ore, which cuts a path up the lower reaches of the hillside past villages and through forested areas. There is no discussion of the potential impacts that will arise from operating the belt, especially with regard to noise, dust and further forest clearance.

Environmental management

An Environmental Management Plan (EMP) is an essential part of an EIA to ensure that the company acts on its findings and operates according to specified plans and requirements. Where the EIA attempts to predict certain unacceptable environmental impacts in order to adopt measures to avoid or mitigate them, the EMP should ensure that such measures are actually taken. Effective implementation of an EMP and use of pollution control equipment necessitates ongoing monitoring of operations, including environmental emissions. None of the EIAs for the Lanjigarh refinery and Niyamgiri mine make provision for this. There is no clarity on who has the responsibility to monitor conditions and validate the data that Vedanta submits. There is also no risk analysis to identify the consequences of potential system failures, and therefore no management strategies for such events.

De-commissioning and the future of the area

The EIAs deal only in a very cursory way with long-term effects and the possibilities of rehabilitating the mine and refinery sites for a return to former land uses after closure. The mining EIAs fail to address concerns relating to hydrological changes due to mining. Potential changes to local water streams have been highlighted in various expert reports but are not mentioned in the mining EIAs. Reforestation is presented as a goal without taking into account current environmental attributes or the interests and wishes of the local population who are now in a position to stake a claim to the area via India's Forest Rights Act. There is no account of how all the waste products from the mine and refinery will be stored and treated following closure of the facilities.

Socio-economic findings

Land, livelihoods and displacement

In agrarian communities, change in land-use caused by major development projects has a deep socio-economic impact. India's regulatory system has very limited requirements for assessment of social impacts. Even in this limited context, Vedanta's EIAs are inadequate.

The failure on the part of all Vedanta's EIAs to provide detailed, specific and accurate information on land use in the project areas undermines the possibility of proper analysis of the project's impacts on the lives and livelihoods of affected persons, many of whom are landless. Substantive details should have been provided about the people displaced by the projects and those who would lose access to common land or to agrarian-based employment. The data provided by the consultancies producing the EIAs is sometimes inconsistent: for example they differ on the numbers of people that would be displaced by Vedanta's mining operations. These inconsistencies are not explained.

The EIAs state that the company will rely on the Orissa government's Resettlement and Rehabilitation policy, but ignore that policy's deficiencies. For instance, only those who have formal land titles are entitled to compensation as displaced or affected persons. The EIAs should address the consequences of displacement for those who are dependent for their livelihood on land they do not own.

Inadequate information on affected populations

The EIAs provide scant information on the communities that will be affected by the mine and refinery projects. They refer to broad classifications of people in a way that fails to acknowledge or address cultural, social, and livelihood specificities of the affected communities, and the impact of gender roles. This ignores the different modes of subsistence of these communities that may be affected by mining and refining activities in different ways. Some of the groups most at risk are not even identified. Vedanta's failure to disaggregate data by class, caste, tribe and gender makes it impossible to assess the degree to which affected individuals and communities can adapt to a loss of livelihood by learning new skills or taking up job opportunities offered by the proposed projects and avoid even greater poverty.

Ignoring cultural significance

Neither of the EIAs for the mine refers to the cultural significance of the Niyamgiri Hills to the Dongria Kondh. This is in breach of India's EIA regulatory requirements. It also falls far short of international industry standards, such as those of the International Council on Mining and Metals (ICMM), whose guidelines state that companies should respect the culture and heritage of Indigenous Peoples.¹⁸ The Niyamgiri Hills are revered as sacred by the Dongria Kondh, and the group's sense of identity and community is intrinsically linked to residing on the hills.¹⁹ Vedanta's failure to collect baseline information on religious places and community structure ignores the Indian government's guidelines for data to be provided in an EIA.

18 ICMM, 2010, *Indigenous Peoples and Mining: Good Practice Guide*. www.icmm.com/page/208/indigenous-peoples

19 Bhushan C and M Zeya Hazra, 2008, *Rich lands poor people: Is 'sustainable' mining possible?*, p239; Amnesty International, February 2010, *Don't Mine us out of Existence: Bauxite Mine and Refinery Devastate Lives in India*, AI Index: ASA 20/001/2010.

Human rights findings

Overview of human rights analysis

EIAs are not intended to be a mechanism to assess the potential human rights impacts of a project. At present, few governments require any assessment of the human rights impacts of projects such as mining and refining, despite substantial evidence that human rights are frequently adversely affected by such projects. UN human rights experts have noted that this can undermine states' ability to discharge their legal obligation to protect human rights.

However, there is an emerging consensus on corporate responsibility for human rights that companies – as a minimum – must respect all human rights. This is the position articulated by Professor John Ruggie, the UN Special Representative of the Secretary-General (UN SRSG) on the issue of human rights and transnational corporations and other business enterprises,²⁰ in his 2011 report to the Human Rights Council.²¹

The UN SRSG has emphasised the need for companies to undertake 'due diligence', which involves taking proactive measures to become aware of, prevent and address adverse human rights impacts. Assessment of human rights impact is increasingly seen as vital for businesses, particularly in sectors that are highly physically invasive, such as the extractive industries. According to the UN SRSG:

In order to identify, prevent, mitigate and account for how they address their adverse human rights impacts, business enterprises should carry out human rights due diligence. The process should include assessing actual and potential human rights impacts, integrating and acting upon the findings, tracking responses, and communicating how impacts are addressed.²²

The EIAs reviewed for this report identify a number of issues and environmental impacts that would have negative human impacts. However, the EIAs do not consider or assess the repercussions of the environmental impacts on human rights.

The rights of Indigenous Peoples

As a party to the International Covenant on Civil and Political Rights (ICCPR), the International Covenant on Economic Social and Cultural Rights (ICESCR), the International Convention on the Elimination of All Forms of Racial Discrimination and the International Labour Organisation's Indigenous and Tribal Populations Convention (Convention No. 107), India is under an obligation to protect the rights of Indigenous Peoples over the lands and territories they traditionally occupy.

The Niyamgiri Hills are home to the Dongria Kondh, an 8,000-strong *adivasi* (Indigenous) community spread over 90 villages in and around the hills. The EIAs do not consider existing uses of land in the Niyamgiri Hills, or assess the potential for land use to be affected by mining and associated processes such as transportation and an influx of workers into the area. Nor do the EIAs consider that air pollution from the mine, including dust, overburden and possible pollution of water, may affect the lives or livelihoods of Indigenous communities. In respect of air quality, no baseline sampling was done in any of the villages in the Niyamgiri Hill range and no subsequent monitoring of air pollution is proposed.

20 Also referred to here as the UN Special Representative on business and human rights.

21 Ruggie, J, 21 March 2011, *Guiding Principles on Business and Human Rights: Implementing the United Nations "Protect, Respect and Remedy" Framework*, A/HRC/17/31.

22 *Ibid*, para 17.

At no point, while undertaking assessments or otherwise, have the companies involved in the proposed mine consulted with, or made any attempt to seek the consent of, the Dongria Kondh to the lease of the lands or any other aspect of the Niyamgiri mining project. Nor have the communities been provided with adequate and timely information on the proposed mining project on their traditional lands.

Effects of land acquisition and evictions in relation to the refinery

While the EIAs provide some data on the potential displacement, this data is largely technical, and does not consider the impact of land acquisition and eviction on the people affected. The impacts of loss of access to, or eviction from, privately owned or common public lands can be wide-ranging. For example, loss of land can negatively affect people's livelihoods and food security, even when people are compensated for the land itself; rural communities may struggle with the challenges of moving from an agricultural-based subsistence way of life to a monetised or wage-based one. These issues are not considered in the EIAs. Moreover, the EIAs fail to consider the loss of access to public lands, or the impacts this may have on the ability of people to secure their livelihood and access to food.

Impacts on the right to health and a healthy environment

The ICESCR guarantees the right to health. In elaborating the content of this human right the UN Committee on Economic, Social and Cultural Rights (CESCR) has clarified that:

the right to health embraces a wide range of socio-economic factors that promote conditions in which people can lead a healthy life, and extends to the underlying determinants of health, such as access to safe and potable water ... and a healthy environment.

The EIAs note that a buffer zone will be put in place between the boundary of the refinery and the local villages. However, the EIAs are silent on the implications for the communities in the period before the buffer zone is in place. There is no assessment of the cumulative impact of exposure to a range of emissions on the nearby villages. The refinery EIAs fail to take into account the fundamental risk of locating an alumina refinery next to the Vamsadhara river and in close proximity to several villages. Nor do the EIAs identify how the river is used by local people. The EIAs do not identify any need to have plans in place for failures to meet the zero emissions scenario or to ensure local people are properly informed of any risks to their health in the event of any leakages.

The mine EIAs also fail to adequately consider issues of air and water pollution and the risks these pose to human health and access to drinking water. Neither the health risks posed by water pollution, nor the ability of people to access water for drinking and other domestic purposes, are given adequate attention in the EIAs.

Failure to consider gender issues

The Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW) imposes a legal obligation on state parties to respect, protect and fulfil the rights of women to equality and non-discrimination. The Convention obliges state parties to ensure that:

- there is no direct or indirect discrimination against women in their laws
- women are protected against discrimination – whether committed by public authorities, the judiciary, organisations, enterprises or private individuals, in public or in private – by competent tribunals, sanctions and other remedies.

A significant omission in the EIAs is the absence of any qualitative information and analysis of how men and women will be affected differently as a result of their gender-specific social and economic roles and status in their communities. Instead, the EIAs rely on a cursory recognition of the impoverishment and low literacy rates of the affected women. The EIAs lack the baseline information to capture how displacement, reduced access to communal property, the inward migration of workers and environmental pollution and degradation are likely to impact upon women's lives in a different way from men's.

The premise underpinning the EIAs that the projects will benefit all the affected communities, combined with the lack of gender analysis, leads to the assumption that women will automatically benefit from the proposed projects. The reality is different: the proposed project may well expose women and girls to greater poverty and dependence.

Evidence from other extractive projects in India shows a number of predictable human rights impacts on women, including loss of access to resources and livelihood, greater insecurity and increased vulnerability to violence. Vedanta's EIAs failed to identify any of these.

Right to information and participation

The principles of transparency, consultation and participation are embedded in international human rights law and standards. Expert bodies of the UN and regional human rights institutions have made clear the importance to human rights of ensuring that people have access to information and can participate meaningfully in decisions that affect their rights. In major commercial projects, both the government and the companies involved should ensure that affected people have adequate access to information, that they are consulted, and that their views are taken into account before the project goes ahead.

However, the requirement for public consultations or public hearings under India's EIA process is minimal, and does not conform with international human rights standards. The EIA process includes public participation in the form of the dissemination of the EIA report and a public hearing. While this is an important aspect of the process, it has significant shortcomings. Very limited information is provided to communities, and much of what is provided is not accessible. The information is usually in writing, in technical language and often not in local languages. Those who are not literate or who do not have the capacity to understand technical reports cannot access the written information. Public meetings are limited and the evidence available suggests that major issues are not explained, nor are possible risks discussed with those who attend. No effort is made to ensure that marginalised groups can obtain and understand the information or attend the meetings, and little attention appears to have been paid to the views that community members expressed.

These shortcomings were reflected in misinformation and lack of consultation on the refinery plans, and a failure to consult on the mining plan. An assessment of this is presented in Amnesty International's 2010 report.²³

Right to liberty and security of the person, and freedom of expression and assembly

Among the human rights issues that an EIA process would be very unlikely to touch upon are the rights to freedom of expression, association and assembly, and the rights to liberty and security of the person. However, these human rights are frequently relevant in the context of extractive industries, such as oil, gas and mining. This is because extractive industries are often very physically invasive and when they operate in areas of poverty and marginalisation, without adequate measures to protect human rights, local people protest. In India, as in several other countries, such protests by local communities often meet with a repressive response from the state, and in some instances from private security companies, leading to violations of human rights.

These rights are particularly relevant in the context of Vedanta's Orissa operations because of accusations that the police, cooperating with security guards employed by Vedanta, were used to intimidate villagers in Lanjigarh and Niyamgiri in order to suppress dissent.²⁴

²³ Amnesty International, February 2010, *Don't Mine Us Out of Existence: Bauxite Mine and Refinery Devastate Lives in India*, pp27-32, pp34-40.

²⁴ *Ibid*, p40.

Summary of failings in Vedanta's EIAs to meet India's regulatory requirements

Failing in EIAs	Requirement breached
There is no substantive discussion of alternative sites for the mine and refinery	EIA Notifications 1994 and 2006
The cumulative impacts of mining and refining activities in close proximity are not drawn out	EIA Notification 2006
Choice of air quality sampling locations does not include all affected sites	MoEF's 2004 Terms of Reference for refinery
Not all sources of emissions and pollutants are clearly identified	EIA Notifications 1994 and 2006; MoEF's 2008 Terms of Reference for refinery expansion
Dust and odour are not acknowledged as potential sources of pollution	EIA Notifications 1994 and 2006
No ongoing monitoring of dust or mitigation measures is proposed	MoEF's 2004 Terms of Reference for refinery
There is insufficient discussion and justification of design criteria for the red mud and fly ash ponds, and the exact location of expanded ponds is not specified	MoEF's 2008 Terms of Reference for refinery expansion
No means are suggested for monitoring continuous and incremental pollution	EIA Notification 2006
No detailed hydrological maps are provided to show information about surface water	MoEF's 2008 Terms of Reference for refinery expansion
No adequate information is provided on water usage	EIA Notifications 1994 and 2006
No details are provided of water availability in the Tel River to supply all the refining and mining complex's needs	EIA Notification 2006
No acknowledgement is given of the impacts caused by transportation of bauxite from other mines to the refinery or the impacts of the conveyor belt used to transport ore from Niyamgiri to the refinery	EIA Notification 2006; MoEF's 2008 Terms of Reference for refinery expansion
No detailed and specific information is given on land use by local communities and numbers of villages and population to be displaced	EIA Notifications 1994 and 2006; MoEF's 2008 Terms of Reference for refinery expansion
There is no reference to the cultural significance of the Niyamgiri Hills to the Dongria Kondh	EIA Notifications 1994 and 2006

Conclusions

Amnesty International's analysis of Vedanta's EIAs for the Lanjigarh refinery and proposed Niyamgiri mine demonstrates that they fail to do what they are supposed to do – which is to assess the potential environmental and social impacts of the company's mining and refining operations. The EIAs are also inadequate to ensure that the company is fulfilling its responsibility to respect human rights. While EIAs are not intended as tools to assess human rights impact, Vedanta carried out no other impact assessment process in relation to human rights, even after serious human rights problems were brought to the company's attention.

In allowing the company to construct and operate the refinery on the basis of these EIAs, the Indian government failed to fulfil its duty to protect the human rights of people who are and who will be affected by the refinery. The same consideration would apply to the expanded refinery and the mine, although currently clearance for each of these developments to proceed has been withheld by India's Minister of the Environment.

The EIAs contain insufficient detail of the populations that will be affected by Vedanta's mining operations. They fail to disaggregate data to enable an understanding of the differential impacts on women and on the social and cultural groups that will be disproportionately affected. The EIAs for the mine and refinery provide identical information on population, land use and cropping patterns, despite the demographic differences between the two areas. This raises serious concerns about the quality of the research underpinning the EIAs.

The availability of accurate information and the recognition of communities beyond broad categories are critical for shaping understanding of how these communities relate to and depend on their environment, including their use of land and forests. It is also key to anticipating risks and taking adequate mitigation measures. A human rights perspective would insist that impact assessment processes include detailed information on the needs and capacities of particular communities affected, the disparities within and between communities in access to resources, their levels of education and the skills that they possess. A human rights perspective would also address risks posed to particular groups within these communities as a result of pre-existing factors such as discrimination and lack of decision-making power. These groups include women, children and the elderly. Finally, a human rights approach would embody meaningful consultation and participation to ensure that the process of impact assessment, the conclusions drawn and the mitigation measures undertaken are effective in enabling respect for human rights.

Where full EIAs were not completed, as was the case with most of those submitted by Vedanta, the MoEF should not have accepted the 'rapid EIAs' as adequate for projects of this scale. But even the rapid EIAs submitted by Vedanta should have alerted the MoEF to systematic deficiencies in the company's approach. These are characterised by sweeping generalisations, glaring omissions and unwarranted assumptions.

Generalisations on affected communities: The assessments do not accurately portray who will be affected by the projects. Through reliance on out-dated government data, the assessments homogenise and mask the affected populations. In reality, communities affected by the projects have distinct characteristics in relation to labour, livelihoods, culture, and gender divisions. The assessments also fail to acknowledge adequately the existence of some affected communities, particularly the Dongria Kondh, whose villages or hamlets may not be listed in official governmental records.

Generalisations on the usefulness of technology for environmental control: Any technology is liable to fail if it is not sensitive to the local context, or if not used according to a well-specified environmental management plan. The EIA reports appear to be underpinned by an unchallenged

assumption that technology will overcome natural conditions. They do not discuss inherent pollution risks associated with locating a mine or a refinery next to a river. The refinery EIAs fail to discuss risks of water pollution during construction, nor is there any concern for the de-commissioning of large waste ponds. The reliance on technology is also reflected in the failure to provide for ongoing monitoring, which would enable early detection of spills. This has already proved to be a problem, as revealed in Orissa State Pollution Control Board reports of pollution from the refinery.²⁵

Omission of any consideration of risks to human rights: The assessments fail to identify or address serious risks to human rights. There are no baseline studies to accurately represent who will be affected by the projects, and how the exploitation of natural resources and associated environmental pollution may impact upon the health, livelihoods, culture and gender needs of these communities. Additionally the cultural and spiritual value of the land to some affected communities is not addressed.

Omissions on displacement and migration: The assessments do not accurately portray who will be affected by displacement, land loss and migration. Where they acknowledge the broad need for 'resettlement', they give minimal details on how this will be done in a just manner or how people who are landless but who rely on common land for their livelihoods, or on labouring on the land of others, will be compensated for their loss.

Omission of gender: The assessments are devoid of any gendered analysis of the impacts of the projects or the proposed mitigation measures. Specific impacts on women are not identified, for example:

- Displacement without adequate compensation because of lack of formal land ownership
- Loss of access to common grazing land and livelihood
- Lack of personal safety and increased insecurity associated with an influx of migrant population, greater vulnerability to harassment and prostitution, and decreased space for women to congregate safely.

Omission of information and detail: The assessments lack detail and information regarding the overall environmental impact of both the refinery and mine. The mining EIAs largely ignore the environmental consequences of the mine, and how the environmental impact of mining could be minimised. There is no detailed investigation of the actual vegetation of the proposed mining area, nor of those locations affected by road and conveyor belt transport, or affected by the dumping of overburden waste. Local streams and water bodies have not been investigated despite being clearly visible on detailed topographical maps.

Assumptions on livelihoods: A broad assumption is made that people who have historically been involved with a set of activities for their livelihood and sustenance can alter their practices in response to the encroachment of major industrial projects. While some individuals may be able to make this change, the disturbance could lead to poverty, marginalisation and alienation of some communities. Indigenous and dalit communities are among those most likely to lack the necessary qualifications for any new jobs that are provided. The assessments do not reflect the importance of forest resources for local livelihoods, nor do they reflect how a loss or change in access to forest goods will affect the capacity of people to meet their subsistence requirements.

Assumptions on location: The choice of location for the refinery just next to the Vamsadhara river is highly questionable, because it increases the potential consequences of any spill or other polluting event. This problem is compounded by the proposed six-fold expansion in production, the consequent increase in red mud storage area, and the failure to measure the quality of river water, deemed unnecessary because it was assumed there would be zero emissions. Since the EIAs were produced, inspection reports have revealed that spills have occurred.

25 Orissa State Pollution Control Board, 2008, *Inspection Report on M/S Vedanta Aluminium Limited Lanjigarh, Dist: Kalahandi*; Orissa State Pollution Control Board, 2007, *Inspection Report on M/S Vedanta Aluminium Limited Lanjigarh, Dist: Kalahandi, Orissa*.

Assumptions on air pollution: The air pollution monitoring stations are not located in or near to the villages closest to the mine and refinery sites. Moreover, these stations are not in the locations that the EIAs predict will be the most likely to be affected by pollution. Therefore, not only is the information about current pollution incomplete, but the inadequate monitoring structure ensures that the true air pollution levels will not be adequately captured in future. In terms of air emissions from the refinery, only a narrow range of pollutants are being monitored compared to what would be considered leading practice, and the number of sources of pollution examined is limited. This means it will be impossible to detect high levels of many air pollutants. The failure to assess air pollution from dust and odour is an additional weakness.

Vedanta claims that it ensures its projects are carried out in accordance with ‘international best practice’.²⁶ However, Vedanta’s impact assessments are well behind their international counterparts, as acknowledged in the Scott Wilson report prepared for Vedanta’s bankers.²⁷ While there are widespread problems in the mining industry as a whole, the ICMM guidelines on *Human Rights in the Mining and Metals Industry* reflect the fact that many other mining companies, including the major international competitors of Vedanta, have accepted the need for some measures to assess their human rights impacts.²⁸ Some mining companies have recognised that it is essential to address the environmental, social, cultural, economic and human rights issues associated with their operations. This approach is identified by these companies as ensuring long-term sustainability for their business. It is also more consistent with the approach urged by the UN Special Representative on business and human rights. An examination of Vedanta’s EIAs demonstrates that the company does not subscribe to this approach in the Indian context. It performs well below international best practice, and in so doing exposes affected communities to a range of risks that it could – and should – address.

As an internationally listed corporate entity, Vedanta should hold itself to a higher standard. It should avoid making claims about its impacts on the environment and on sustainable development that misrepresent the full breadth of the possible impacts and it should aim to meet international leading practice. For this to happen, the company would have to acknowledge the true impacts of mining and refining on the local environment and affected communities, and develop robust mitigation responses. A properly conducted impact assessment would be an important step in the right direction.

26 See, for example, Vedanta’s rebuttal of Amnesty International’s claims, February 2010. www.mineweb.com/mineweb/view/mineweb/en/page674?oid=97837&sn=Detail&cpid=1

27 Scott Wilson Ltd, November 2010, *Vedanta Resources plc and Lanjigarh Refinery: Independent Review of Sustainability Policies and Practices*. <http://csr.vedantaresources.com/scottwilson.html>

28 ICMM, 2009, *Human Rights in the Mining & Metals Industry: Overview, management approach and issues*. www.icmm.com/page/14809/human-rights-in-the-mining-and-metals-industry-overview-management-approach-and-issue

Recommendations

To the government of India

- Strengthen existing socio-economic requirements and indicators for the EIA process, including those on gender, to ensure that impact assessments can more accurately capture the impacts on specific groups within the affected population.
- Amend the legal framework so as to require companies to carry out environmental, social and human rights impact assessments, particularly for all high-risk projects and activities, including extractive industry projects.
- Require that environmental, social and human rights impact assessments are undertaken by competent and impartial institutions that are suitably qualified.
- Require that impact assessments look at cumulative impacts; this should apply to related projects; for example a related refinery and mine would need to be assessed together for their cumulative impact on a given area.
- Amend the requirements on public participation in the assessment process to ensure that affected communities can participate in the process; provide specific guidance in relation to issues of gender and marginalisation; and require full disclosure of the assessments in a form that is accessible to the affected communities and to particular groups within those communities, including women.
- Bridge the knowledge gap by requiring the production of non-technical impact assessment documents and by appointing an ombudsperson to work on behalf of potentially affected communities.
- Require Vedanta to conduct fresh impact assessments for the Lanjigarh refinery and Niyamgiri mine that conform fully with current regulatory requirements
- Introduce strict penalties and/or disqualify projects where the EIA requirements are not met or where proper and effective environmental management plans are not implemented.
- Suspend all clearances and licences for the Niyamgiri mine and expanded Lanjigarh refinery until Vedanta has cleaned up existing pollution, compensated victims adequately, sought the free, prior and informed consent of the Dongria Kondh in relation to the mine, and addressed the human rights impacts of the project.

To Vedanta and its subsidiaries and joint ventures

- Suspend all plans to mine or expand the refinery until the human rights issues are properly addressed.
- Adopt leading international industry methods for managing the environmental impacts of bauxite mining and alumina refining.
- Ensure that impact assessments address all human rights that could potentially be affected by the project.
- Complete baseline socio-economic surveys to understand who will be affected.
- Ensure that any displacement or land loss is fully compensated, regardless of formal land ownership.
- Make a clear commitment to respect the right to free, prior, informed consent of Indigenous Peoples.
- Put in place policies and process to ensure that all affected individuals have timely access to full information about projects that may affect them.
- Recognise cultural values attached to the proposed mine site.
- Implement proper pollution control measures.
- Ensure that impact assessments have a gender dimension so that the differential impacts on women and men are considered.

- Ensure full disclosure of impact assessments in a format that is accessible to those affected, as well as full disclosure of management and implementation plans to address the findings of the assessment.
- Urgently and fully address the existing negative environmental, health, social and human rights impacts of the Lanjigarh refinery, in open consultation with the affected communities.

To Vedanta's bankers and investors

- Express concern to Vedanta about the actual and potential impacts of its operations in Orissa on human rights and call on the company to implement the above recommendations.
- Ask Vedanta to report regularly on its progress to address the environmental and human rights concerns surrounding its operations in Orissa.
- Call for a suspension of all plans to mine or expand the refinery until the human rights issues are properly addressed.
- Develop an engagement and escalation strategy that will bring about changes in Vedanta's conduct, including effective forms of pressure and sanctions.

Abbreviations

CEDAW	Convention on the Elimination of All Forms of Discrimination Against Women
CESCR	UN Committee on Economic, Social and Cultural Rights
EIA	Environmental Impact Assessment
EMP	Environmental Management Plan
ICCPR	International Covenant on Civil and Political Rights
ICESCR	International Covenant on Economic Social and Cultural Rights
ICMM	International Council on Mining and Metals
MoEF	Ministry of Environment and Forests of India
NCP	National Contact Point – the authority responsible for examining breaches of the OECD Guidelines on Multinational Enterprises
NGO	Non-governmental organisation
OECD	Organisation for Economic Co-operation and Development
UN SRSG	UN Special Representative of the Secretary-General





Daka Majhi stands outside his house in Lanjigarh. Vedanta has been involved in controversial negotiations to buy land in the area.
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