

Mongolia:

The Oyu Tolgoi Copper & Gold Mine Project

Comments on Chapter D1 of the ESIA:
“Environmental and Social Management Plan Framework”
32 pages, dated 31st July 2012

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1. The ESIA is about one decade overdue

Oyu Tolgoi mine exploration began in 1997. This chapter and elsewhere states that construction is on line to be completed by December 2012 and operations will begin in January 2013. This means construction is 94% complete so practically all the decisions have been taken without having the benefit of the mandatory ESIA. The 2012 ESIA is about one decade late. The ESIA is a design tool process that needs to run in parallel with the Feasibility Study and to feed into the Feasibility Study throughout its often 24 month duration. The ESIA is dated 31st July 2012, which means it could not have fed into the Feasibility Study. The ESIA cannot run retroactively. In some ways even more serious is that not only is the ESIA late in terms of the construction having already taken place, but it also doesn't include the final information on implementation of operational impacts/management plans, and therefore the operational phase ESIA will also be late. Making the ESIA into a useless sham is consistent with Ivanhoe CEO Robert Friedland's knowledge of OT's environment in his claim: "*The nice thing about (Oyu Tolgoi) is that there are no people around, the land is flat, there's no tropical jungle, there are no NGOs.*" (Jan. 21st 2012, The Economist)

IFC's PS1 Para 6 states: *The environmental assessment process may recommend alternative (higher or lower) levels or measures, which, if acceptable to IFC, become project- or site-specific requirements.* The PS1 applies to the entire project cycle (e.g., design, construction, commissioning, operation etc., see: #4, p. 2). This means that the OT ESIA violates PS1 because it cannot apply to the critical design and construction phases as it was dated when construction was almost complete. Prevention is cheaper and more effective than cure. The most powerful element of the ESIA is to design out or prevent the more serious impacts. This is now impossible because the design phase was completed years ago without the benefit of the ESIA. There may have been some previous ESIA documents, but they were not available and may not have fed into this first ESIA of July 2012. As many if not most impacts accrue during the construction phase, the ESIA has to be completed before construction – and its impacts – begins and preferably before, during the design phase. In fact PS1 Para 28 deals with the ESIA in cases where the precise location of the project has not yet been decided. EBRD's requirements are very clear that the

EIA, consultation etc shall be complete before any project implementations can begin (e.g., page 6 of the 2010 ESD).

Oyu Tolgoi is committed to creating an environment of 'zero harm', but this depends on knowing environmental and social baseline conditions pre-project so that 'zero harm' can be assessed. One of the first and most important products of the ESIA process is establishment of baseline or pre-project conditions against which changes (positive or negative) can be assessed. For example, one must know herd sizes and composition pre-project to enable impacts to be assessed. How many radio collars have been attached to the endangered species being impacted by the OT Mine? How is poaching of endangered species (encouraged by relatively rich mineworkers) being monitored? Are the funds available to conserve or upgrade the existing conservation units and areas needed for offsets to compensate for OTs impacts on biodiversity? These are rapidly becoming unknowable, and some already are impossible to know.

2. Analysis of Alternatives

The Analysis of Alternatives is mandated by IFC's PS1: *For Greenfield developments or large expansions with specifically identified physical elements, aspects, and facilities that are likely to generate potential significant environmental or social impacts, the client will conduct a comprehensive Environmental and Social Impact Assessment, including an examination of alternatives (Para 11).* Alternatives can be analyzed during the design phase, but not when the design decided upon has already been constructed. For example, if Rio Tinto wanted to follow best practice and become carbon neutral, then it would scrutinize the alternative of solar power.

3. Consultation

PS1 Para 30 mandates that effective consultation should begin early in the process of identification of environmental and social risks and impacts and continue on an ongoing basis. In this case, the consultation is far too late to influence project design

4. Vulnerable Nomads

Defined as dependent on unique natural resources, such as nomadic herding. *Where individuals or groups are identified as disadvantaged or vulnerable, the client will propose and implement differentiated measures so that adverse impacts do not fall disproportionately on them and they are not disadvantaged in sharing development benefits and opportunities PS1, Para 12).* Most commendably, Rio Tinto's chief Anthropologist Chris Anderson, announced (Sept 26, 2012) at Oxfam's FPIC conference in Washington DC that Rio Tinto prefers to base Indigenous Peoples definition on attachment to land. OT's nomadic herders are strongly attached to the land in many complicated ways. Summer pasture and its rotation and access to water is a big factor, hay collection and storage near water sources for the harsh winters is in different places. Home gardens which provide vegetables have to be sited in different areas where access, water,

climate and soil fertility permit. Any feature which prolongs nomadic movements hampers the already precarious yet complex livelihoods of the nomads. Busy rail and road transport are such negative impacts.

The main communities impacted by OT are traditional nomadic herders who identify themselves as distinct from the majority of Mongolians. The main impacts on these Indigenous Peoples is likely to be significant and already includes such impacts as dust and pollution harming the grazing, exacerbation respiratory disease which already is high, less water availability for their herds, construction and operation of roads and rails hampering transhumance. Disagreements between OT mineworkers and vulnerable nomads also seem likely. Any contact between poor, uneducated nomads and rich savvy mineworkers is fraught (See note on Health Impact Assessment below).

Kudos to IFC for officially adopting FPIC in certain cases, especially as the rest of the World Bank still refuses to follow IFCs lead. IFC's Performance Standard 7 should be triggered because the vulnerable nomadic herder/pastoralists minority identify themselves as vulnerable minorities. IFC's self-appointed capacity to declare who is, and who is not indigenous, is a big problem and totally contrary to the notion of self-identification which underpins the indigenous and tribal peoples rights framework. It is unconscionable for the IFC to unilaterally rule that these people are not worthy to be treated under PS 7, and without any justification or explanation. If IFC was very knowledgeable about Indigenous Peoples, such a unilateral fiat might be understandable, but in fact IFC's record with impacted Indigenous Peoples already is unacceptable; witness the killings and martial law at IFC's Yanacocha and Conga mines in Peru, and with the IFC-financed Marlin mine in Guatemala.¹ By unilaterally ruling that OT's nomadic herders do not trigger PS 7, IFC have authorized force to be used to get the nomads out of the way of the mine against their consent. In fact, forced evictions of nomads may have started in 2004.² IFC's ruling means that Rio Tinto and Ivanhoe corporations now have IFC's permission to use force to remove nomads by involuntary resettlement against the wishes of the nomads. One can only hope this extraordinary and unexplained decision does not turn out to be similar to when the World Bank similarly ruled in 2001 that the many Tibetan ethnic minorities impacted by the China Western Region Project would not trigger the Bank's ethnic minority policy (OD 4.20) leading to the fiercest controversy the Bank ever knew. The Inter-American Court has ruled that projects with major impacts on groups who have

¹ It seems to be an open question as to how much importance IFC attaches to communities impacted by their financing of mines worldwide. For example, IFC invests in Lonmin, owners of the Marikana platinum mine in South Africa. That August 16, 2012 massacre left 47 miners killed by the military police, most of the victims were shot in the back, and more than 78 were wounded. The massacre halted mining operations for six weeks, yet IFC does not seem to be divesting itself from Lonmin. Ironically, IFC was supposed to bolster Lonmin's community development, in which it has "global expertise and a track record" according to Lonmin. Lonmin recently won the Green mining and Green star awards, as well as five more IFC awards. Another IFC investment, AngloGold Ashanti held a strike at their Kopanang Gold mine, also in South Africa.

² For example, 11 families were ordered to resettle and were therefore coerced into signing contracts that are so biased they would almost certainly be illegal under US law. Possibly, the company is now no longer "resettling" the nomads when taking their pasture land, but is instead manipulating them to sign inadequate compensation agreements. If they were recognized as IPs, they would also have more rights to land-based compensation

social, economic and cultural characteristics similar to indigenous peoples should trigger the requirement to obtain consent and this is essential to safeguard their livelihood rights and their cultural identity.

5. Greenhouse Gas Emissions

PS1 Para 7: *The risks and impacts identification process will consider the emissions of greenhouse gases, the relevant risks associated with a changing climate and the adaptation opportunities, and potential transboundary effects, such as pollution of air, or use or pollution of international waterways.* This chapter omits prevention and minimization of GHG emissions. Construction and operation of the mine clearly will lead to substantial GHG emissions from diesel and the 450 MW coal plant. Nowhere is it mentioned if the proponent has a “Carbon Neutral Corporate Policy.” As Saxaul forest (*Haloxylon ammodendron*, Amaranthaceae) within the 70 km water pipeline corridor is being destroyed because of construction, carbon neutrality will be even less likely.

6. Water Diversion and Water Pollution

Oyu Tolgoi will use approximately 243 gallons of water a second. A number of surface rivers will be diverted and water will be abstracted for the OT mine, which will deny traditional water use to the nomads. Rio Tinto says it is committed to having a “zero impact on community water sources.” “The water source for Oyu Tolgoi is the Gunii Hooloi aquifer - a deep, non-drinkable water source that is separate from the shallow water sources used by households and animals,” the company states on its website. “Oyu Tolgoi is only allowed to use approximately 20 per cent of the water from Gunii Hooloi, so the aquifer can never be exhausted. We do not need to take water from any other source.” The nomadic herders are skeptical, and have already experienced problems with their wells drying up. Importantly, the company never mentions where its workers will get water and how that will also have “no impact” on community water sources.

There is a substantial risk of acid rock drainage from the OT mine from tailings storage facilities and from any overburden or waste rock stored on the surface and not deposited back into the mine, which would be good practice. Acid rock drainage also is a risk from the coal mine, coal plant and coal transport corridors.

7. River Diversion and Transboundary Impacts

Coal burning needs much water especially for cooling etc. As the Gobi Desert is so dry, the coal plant associated with the OT mine may compete with humans and their livestock for dwindling supplies of water. Approximately 240,000 cubic meters/day of water is required for existing and near term mining and mineral processing in Southern Gobi. Whereas the present total water consumption for rural/urban and livestock is only 40,000 cubic meters/day. A major issue is the extent to which nomad’s wells and watering points will have to compete with the OT Mine. Pasture is being reduced in area and in nutritional quality, pasture and watering sites are separated by road and rail. The distance between

pasture and watering sites is critical as some livestock have to be watered twice a day. These impacts are not referred to in Chapter D1. A Detailed SIA (DSIA) is needed to assess the relative impacts of water abstraction from aquifers. What are the relationships or connectedness of saline and fresh water? What is the extent to which artesian fresh water wells will be impacted? What are the relationships between deep aquifers and shallow aquifers? OT says it will relocate the Bor-Ovoo spring, which is located within the diversion zone and close to the open pit mine. But the ESIA does not include analysis of how this will take place or what the impacts will be on downstream users. Also excluded is the important mitigation plan.

Downstream riparians have to be informed if an upstream riparian will impact the river. Permission is best; a “no-objection” is acceptable. As OT may impact Lake Baikal (although the ESIA may not admit this), the ESIA should state the current status of informing Russia and Siberia. The 120 km-long Undai River is the only source of surface water in the entire area, and it flows through the mining license area. Much, if not most Undai river flows may be underground with surface flows only during the ‘wet’ season. OT mentions the impact of the Undai River diversion in the ESIA in Chapter C5 under surface water diversions (ot.mn/sites/default/files/documents/ESIA_OT_C5_Water_EN.pdf). Impacts on the 6.8 km section of the Undai River where it crosses Oyu Tolgoi’s open pit mine and waste rock dump need to be prevented or mitigated. OT has been requested for a specific DEIA for the Undai River diversion, but none has been forthcoming.

8. Cumulative Impact Assessment

OT’s ESIA mandatory Cumulative Impacts should mention the hydropower, other mining projects and other river diversions planned in Mongolia. For example, EBRD is lending \$35M for the Tsagaan Suvraga copper/gold mine less than 200 km north east of OT. And there is another high potential major mine site 40 kms North of the OT mine will add to the cumulative demands on these deep aquifers. The Government of Mongolia is also planning on diverting two rivers, the Orkhon and the Kherlen Rivers, in order to provide water to all of the mining projects in the South Gobi.³ The longest river in Mongolia, the Orkhon River is a tributary of the c.1000 km Selenga River, which is the main tributary of Lake Baikal in Russia. The Kherlen River flows into the Sangiin Dalai Lake in Inner Mongolia, China. Both Lake Baikal and Lake Dalai are protected under national legislations as well as under the United Nations Ramsar Convention. Impacts on these tributaries could violate the UN Ramsar Convention. Exclusion of assessment of impacts on the two UN Ramsar sites in Chapter C5 is noncompliance.

9. Health Impact Assessment

Health Impact Assessment, standard practice in better mining corporations worldwide is one of the better-handled priorities.⁴ This ESIA needs to state what precautionary measures will be financed, plus

³ Note that this is a GoM plan in which OT has not confirmed its participation.

⁴ See: Birley, Martin, 2011. Health Impact Assessment: Principles and Practice. Routedledge 400 pp. [and] Paul R. Epstein,

budgets and responsibilities. Standard health risks in many mines include drugs, prostitution, HIV/AIDS, alcoholism etc. Dust (sulfides, mercury) is likely to be a major impact both inside the mine and coal workings, as well as downwind of power line corridors, roads and rail. No mention seen about covering all coal and ore trucks and wagons, or spraying to reduce dust. As some transportation corridors may bear 4000 trucks or wagons a day, noise and dust impacts and traffic accidents involving humans, flocks and wildlife will be substantial. The September 3, 2012 roadblock to protest the impacts of unpaved mining roads in Umnigovi (South Gobi) province from Tsogtsetsii to the Chinese border at Tsagaan Khad suggests social unrest and that that OT's policy of zero harm is not being met.

10. Impact/Benefit Agreement, or Impact/Compensation Contract

The second half of this Chapter (aprox. pages 16-32) deals with changes, classification of change, change management, reporting, notification, non-conformance etc. What is expected in this Chapter is taking each unavoidable impact in turn, how will it be minimized or compensated for. This is lacking in this Chapter, hence diverges significantly from standard ESIA practice. This Chapter should form the basis of the Impact/Compensation Contract (ICC) or Impact/Benefit Agreement (IBA), namely precisely how any residual or unmitigable impacts are to be compensated for. This seems to be absent, although Canada's Ivanhoe Mining Corporation, the second biggest shareholder in the OT mine, knows this well: "A new wave of co-operation between Aboriginal peoples and the mineral industry can be felt across Canada. It is evidenced by the growing number of impact and benefit agreements that are created every month. Gone are most of the adversarial relationships between mining and Aboriginals in favour of participation and sharing", according to the *Canadian Mining Journal's* Daily News March 28 2010. Benefits/impact agreements are becoming the norm.

Jonathan J. Buonocore, Kevin Eckerle, Hendryx, Benjamin M. Stout III, Richard Heinberg, Richard W. Clapp, Beverly May, Nancy L. Reinhart, Melissa M. Ahern, Samir K. Doshi, and Leslie Glustrom. 2011 . Full cost accounting for the life cycle of coal. *Ann. N.Y. Acad. Sci.* 1219: 73–98.