

Reply to Oyu Tolgoi, LLC and the International Finance Corporation

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Prepared by:
Oyu Tolgoi Watch
Accountability Counsel
Bank Information Center
CEE Bankwatch
London Mining Network
Sierra Club
Urgewald

We appreciate the opportunity to respond to comments from Oyu Tolgoi, LLC (“OT LLC” or the “Company”) regarding our November 2012 review of the Environmental and Social Impact Assessment (“ESIA”) for the Oyu Tolgoi copper and gold mine (the “Project”). OT LLC responded to those comments on December 17, 2012 (“OT Response”). Additionally, the International Finance Corporation (“IFC”) responded to our review on February 19, 2013 (“IFC Response”). The following is a brief reply to both the OT Response and the IFC Response, focusing on our keys points of concern.¹

1. Content and Timing of the ESIA: the ESIA is incomplete and retroactive

The OT Response fails to address our primary concern that not only was the ESIA published too late to be considered an effective planning document for the construction phase of the Project, but that the missing management plans would also make the ESIA retroactive for the operations phase of the Project.

ESIAs are meant to serve as due diligence documents that provide an opportunity for stakeholder input, which is then incorporated into project planning. To be an effective planning document, an ESIA must be published and vetted before significant work on a project has begun. Yet, this ESIA was not published until construction of the Project was over 94% complete, making much of the ESIA retroactive. The apparent justification for this failure found in the IFC Response, that the ESIA was preceded by 19 earlier detailed environmental impacts assessment, merely begs the question of why the current ESIA was not more complete and robust, considering all of the previous due diligence that had already been done. Even worse, the operations management plans are far overdue. In particular, the ESIA is missing waste rock and tailings management plans, closure plans and reclamation plans, all of which constitute integral components of the ESIA, which cannot be considered complete without them.²

¹ The organization of our reply follows that of the OT Response, although for the sake of clarity, we have renumbered our points, as we are not addressing all of the issues raised in the OT Response or the IFC Response.

² While we could perhaps forgive the fact that the closure plan is still in preparation, we observe that no developed regulatory system utilizing ESIAs would allow the failure to include and consult on operations management plans.

Neither the OT Response nor the IFC Response gives a timeline for when we can expect the missing plans to be publicly available.³ Nor do they provide any justification for the failure to release the plans in a timely manner that would have enabled them to serve their purpose as planning documents. Contrary to the implication in the OT Response, there is nothing about the “complex phased nature” of this Project that would prevent OT LLC from providing details about how it plans to manage mining wastes, including waste rock and tailings. The Company’s commitment to making the plans available on its website once they have been approved by the lenders does not address our concern regarding the timing of these documents. Strip mining and ore processing operations have already commenced,⁴ yet the public still has not had a chance to review and comment on key aspects of the operations phase, such as how the Company will manage tailings and waste rock.

Additionally, the claim in the OT Response that the ESIA sets out mitigation strategies for “the full life of the mine” is misleading. Based on a meeting with the European Bank for Reconstruction and Development (“EBRD”) project team and OT LLC, it is our understanding that the Project was defined in the ESIA as the extraction of 100,000 tons of ore per day (“tpd”) for 25 years.⁵ Yet, the Company currently has plans to increase the extraction rate⁶ and is publicly speaking about operating the mine for 50-100 years.⁷ When asked about this discrepancy in relation to water availability beyond the 25-year “life” of the Project as defined in the ESIA, the EBRD project team admitted that the availability of water beyond that period was not addressed in the ESIA or other due diligence documents. This is a stark example of the fact that the ESIA does not address fully the impacts and mitigation strategies for the mine, because the Project in the ESIA is artificially defined and fails to take into account the actual planned rate of extraction and projected lifetime of the mine.

Finally, regarding the power supply for the Project, even if the Company has a secured power for the first four years of commercial production, it will subsequently need to source power from Mongolia. Given that the Project will not be able to operate without this Mongolian-based power, it is unacceptable that the IFC will approve the project based on an ESIA that does not include a full analysis of the combined impacts of the mine and the power source (be that a coal plant, the grid, or any other option). OT LLC’s commitment in its Response to providing updates on its review of these options does not meet the basic due diligence requirements of IFC Performance Standard 1. To meet IFC Performance Standard 1, a complete ESIA must be conducted that includes the cumulative environmental and social impacts of the mine and the power plant for the duration of the

³ The need for access to these management plans is especially important given that reports from the field state that a leakage from the tailings dam occurred and the company is working on fortifying the walls of the dam.

⁴ See Turquoise Hill Resources Ltd., Press Release, *Oyu Tolgoi produces first concentrate* (Jan. 31, 2013), available at: http://www.turquoisehill.com/s/news_releases.asp?ReportID=568642; OT LLC, Press Release, *Oyu Tolgoi announces production of first batch of copper concentrate* (Feb. 1, 2013), available at: <http://ot.mn/en/node/3838>.

⁵ We note that there appears to be some confusion about the proposed “life” of the Project, even for the purposes of this ESIA. The EBRD team indicated that the life of the Project was 25 years, but the ESIA indicates that it is 27 years. See OT ESIA, Chapter A4, p. 5, http://ot.mn/sites/default/files/documents/ESIA_OT_A4_PD_EN.pdf.

⁶ See *id.* (“Oyu Tolgoi is exploring an expansion to the plant to process up to 160,000 tpd of ore within the 27-year life of the Project. This expansion is subject to any necessary regulatory approvals and the identification and permitting of additional water resource requirements to provide the increased processing capacity.”).

⁷ See, e.g., Stephen McDonnell, *Rio set to open mammoth Mongolian mine*, Australian Broadcasting Corporation (Feb. 15, 2013) (Quoting Cameron McRae, Rio Tinto’s Mongolia country director, as stating “Some of the more optimistic geologists that we have say that this business could run for up to 100 years,” and “Those more conservatively say, you know, 50 years plus.”), available at: <http://www.abc.net.au/news/2012-11-20/rio-to-open-mammoth-mongolian-mine/4381178>.

project's life. In particular, the water impacts and needs of both the mine and the power plant must be analyzed together.

Moreover, despite the OT LLC's assertion that "[a]ny new significant facilities that Oyu Tolgoi decides to build (such as an on-site power plant and long-term worker housing) will require a supplemental ESIA," the IFC is required to apply the guidance on Criteria for Screening Coal Projects under the World Bank Strategic Framework for Development and Climate Change (Coal Guidance) to any coal-fired power station built to support the mine. This includes appointing an expert panel to ensure that the analysis is in compliance with the IFC Performance Standards and the Coal Guidance.

2. Affected Communities and Vulnerable Populations

2.1 The nomadic herders of the South Gobi should be classified as indigenous peoples

The OT Response refuses to undertake any legitimate consideration of whether the IFC Performance Standard 7 on Indigenous Peoples applies to this Project. Instead, the OT Response erroneously focuses on the false assertion that the herders affected by the Project do not identify as indigenous and on a misunderstanding of indigenous peoples as minority groups.

We agree with the OT Response that self-identification is an important aspect of the definition of indigenous peoples. However, the Company's assertion that the herders do not self-identify as indigenous does not hold weight. An affected Mongolian herder traveled to Washington, D.C. in January 2013 to speak at a World Bank Board Seminar on the Project, and in his presentation, he specifically identified himself as indigenous to the land and as the carrier of an ancient culture. He discussed his special relationship with the natural resources available in the South Gobi, as well as the fact that his traditional, nomadic lifestyle, practiced first by his ancestors, will be destroyed by this Project. OT LLC's insistence that the affected herders do not identify as indigenous is unfounded.

The OT Response backs up its false assertion that the affected herders do not self-identify as indigenous by stating that they "would likely be offended to be labeled as a minority group." This statement misunderstands both our comments and the concept of indigenous peoples. Being a "minority group" within a country is not a requirement under IFC Performance Standard 7. Yet, the OT Response's main support for why the affected herders should not be considered indigenous under Performance Standard 7 hinges on its argument that the herders of the South Gobi do not belong to a minority group.

The remainder of the OT Response merely asserts that the various characteristics that make up the Performance Standard's definition of "Indigenous Peoples" are "NOT APPLICABLE" or only "PARTIALLY APPLICABLE," without revealing any of the Company's reasoning. The Response also explains that the Company relied on advice from the Asian Development Bank when it classified the impacted herders as non-indigenous. This reliance and simple dismissal of the Performance Standard violates the IFC Standards and Guidelines. The Guidelines clearly require the project developer to initiate its own investigation of whether affected communities should be considered indigenous for purposes of applying Performance Standard 7. Note 8 of Guidance Note

7 lists research the client could undertake and states “[t]he client should retain competent experts to assist with this work.”

We are surprised and concerned with what appears to be the Company’s lack of commitment to truly investigate what should, at the very least, be a complicated and nuanced question. We believe that the Company’s failure to even seriously investigate the question of whether the nomadic herders are indigenous contradicts Rio Tinto’s own standards, in particular its newly published human rights resource guide.⁸

We urge OT LLC to hire independent experts to determine whether the IFC Indigenous Peoples Performance Standard should apply to the affected herders. The IFC should separately re-evaluate its previous statements regarding the applicability of Performance Standard 7, taking into account the results of the social scientists’ evaluation.

2.2 The stakeholder consultation process is flawed and cannot prove broad community support for the Project

Rather than addressing our detailed explanation of why consultations with herders to date have been inadequate, the OT Response simply lists which stakeholders it has engaged with throughout the Project’s development. Yet, our comments did not claim that the Company had failed to engage with affected herders, but instead focused on OT LLC’s failure to ensure that its engagement is culturally appropriate and designed to elicit candid responses. The IFC Response at least references what the IFC considers to be participatory mechanisms used in the Company’s consultations. Nonetheless, both responses fundamentally fail to address the specific concerns we raised in our comments, such as the failure to provide relevant documents prior to consultations and the fact that the Company’s “consultations” are often more presentations of what the Company has already done or intends to do, rather than in-depth, participatory discussions about the needs and concerns of the herders and soum center residents.

Moreover, the OT Response’s claim that OT LLC has engaged in a high frequency of consultation, with high numbers of people reached, is not necessarily the same as participatory consultation that allows community concerns to feed into the design of the Project and related mitigation and compensation schemes. Herders should be presented with concrete, accurate information on a regular basis (at least monthly) about all project impacts – particularly those that present significant risks to the herders, such as the diversion of the Undai River and health risks from project-related water, air, and soil contamination – in a way that is culturally appropriate. The herders’ opinions should also be integrated into all mitigation plans.

Similarly, the OT Response fails to indicate on what basis it determined that the Project enjoys broad community support, giving the growing opposition to the Project described in our comments.⁹

⁸ Rio Tinto, *Why human rights matter: A resource guide for integrating human rights into the Communities and Social Performance work at Rio Tinto* (Jan. 2013), available at:

http://www.riotinto.com/documents/ReportsPublications/Rio_Tinto_human_rights_guide_-_English_version.pdf.

⁹ We note, for example, that in February 2013, a second complaint about the Project was filed with the IFC’s Compliance Advisor / Ombudsman (“CAO”) and found eligible for assessment. This complaint, which comes on top of the first complaint regarding inadequate compensation, was made by dozens of herders concerned that the Undai River diversion will dry up the wells and natural

2.3 The Project's Resettlement Action Plan and related compensation contracts are inadequate and destroying the affected communities' livelihoods

The OT Response regarding problems with the resettlement and economic displacement compensation programs does not engage with any of the concrete issues raised in our comments. For example, while the OT Response asserts that none of the herders were "forced" to sign the 2004 resettlement contract or the recent compensation contracts, it utterly fails to respond to our descriptions of the coercive practices that were used to get some herders to sign the contracts.

Rather than engaging with the specifics of our comments, the OT Response attempts to minimize problems by claiming that there are only a "small number of cases" in which people have "some dissatisfaction" with their compensation. This ignores entirely the CAO complaint filed in October 2012 regarding problems with both the resettlement contract and the more recent economic displacement contracts, as well as the fact that when the CAO made its first visit to the South Gobi to assess the complaint in December 2012, many additional herders came forward wanting to join the complaint.

What is particularly discouraging about the OT Response is its failure to acknowledge even the significant outstanding issues regarding compensation of the affected herders to which the Company has admitted in other settings. For example, in a January 2013 meeting with the EBRD and OT LLC, we discussed the fact that affected herders still do not understand whether, and if so how, they are being compensated for impacts to their summer and reserve pastures. The EBRD project team admitted that OT LLC had originally failed to identify all people impacted by loss of pastureland related to the Project and said that they had been critical about the delays in implementing plans that were meant to compensate for those impacts. OT LLC acknowledged these concerns and the fact that they may need to communicate better about these issues. Yet, the OT Response does not even indicate that these types of problems remain.

Moreover, the focus of both the OT Response and the IFC Response on the Compensation Working Group fails to acknowledge that the Working Group itself has been a source of complaint. Specifically, herders have been concerned that they were a minority in the Group and were at a disadvantage in terms of being able to articulate their concerns. The Group suffered from a power imbalance and an asymmetry of information. Moreover, herder culture is highly independent and self-sufficient; the herders are not accustomed to having key decisions about their livelihoods made by a small number of representatives. Thus, the Compensation Working Group was not a culturally appropriate way to deal with issues of compensation.¹⁰

The company should develop an agreed-upon and tested methodology for evaluating all of the impacts on herders, including decreased quality and quantity of pastures and water resources, and health impacts on herders and their animals. This methodology should then be applied transparently and consistently to all impacted households, including those whose summer and reserve pastures

springs on which they and their livestock rely. Recent reports from the ground indicate that 6 out of 11 natural springs in the area have already gone dry.

¹⁰ We note that the OT Response acknowledged that the Group has not met since mid-2012. We do not believe that it should be reactivated in the future, due to the problems described above.

have been eliminated or degraded by the project and its associated facilities. To date, the company's compensation framework, including the 2004 resettlement contracts and the recent economic displacement contracts, does not take into account the realities of the herders' livelihoods, in particular by failing to adequately compensate for the loss in quality and quantity of the herders' water resources and pastures, including the summer and reserve pastures, which are the most important to the herders.

2.4 The Health Impact Assessment does not fully address concerns related to mine operations or dust pollution

The OT Response regarding community health is does not say anything regarding one of our key concerns, which is that the dust monitoring discussed in the ESIA does not include any monitoring locations in the direction of the Khanbogd soum. Moreover, the air pollution sections of the ESIA are grossly inadequate, in that they do not indicate wind direction or duration. It is difficult to understand how the Company can assert that dust will not cause nuisance or negative health impacts when it is not even monitoring dust blowing in the direction of the population center and the ESIA is missing vital information regarding the wind patterns in the region. Moreover, the OT Response continues the problem described above regarding the incomplete and retroactive nature of the ESIA by referring to the unavailable operational management plans in response to our concerns about the community health, safety and security impacts of mine operations, decommissioning and closure.

Additionally, although we did not raise this issue in our original comments, we are concerned about the health risk associated with high levels of arsenic in wells in the region. Recent research indicating high levels of arsenic in wells to the east of Oyu Tolgoi¹¹ merits independent scrutiny, given the water needs caused by the project-related population influx and the Undai River diversion¹² and the critical public health issue raised by high arsenic levels.

3. Water Resource Management

3.1 The ESIA fails to establish that water abstraction from the Gunii Hooloi aquifer will not impact other water resources in the area

The OT Response admits that the ESIA shows some connectivity between the deep aquifers to be used by the Project and the shallow aquifers used by herders and wildlife, yet maintains that we should be satisfied by OT LLC's commitment to monitor wells. Yet, the OT Response does not address the concerns raised in our comments regarding the leakage between aquifers that may already be occurring at one, and possibly more,¹³ of the boreholes, nor the wells along the Gunii Hooloi pipeline that have already dried up. Moreover, while the ESIA does indicate that leaking boreholes will be sealed and abandoned, rehabilitated or converted,¹⁴ we are concerned that such

¹¹ Purevdorj B. Olkhanud , *Survey of Arsenic in Drinking Water in the Southern Gobi region of Mongolia, MPH Capstone Project*, School of Public Health, John Hopkins University, Baltimore (May 2012) (on file with London Mining Network).

¹² See OT ESIA, Chapter C13, pp. 8-9, 23, available at:

http://ot.mn/sites/default/files/documents/ESIA_OT_C13_Cumulative_impact_EN.pdf.

¹³ Conversations with the Company have indicated that four additional boreholes have shown signs of leaking and have since been sealed off.

¹⁴ See OT ESIA, Chapter D7, p. 14, available at:

http://ot.mn/sites/default/files/documents/ESIA_OT_D7_Water_Resources_Management_Plan_EN.pdf.

measures may be too late. Groundwater drainage from any upper aquifer zones might not be detected until after substantial depletion of these aquifers has occurred. Once depleted, these upper aquifer zones would require decades to recharge.

In addition, the OT Response fails to address the lack of publicly available evidence to back up its claims that shallow aquifers will not be impacted. The Company should disclose on its website all documentation cited in the ESIA related to water resources. In particular, it should substantiate its claims that water abstraction from the Gunii Hooloi deep aquifer will not cause a draw-down effect due to leaking boreholes, instability and the rate of pumping, which would deplete the shallow aquifers upon which the herders and wildlife depend.

The IFC Response also fails to address our concern that water abstraction from the Gunii Hooloi aquifer may deplete the shallow aquifers.

3.2 The Undai River Diversion

We appreciate that OT LLC has now made the Detailed Environmental Impact Assessment (“DEIA”) for the Undai River diversion publicly available.¹⁵ We are concerned, however, that the DEIA does not adequately address key concerns regarding the diversion project, in particular, the loss of the Bor Ovoo spring. The Company should stop all work on the Undai River diversion, which has moved forward without appropriate consultation with herders.

The Undai River diversion is seriously problematic for the herders and wildlife that depend on the Undai River’s particular location, temperature, water quality and flow rate. The same can be said for the “relocation” of the Bor Ovoo spring. Both of these water features have been part of the landscape for many generations of herders and other species alike, and the flora and fauna surveys conducted by OT LLC show clear evidence of high usage.

OT LLC states that the impacts of the water diversion and spring relocation will be definite for the water resources, the flora & the wildlife. See Tables below from the Oyu Tolgoi LLC Undai River Protection and Partial Diversion Project Detailed Environmental Impact Assessment (2012) (“Undai DEIA”).¹⁶

¹⁵ We would like to note that the tailings dam sits on the most important tributary of the Undai River, which should also have been diverted according to EBRD staff during our January 2013 meeting. We would like to see the report of that diversion and a cumulative impact assessment.

¹⁶ Available at: http://ot.mn/sites/default/files/reports/Detailed_EIA_Oyu_Tolgoi_Undai_River_Protection_2012_EN.pdf.

TABLE 16. RISK RANKING OF POTENTIAL IMPACTS ON WATER RESOURCES

Potential impacts	Consequence	Likelihood	Risk ranking
Loss of Bor oboo spring.	Local impact	Almost certain	H
Interruptions or restriction on the base flow in the wells and springs south of licence area (downstream of diversion), eg Khukh Khad, Maanit and Burkhant Springs	Local impact	Possible	H
PAF or sediment laden water run-off occurring from the WRD into the Undai River diversion	Local impact	Unlikely	L
Hydrocarbon spills during construction leading to contamination of water resources.	Local impact	Unlikely	L
Groundwater level will decrease around the area including diversion dam to reprovisioned Bor oboo spring and dry excessively	Local impact	Almost certain	H

TABLE 21. RISK RANKING OF POTENTIAL IMPACTS ON VEGETATION

Impact	Consequence	Likelihood	Risk Ranking
Loss of vegetation associated with surface water features, including Bor Oboo Spring and vegetation communities associated with the temporary flow of the diverted section of the Undai River with 1.5 ha	Local impact	Almost certain	H

TABLE 27. RISK RANKING OF POTENTIAL IMPACTS ON FAUNA

Impact	Consequence	Likelihood	Risk Ranking
Destroy wildlife water point and wildlife habitat to be changed	Local impact	Almost certain	M
Elm trees might be destroyed and breeding location for several carnivorous birds to be changed	Local impact	Possible	M
Soil disturbance within project area may impact on insect habitat	Local impact	Almost certain	M

Each of these risks is serious, yet the mitigation offered is minimal:

Diversion dam and channel should be constructed under the following requirement. Herein:

- Diversion channel and river crossing should be designed to accommodate the maximum surface runoff
- Bottom gradient of western channel should be approximate to the bottom gradient of both Undai river watercourse and downstream watercourse
- Soil particles can be transferred and accumulated inside diversion channel by wind effect which may decrease the surface runoff potential. Therefore, rehabilitate the riversides after the construction of river diversion facilities.
- Ensure not to lost seepage through the dam wall
- Ensure not to destroy the upstream sediments along Undai river
- Upstream adjacent sediments and through the strata surrounding the diversion channel are minimized.

These mitigations measures are in no way sufficiently detailed for anyone actually charged with the task of carrying out the diversion and spring relocation to do it properly. The IFC Response is extremely misleading to the extent that it claims that these measures are evidence of detailed, technical responses to this highly sophisticated (many scientists would say impossible) hydrological feat. For example, what does “rehabilitate the riversides” mean? With vegetation? With machinery? Also, how should the employees on the ground ensure that upstream sediments are not destroyed? What does it mean to “destroy sediment”?

In summary, although the Undai DEIA is exclusively for the water projects, it fails to offer adequate detail about how the projects will be carried out without severe and permanent damage to the water resources and the flora and wildlife dependent upon those water resources. Thus, while we are pleased that the IFC Response includes a commitment to track the performance of the Undai diversion and the relocation of the Bor Owoo, such a response is insufficient to prevent severe and permanent damage. We therefore continue to believe that the Company should respect the rights of the local herders to protect a vital source of water by stopping the diversion project.¹⁷

3.3 The decision to use wet tailings rather than dry tailings increases the potential environmental and social hazards of the Project dramatically

The OT Response fails to explain the Company’s reasoning for using wet tailings, despite concerns we raised regarding leaching and water usage. OT LLC also failed to commit to the release of the

¹⁷ We note again, as explained above, that the diversion project is the subject of a second CAO complaint, filed in February 2013. Moreover, we note that the Undai River diversion is argued as necessary because a section of it occupies space planned to be occupied by waste rock storage and affected by open-pit mining. We note that ESIA, Chapter A4 states an indicated open-pit phase plan [figs 4.7 & 4.8 pp 17-18/77] and it states 127 Mt proven resources and 828 Mt probable resources of copper [4.3 tab 4.1 citing IDP 2010 tab 2.1.2]. We also note that IDOP 2012 [tab 1.2, p36/513] gives 102Mt measured, 465 Mt indicated and 88Mt inferred resources of copper. We believe, therefore, that it is reasonable to conclude that less total volume of ore/rock will be excavated. We therefore want to know how this will affect both the area taken by open-pit mining and the area that is subject to impact from it. When this is considered with our strong assertion that dry tailings treatment would decrease land-take, we believe that it may not be necessary to divert the Undai River. We question why this was not evaluated in the ESIA and the Undai DEIA.

reports relied on in making this decision, as requested, yet continued to cite a non-public report to justify its decision. In other words, the OT Response provided no further justification for OT LLC's decision to use wet tailings.

To the extent that the OT Response appears to indicate that the Company rejected dry tailings because of dust, this was not explained in the ESIA and is not valid, as dust generation can be reduced to a negligible risk either by the addition of binders (e.g. cement) to the tailings or co-disposal of tailings and waste.

The IFC Response is no better and appears to suffer from a lack of understanding of the issue at hand. Specifically, it is truly a concern that, even at this late stage, the IFC has an inadequate understanding about the differences between: 1) thickened tailings, which have a solids content of between 60-65%; 2) paste tailings, which have a solids content of between 70-78%; and 3) dry filtered tailings, which have a solids content of greater than 80%. Contrary to the IFC Response, the Project will *not* be generating and disposing of paste tailings, as is clearly indicated in the ESIA.¹⁸ Unlike thickened tailings, paste tailings *do not* separate into a solid and liquid fraction upon being deposited. According to the ESIA, such separation will clearly happen with the tailings OT is generating.¹⁹ It is also a display of IFC's lack of understanding of mining wastes to imply there is anything benevolent about OT's choice to employ 'dry storage for overburden/waste rock.' Overburden and waste rock are materials that never come in contact with process water, so "dry storage" of these wastes is simply an inherent aspect of a mining project.

The IFC Response also argues that dry stack tailings would be a risky choice for this Project because of the cold and arid climate. The IFC should acknowledge that mining companies have historically chosen not to employ paste tailings or dry tailings disposal options because of the cheaper capital costs associated with the option of wet thickened tailings disposal. The IFC should also acknowledge that OT has not demonstrated the infeasibility of paste tailings or dry tailings disposal for the project in any technical document it has been willing to share with stakeholders. Furthermore there is evidence in other technical documents that OT's choice of tailings disposal options is driven by capital costs.²⁰

¹⁸ See OT ESIA, Chapter A4, p. 31 ("Flotation tailings will be thickened to between 60% and 65% solids in two 80 m diameter tailings thickeners. The thickener rakes, which are designed for winter operation, will be traction driven. Thickened tailings will be pumped through two tailings lines to a booster pump station near the tailings storage facility (TSF). The tailings lines will follow a graded corridor to allow the tailings lines to drain into the booster pump box if operations are interrupted. Two two-stage booster pump lines will distribute tailings around the TSF. Excess water ponding on the surface of the TSF will be collected and pumped to the processing plant for reuse."), available at: http://ot.mn/sites/default/files/documents/ESIA_OT_A4_PD_EN.pdf.

¹⁹ See *id.* at p. 33 ("The tailings will be deposited at a slurry solids content of 64% by weight from the western embankment into each sub-cell for approximately 1.5 months in turn. The berms will contain the active tailings beach to one sub-cell. Deposition in each sub-cell will occur approximately twice per year. The purpose of this arrangement is to minimize the area of fresh tailings beach, thereby limiting the water losses to evaporation.")

²⁰ See Ivanhoe Mines Ltd., *Oyu Tolgoi Project: Technical Report*, pp. 455-56 (Jun. 2010) ("A number of options were investigated for TSF design. These included site options studies carried out by KP and KCB and consideration of thickening to various solids contents up to a paste consistency of 70% solids. KP identified four sites designated 1-4 and the comparative study was based on 16 Mt/a at 60% and 70% solids and a total capacity of 352 Mt. These sites are shown in Figure 23.11.1. Golder Associates looked at a paste option, thickening the tailings up to 70% solids. It was found that the capital and operating costs were high compared with the reduced cost associated with the reduction of water usage."), available at: http://www.turquoisehill.com/i/pdf/IDP10_June062010.PDF.

There are examples of mining companies which have used or committed to use the dry stack tailings disposal option in very cold climates (the Greens Creek lead-zinc-silver-gold mine operated by Hecla Mining in Alaska), very arid climates (the La Copia mine operated by Kinross in Chile), and for very large projects (the Rosemont Copper mine being developed by Rosemont Copper in Arizona). There is simply no basis for the IFC to claim that large size, cold temperature or dry climate are technological barriers for OT to do something much better than thickened tailings disposal. We are concerned that this situation is a consequence of doing the ESIA after the Project had already commenced, forcing the ESIA to be a post-hoc rationalization of decisions already taken, rather than what an ESIA needs to be – an indispensable planning tool that guides the choice of design alternatives.

Barring significant justifications unrelated to cost,²¹ the Company should switch to dry tailings, as this method is well-suited for cold climates and will significantly cut the mine's water needs. In addition to the water-saving benefits, employing dry tailings would obviate the need for a wet tailings impoundment facility, thereby significantly reducing the irreversible degradation of a large land area. Dry tailings would also allow a redesign of the mine area so as to avoid destruction of the Bor Owoo spring, and the tailing could be used to backfill the open pits and underground workings, with associated environmental benefits.

4. Biodiversity: management plans and the offset strategy are unrealistic and poorly defined

The lack of available data and the fact that more information will emerge during the Project's lifetime does not excuse the Company from developing a strong, detailed, long-term plan for species conservation and habitat protection. While we appreciate that the IFC identified gaps in OT's management program, leading to the creation of a Biodiversity Action Plan, neither the OT Response nor the IFC Response does anything to elaborate on the Company's plans for improvement rangeland management or other undefined steps that the ESIA asserts will be taken to minimize impacts. Moreover, the Biodiversity Action Plan has not yet been disclosed and is not due to the IFC until the end of the year, so does not address our concerns about the current lack of detailed, long-term plans. Such a plan can be, and should have been, developed based on other mining operations so that at minimum there is a basic framework in place for monitoring and protecting wildlife.

Additionally, how the Company intends to achieve its goal of net positive impact is not well-explained in the ESIA and is not elaborated in the OT Response. This will be difficult to achieve given the extreme habitat and water losses associated with the Project and with other development in the region. The Company must devote more resources to adequately studying existing wildlife in the area and developing proactive management plans.

5. Infrastructure and Project Facilities: the coal-fired power plant should have been included in the first release of the ESIA

²¹ Given the important concerns regarding water scarcity in the South Gobi, we do not feel that the increased capital cost of dry tailings justifies the decision to use a method that will use substantially more water.

We are pleased that the IFC Response clarifies that a full ESIA for any future power plant will be disclosed prior to the start of construction. We strongly believe, however, that to meet IFC Performance Standard 1, a complete ESIA must be conducted that includes the cumulative environmental and social impacts of the mine and the power source that will be employed once the power is fully sourced from Mongolia for the full duration of the project's life. In particular, the water impacts and needs of both the mine and the power source must be analyzed together. This is especially critical if a coal-fired power station is selected, as the combined water needs of the mine and a coal plant could be disastrous over the lifetime of the project.

Additionally, the guidance on Criteria for Screening Coal Projects under the World Bank Strategic Framework for Development and Climate Change (Coal Guidance) must apply to any coal-fired power plant built as part of this project. A full alternatives analysis must be conducted that meets IFC Performance Standard 3 and Criterion 2 of the Coal Guidance, and the IFC is responsible for appointing an expert panel to ensure the quality and compliance of the alternatives analysis. If, after a thorough alternatives analysis that fulfills the requirements of both Performance Standard 3 and the Coal Guidance, it is determined that a coal plant is still the least-cost option, the IFC must consider viable, low-cost, low-carbon alternatives and seek additional funding to implement a low-carbon alternative, as required under Criterion 4 of the Coal Guidance.²²

6. Cumulative Impacts: Impacts from regional water consumption and future potential trans-boundary impacts should have been included in the ESIA

The OT Response avoids any real discussion of the cumulative water requirements of the Project, which includes induced population growth, power generation and related industrial projects. Instead, it focuses only on the requirements of the Project for non-drinkable water, stating that “all indications suggest that there are significant undiscovered groundwater resources in the South Gobi Region” and asserting that it is “beyond the scope of the ESIA to speculate on potential government-led water management and diversion projects.”

Yet, construction of water pipelines from the Kherlen or Orkhon Rivers is a reasonably foreseeable *consequence* of the Project, due to the huge population increase of the soum center *because of the Project*. The impacts of these reasonably foreseeable projects should therefore have been discussed as cumulative impacts of the OT Project in the ESIA.

7. Disclosure of Operational Management Plans and Technical Documents

7.1 The ESIA should include all Operational Management Plans, including the Waste Rock and Tailings Management Plans, the Operational Phase Water Resources Management Plan and the Mine Closure Plan

²² It should be noted that on the Oyu Tolgoi LLC website, a DEIA for a proposed coal-fired power plant still exists without any new public information that states that the company is not moving forward with the plant as outlined in this document (*available at: http://ot.mn/sites/default/files/reports/Detailed_EIA_Oyu_Tolgoi_Coal_Fired_Power_Plant_2011_EN.pdf*). This creates confusion and leads to the impression that they have already analyzed alternatives and plan to build a coal-fired power plant, especially since the DEIA states that to have an operating thermal power plant by the fourth year of commercial production, permitting must have already begun in 2012.

We appreciate OT LLC's commitment to release publicly all operations management plans in 2013. Nevertheless, we are concerned that the Boards of Directors for the EBRD and the World Bank Group are planning to consider the Project this week, despite the fact that these plans are still not publicly available. The devil is in the details for things like waste management, closure and reclamation, yet to date, the Company has not made publicly available detailed, workable and adequately funded plans to prevent environmental impacts both during operations and for decades after mining ceases, and restore the ecology of the mine site as closely as possible to pre-mining conditions. Such plans must be a precondition for commencement of any Project activities. Moreover, as discussed above, the missing plans constitute integral parts of the ESIA, and as such, should be disclosed for at least 90 days prior to the Board discussion of the Project.

7.2 All studies and reports referenced in the ESIA should be made publicly available in English and Mongolian

As explained throughout our comments to the ESIA, stakeholders are unable to understand and assess many of the Company's key claims, including adequacy of water resources, connectivity and potential drawdown between deep and shallow aquifers and decisions regarding the use of wet tailings, because the ESIA repeatedly cites reports that have not been made publicly available. Despite its stated commitment to transparency, the OT Response to our request that these reports be made available was the following:

Many of the reports reference [sic] in the ESIA are very technical in nature, and the ESIA is meant to summarize the important information in these reports so it is more suitable for the public. In addition, we received feedback from the local impacted community, our most important stakeholders, that the information in the ESIA is still too technical. Therefore, we question the value of making technical reports available to the public as it requires expertise to gain a true understanding of the contents.

OT LLC's apparent refusal to make available the reports requested by our organizations, because some members of the public may lack the expertise necessary to fully understand the reports, is unjustified and, frankly, insulting. Moreover, OT LLC's responsibility to convey information regarding the Project to the local impacted community in a non-technical, culturally appropriate manner has nothing to do with our request that the Company release all technical background documents relied on in the ESIA. We agree that it is imperative that the Company provide non-technical information to local communities. Releasing technical reports already in its position, however, would not interfere with this responsibility in any way.

Oyu Tolgoi LLC has these reports in its possession, and they are the stated basis for many of the Company's key decisions. Failure to release these reports raises the question of what information they contain that the Company does not want stakeholders to see. We are concerned that the reason why the Company is unwilling to share these technical documents may be because it is attempting to hide worrying data or questionable decisions. We urge the company to release all such reports immediately, to avoid the impression that it is hiding information from stakeholders who have made specific requests for the reports.