Greenland Government

Ministry of Minerals and Industry

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Consultation letter regarding the Environmental and Social Impact Assessment for the Tanbreez project

WWF Verdensnaturfonden (WWF) has reviewed the submitted reports Social Impact Assessment (SIA) and Environmental Impact Assessment (EIA), which were prepared in connection with Tanbreez Mining Greenland A/S' application for an exploitation license for the Rare Earth Element (REE) eudialyte and the mineral feltspar at Killavaat Alannguat (Kringlerne).

Our primary concerns with the project are as follows:

- Deposition of tailings in Fostersø will result in increased concentrations of lead in the lake and the streams that run from the lake into the fjord. According to the EIA lead concentrations will reach 1,57 µg/l (above Greenland Water Quality Guidelines). WWF is concerned that lead levels will be beyond the modeled values after years of operation. WWF suggest that alternative depositions be considered.
- The potential risk of fluorine pollution is not covered in the EIA report. We recommend that a report focused on fluorine be shared with the public.
- Dust from the mining operations will have concentrations of lead too (up to 993 ppm). The dust will influence the towns of Narsaq and Qaqortoq as discussed in the Dust Dispersion Study, but this information is not discussed in the EIA report.
- The mining activities could be powered by renewable energy from the Qorlortorsuaq hydropower plant. WWF hopes that the dialogue between Tanbreez Mining Greenland A/S, Greenland Government and Nukissiorfiit on how the environmental footprint of the project can be reduced will continue.

WWF has **not** considered the background reports made available to the public only a few days prior to the first consultation deadline, including the geochemical studies prepared for Fostersø. We recommend that background reports and materials be published together with EIA/SIA reports in future consultations. We acknowledge that the Greenland Government has decided to extent the consultation period to allow for studies of the background reports as well, but we would have liked to extent the consultation period beyond four weeks, as the consultation period now covers the holiday seasons. We support the coalition of NGO's in the request for at new consultation deadline for 20 January 2014.

Stakeholders were identified early on in the EIA and SIA process and invited to influence the scoping of the studies. Early involvement and influence on studies conducted is an important recommendation that ICC Greenland and WWF Verdensnaturfonden has brought forward in the public debate on consultation processes. Furthermore, we are pleased to learn that Tanbreez Mining Greenland A/S is committed to open dialogue with stakeholders. These efforts are important and must be continued to ensure a high proportion of local workers including apprentices in the mine. We also encourage staging plans for closure of the mine at an early stage and in dialogue with Kommune Kujalleq.

Sections below include comments for 1. the environmental impact assessment (EIA) report, 2. the hydropower plant study, 3. the social impact assessment (SIA) report and 4. the local use study.

Kind regards

Mette Frost
WWF Verdensnaturfonden

1. Comments for sections of the EIA report

Section 5 / Project description

WWF Verdensnaturfonden acknowledges that efforts have been made to meet the Best Available Technique (BAT) principle for choices in machinery, processing technology and handling of waste.

5.1 The EIA report is based on a project design that does not include a chemical separation plant. If the company decides to apply for a chemical separation plant in Greenland WWF Verdensnaturfonden recommend that a new EIA report is prepared for public consultation prior to licensing.

5.3. From the Danish version of the EIA it is stated that: 'Arfvedsonit kan ikke sælges og deponeres i stedet I Fostersø som tailings' (page 27/114). This sentence is not included in the English version of the EIA.

We recommend that it be checked if arfvedsonite can be used locally for construction or other purposes as mentioned in Tanbreez Greenland Day presentation, 4 December 2012.

WWF Verdensnaturfonden understands that there are ways of utilizing minerals from tailings, and reducing what is left for deposits near the mine. We are familiar with the REEgain project, supported by the Danish Agency for Science, Technology and Innovation and presented in brief at the ARTEK 2013 event on sustainable mining. This study is not mentioned in the EIA. Our understanding is that new methods for extracting lithium from a fraction containing arfvedsonite are being developed. From what we understand the process when combined with the ongoing extraction process could yield a scenario of which potentially 4 megatons, corresponding to 10 pct., of the worlds know natural lithium reserves, are utilized. Utilization of the tailings of the mining operation can have both large economic and environmental benefits.

5.4 The mine will produce approx. 200.000 tons of tailings per annum. The mineral composition of these tailings must be studied and the lake must be monitored to make sure that lead and other pollutants are not spread into the environments linked to the lake.

5.9 Large bulk carriers and tankers will call on the harbor at the mining site to bring supplies, fuel and to carry minerals from the mine to foreign markets. The EIA does not establish if these carriers will use heavy fuel oil (HFO) or lighter fuels. WWF Verdensnaturfonden recommends that the use of HFO in all phases of the project is restricted to a minimum.

The consequences and hazards of an oil spill depend, among others, largely on the properties of the specific oil. When discharged into water, the weathering processes such as evaporation, dissolving, dispersion and water uptake/emulsification will start. The lighter components evaporate and the water-soluble parts dissolve and disperse into the water column. Most marine distillate fuels do not emulsify in contrast to the HFO. The duration of these processes varies with temperature, waves, wind and most of all the properties of the oil. As study showed, where the diesel oil has fully disappeared from the surface after 3 days, nearly all the HFO is still present after 20 days. In addition, after 3- 5 days most HFO's have emulsified to the maximum water content (40-80%). This results in a significant increase in the volume to be handled by an oil spill recovery operation. Hence the consequences of HFO spills are likely to be more severe than spills of

marine diesels. Arctic Council's Arctic Marine Shipping Assessment definitively states: "The most significant threat from ships to the Arctic marine environment is the release of oil through accidental or illegal discharge." It should also be noted that Antarctic, with similar environmental conditions, was designated as a special area where the carriage in bulk as cargo or carriage and use as fuel of the HFO is prohibited from 1 August, 2011 through the MARPOL chapter 9 with a new regulation 43.

Carriers and tankers must be fitted to meet standards for shipping in Arctic waters, specifically IMO guidelines for ships operating in polar waters. Also care must be taken to reduce the risk of oil spills from simple accidents, e.g. preparing safe procedures for transferring fuel from tanker to the on-shore facilities, making sure that sailing routes are clearly marked to avoid spills etc.

5.10 In relation to transport to and from the mine we recommend that corridors be established to reduce the impact of these activities in wildlife.

5.11 The EIA does not clearly establish the life span of the mine, but at public meetings we learned that the expected lifespan is 10 years.

WWF Verdensnaturfonden recommends that renewable energy solutions be considered in relation to mineral resources activities, as Greenland has potentials for hydropower as well as solar- and wind energy. The EIA establishes that plans are to use three diesel generator units to supply the mine with power. We would have liked to see the EIA cover information about alternative energy solutions comparing the economic and environmental consequences of both solutions described.

The English version of the EIA contains information about energy supply than what is in the Danish version.

5.15 Domestic and industrial waste will be disposed of through the use of an incinerator. WWF Verdensnaturfonden recommends that this incinerator be fitted with a filter to reduce the emission of sod and particles into the environment.

Plans for handling sewage and waste not suitable for incineration are in accordance with national and foreign standards. Hazardous waste must be stored safely before shipped away for handling. WWF Verdensnaturfonden is pleased with plans to establish a manual for handling waste in close cooperation with local authorities, but recommend that the Greenland Government be involved in this process too.

5.17.3 An alternative to diesel generators is to connect the mine with the Qorlortorsuaq hydropower plant. The EIA reads that the plant, with two 3.8 MW turbines, has no excess energy production to cover the need for energy in the Tanbreez project. Qorlortorsuaq started production in 2004 and supplies the towns of Qaqortoq and Narsaq with renewable energy.

WWF Verdensnaturfonden urges the Greenland Government to develop a long-term strategy for renewable energy including potentials for new industry, mining etc. In South Greenland several potential mines are developing and both the environment and the economy would benefit from a long-term investment in hydropower to supply mining activities.

The Nukissiorfiit site has no information on the possibilities for adding a third turbine in Qorlortorsuaq and the costs associated with connecting the power plant with the mine. Establishing hydropower in Greenland is expensive but these costs must be compared to the costs associated with diesel generators: the costs of fuel, shipment of fuel and generators plus the environmental costs associated with emissions of CO_2, black carbon etc. If Tanbreez Mining Greenland A/S plans to mine in Killavaat Alannguat for 20 or 30 years investments in renewable energy should be considered.

5.17.4 Tanbreez Mining Greenland A/S should look at possibilities for utilization of tailings, reducing the deposits made in Fostersø throughout the life of the mine.

Section 6 / Existing environment
Information on marine invertebrates, such as blue mussels, which are sensitive to contamination, is missing in the subsection on fauna. Also some references are missing in the reference list.

6.8.1 In the Danish version of the subsection on vegetation above 200 m there is a reference to figures 4.5, 4.6 and 4.7, which should be 6.4, 6.5 and 6.14.

Section 7 / Socio and economic setting
7.1 The section of population and local use is very brief. An introduction to local businesses is missing, e.g. local tourism industry and the use of the Upernaviarsuk, Hvalsø and Igaliko region for hiking, sailing etc.

7.2 From the brief section on archeology and cultural heritage it is not possible to establish the cultural importance of the region for the Norse as figure 7.1 only covers a small part of the region. In the EIA the plans to include the church ruin at Hvalsø to the UNESCO World Network of Biosphere Reserve is described in brief. The church ruin is only 6 kilometers to the south east of the Killavaat Alannguat and plans for mining in the area must be coordinated with the entities responsible for a future protection of the area, primarily the Kujalleq Kommune.

Section 8 / Impact assessment methodology
The introduction to the methodology used in the EIA is clear and gives a good introduction to the following sections of the EIA.

However, in the Danish version of the EIA (page 62/114) establishes that potential impact of the mines are assessed based on a 10 year mining period. This information is not available in the English version of the EIA.

The EIA does not establish a clear time plan. Therefore, for the reader of the EIA it is not clear if plans are to mine Killavaat Alannguat for 10, 20 or maybe the 31 years that tailings can be deposited into Fostersø. And it is unclear if the impact assessment would have been different if a longer life span had been used.

Section 9 /Impact assessment and identification of mitigation measures

9.1.1. WWF Verdensnaturfonden encourages that measures are taken to reduce the aesthetic impact of the mining pits. Illustrations of the area now, during mining and after, could have been used to support this section of the report.

9.1.2. A complete clean up at the site of the mine, including the deposit at Fostersø, is important for future generations. Greenland unfortunately has sites where abandoned mines are left with buildings, equipment etc. The Greenland Government must set high standards for clean up and make sure that financial guarantees are set to guarantee a clean up if the mine closes down early.

9.1.4 Planning infrastructure to have a small aesthetic footprint in the area is important, as roads etc. are permanent constructions in an environment where vegetation is both small and will take decades to develop. Conserving topsoil for use in rehabilitation of the area is one way of reducing the impacts, but roads and other infrastructure will be visible for generations. Therefore, a minimum of infrastructure must be established.

9.2.1 Dust is an important aspect of air environment in mining. Figure 9.1 and 9.2 gives a good illustration of dust deposition at the two sites with indication of highest values. Most dust comes from transport with trucks. Table 9.5 mentions the use of filters in crusher building to reduce dust emissions, but there is no mention of watering roads as a mitigation effort.

9.2.2 Estimated consumption of fuel is 7.8 million liters per annum, increasing Greenland's CO_2 emission by 20.881 tons. In the EIA this is presented as a 3.3 pct. increase in emissions from the mine compared to average emission for 2002-2009.

Greenland's emissions have fluctuated but overall increased in the period used. In 2011 emissions were 763.827 tons CO_2e. Compared to 1990; this is a 15.8 pct. increased and compared to 2010 a 6.4 pct. increase. 94.8 pct. of emissions are from combustion of fossil fuels, stressing the need for displacing fossil fuels with renewable energy sources (information from Statistics Greenland, emissioner af drivhusgasser 2011). Also, emissions will continue to climb as more mineral resources projects are maturing into mines.

WWF Verdensnaturfonden acknowledges the need for new industry in Greenland, but encourage the Greenland Government to establish a strategy for introduction of renewable energy in new industry.

9.3.1 Of concern is deposition of tailings and waste rock in Fostersø with the potential release of metals and other elements into the lake, streams and fjords. Release of contaminants can potentially affect the Arctic char population in Lakseelv. Studies of tailings from the site document potentially elevated levels of arsenic, cadmium, chromium, lead, copper and zinc. Tests suggest a potential for metal leaching of lead and arsenics if tailings and waste rock from the mine is deposited in water. Concentrations of metals in Fostersø will increase in the first years but reach a steady level after 5 years of operation as the lake wills with tailings and waste rock. Modeling predict that content of metals will be below the Greenland Water Quality Guideline values except for lead (after 5 years 1.57µg/l and marginally exceeds the GWQG value of 1 µg/l. But according to the EIA, values have to be met not in the Fostersø but in one or more specified points downstream.

WWF Verdensnaturfonden is concerned that the water of Fostersø will exceed GWQG values for lead. Controlling the outflow of water from Fostersø, constructing a dam at the outlet or pumping water out of the lake are mitigation measures that may control concentrations in the stream, but will still allow for lead to be disposed off into the fjord. Greenland has a long history of mining and in several sites; Ivittuut, Mestersvig and Malmbjerget, the marine environment has been polluted with lead. Activities date back many years when environmental standards for mining was not found and knowledge about the consequences if bio-accumulation in animals and humans was limited. See the publication Minedrift og Miljø I Grønland: http://www2.dmu.dk/1_viden/2_publikationer/3_temarapporter/rapporter/tema38.pdf

Leaching modeling is described thoroughly but references to reports etc. of the actual experiments must be included as a reference for credibility. For example there is no indication of the temperature in which the experiments have been carried out, which is relevant information, as changes in temperature can alter solubility of metals. Furthermore, extreme weather phenomena like droughts can increase the concentrations of pollutants in both Fostersø and Lakseelv.

Lead is known to disrupt the health system of phytoplankton, an important source of oxygen production in seas and many other marine environments. Lead accumulates in the food chain and in humans high lead levels in blood can cause birth defects and affect the physical and mental development of children. Introducing un-leaded gas and other initiatives have dramatically reduced concentrations of lead in the environment, today's sources of lead pollution are mining, metal industries and waste management.

Once deposited into the Fostersø lead cannot be collected again. Models show that once the mine stops the concentration of lead in the lake will fall below the GWQG values within a number of years.

WWF Verdensnaturfonden is concerned about the dissemination of lead and other pollutants into the marine environment. It is recommended that monitoring of lead concentration in Fostersø, streams and the fjord, be monitored carefully during operation of the mine and in the years following mining activities.

Furthermore WWF Verdensnaturfonden notes that there are several minerals containing fluorine in the region. Fluorine is not mentioned in the EIA report. We support the recommendations made by DCE/GN that Tanbreez be asked to give a judgment of what happens to the fluorine in the ore, tailings and waste rock, based on chemical analysis and solubility of fluorine.

WWF Verdensnaturfonden recommends that the agreement between the licensee and the Greenland Government covers responsibilities in case of miscalculations regarding modeled levels and developments of lead, fluorine and other pollutants in Fostersø and surrounding aquatic environments. Related to this is the control with and management of Fostersø with regards to controlling lead levels in Fostersø and streams.

9.3.3. Describes the impact of an accident leading to a spill of chemicals or oil into the fjord or freshwater in the region. A spill of oil may have devastating consequences for wildlife and related to this local use of the fjord. Mitigation efforts described are equipment at site available in the event of a spill and procedures for

handling spills, including training for personnel. In the event of an accident this is important, but Tanbreez can reduce the risk of accidents by having clear procedures for transferring fuel from tankers to facilities on shore, by placing trays under tanks and by maintaining tanks, pumps and other facilities. Mapped and marked shipping routes are another aspect that will reduce the risk of an oil spill.

Contingency plans must be prepared in cooperation with local and national authorities responsible for managing oil spills.

9.4.1 WWF Verdensnaturfonden find that the EIA does not sufficiently describe the disturbances that the mine and related activities will bring to the local environment. The section has a one page introduction to activities that create noise: the mining process, crushing, shipping and the use of trucks. But the levels of noise have not been estimated (in dB) and illustrated for the area related to activities (map).

WWF Verdensnaturfonden recommends that the nearest nesting sites of white-tailed eagles be localized and all traffic avoided within a radius of 5 km from the nest.

In the EIA, mitigation is linked to reducing human activities outside the mining core areas in spring and summer, but WWF Verdensnaturfonden recommend the use of corridors for helicopters, boats etc.

9.4.7 Describes contamination of terrestrial habitats from oil and other hazardous materials that can potentially pose a risk to animals, plans and their habitats. According to the EIA the risk of an oil spill is small and mitigation procedures for handling spill will be established. WWF Verdensnaturfonden recognize that most spills are likely to be small and local, but recommend that mitigation efforts include trays installed under tanks, maintenance of tanks and pumps, and procedures for transfer of fuel from tankers to tanks to reduce the risk of spills.

9.4.9 WWF Verdensnaturfonden believe that the Greenland Government should set standards for handling of ballast water in accordance with the IMO MEPC guidelines to avoid the introduction of invasive species to the local marine environment.

9.5 WWF Verdensnaturfonden support plans to develop a waste management plan for the project. We recommend that this plan be developed in cooperation with local authorities as well as the Greenland Government, in order to ensure that fractions that can be handled in Kommune Kujalleq are separated from hazardous waste which must be handled outside Greenland.

9.6 The EIA establishes that the 6 km distance and the high grounds are believed to prevent noise and dust from the mine from reaching the Hvalsø church ruin, potentially to be included in the UNESCO World Network of Bisophere Reserves. From the EIA it is not clear if the mining site is or has been within the potential UNESCO site, neither is it established if the mining site will affect tourism in the area, including tourism activities near Hvalsø.

Section 11/ Environmental monitoring plan

A draft monitoring plan is given in the EIA. WWF Verdensnaturfonden recommend that a detailed monitoring plan for Fostersø be established in cooperation with the Danish Center for Environment and Energy and the Greenland Institute for Natural Resources, to make sure that monitoring of the lake, streams and fjords is carried out.

WWF Verdensnaturfonden recommends that metal contents in arctic char from Lakseelv be monitored at least annually.

Section 12/ Conceptual decommissioning and closure plan

WWF Verdensnaturfonden recommends a draft budget for the closure plan be made, and money put aside during the first stages of operation, to be used for a possible unplanned closure, like in case of bankruptcy etc.

2. Comments for the hydropower plant study

The report includes information and considerations about including hydropower as an energy resource for the Tanbreez mining project. The report establishes that it is possible to use hydropower for the Tanbreez project.

The report establishes that small hydropower plant options are found in the area, but concludes that a small scale hydropower plant is not a competitive scenario compared to alternatives, e.g. generators powered by fossil fuels. An alternative is to extend the Qorlortorsuaq hydropower plant to allow for energy production that could meet the demand from the mine. Transmissions lines are not far away from the mine, but according to the report new power and energy estimates are needed.

The project description in the EIA is alternative 4 – diesel power plant on site. Therefore the mine will increase Greenland's emission of CO_2 by 20,881 tons a year. This alternative will also increase emissions of black carbon in the environment as a result of both energy production for the mine and transport of fuel to the mine.

WWF Verdensnaturfonden acknowledge that Greenland over 20 years has made marked investments in hydropower, bringing energy supply from hydropower to a record 70 pct. of public production. This is a remarkable investment that must be followed by a national strategy for bringing renewable energy into the new industries.

With the hydropower plant study the argument is made that renewable energy solutions in the end is a political decision. The project can be powered by renewable energy. WWF Verdensnaturfonden urge Nukissiorfiit and Naalakkersuisut/ Greenland Government to continue a dialogue with Tanbreez on how to improve the footprint of the Tanbreez project using renewable energy.

3. Comments for sections of the Social Impact Assessment (SIA)

WWF Verdensnaturfonden is supportive of plans to outsource activities related to transportation of goods and staff as well as servicing of the camp. This will have significant impacts on business life in the region.

4.3.1 One international convention highly relevant is the International Labour Organization's Indigenous and Tribal Peoples Convention, 1989 (ILO 169), ratified by Greenland and Denmark in 1996. Articles 14 and 15 are especially relevant for this project.

4.3.2 Tanbreez Mining Greenland A/S will pay dividend tax and corporate tax based on profit shown in annual reports. The company will not be paying royalties or exploitation fees in accordance with the Mineral Resources Act. WWF Verdensnaturfonden note that taxes based on exploitation of resources rather than on company profits are more transparent as companies will be paying for the resources mined and exported out of the country.

5.13 If Tanbreez at a later stage decide to develop further processing of concentrate in Greenland and/or to increase annual production from 500 tons to 1.5 million tons of ore, a new EIA and SIA must be completed and new studies on the consequences of deposition of tailings in Fostersø must be prepared.

6.2 The introduction to the methodology of the SIA report is detailed and gives a fine introduction to the analysis. We note the early engagement of stakeholders dating back to 2010, where input for the scope of the study was collected. A list of stakeholders indentified is included in the document. Early engagement of stakeholders in the scoping phase to allow for input on what is studied and how studies are conducted is one of the key recommendations that WWF Verdensnaturfonden have brought forward in the discussions about consultation processes in Greenland.

6.3 The SIA has information about construction, operation and closure stages of the mine, indicating that the mine will operate in 10 years. This information is missing in the EIA report (see comments for section 8). Furthermore, the information in the English version of the SIA is not consistent with the information in the Danish version (plans are pushed 1 year).

7.1 Description of social baseline conditions for Kommune Kujalleq reflects earlier studies of mobility, documenting that training and job security is an important aspect in mobility. Later sections have information on employment in Kommune Kujalleq, but this information is relevant here too.

7.3.3 NGO's are developing rapidly in Greenland these years, and a much needed debate has developed on where Greenland is heading and what the consequences of new industry is in relation to both nature, environment and society?

In relation to environmental organizations; the SIA includes Avataq, Earth Charter and Timmiaq. But other groups also exist even if they often have a local focus and even if they have developed in opposition to a mining project: Friends of the Nuuk Fjord/ Nuup Kangerluata Ikinngutai opposes the Isua mining project, and the 16. August group argues for local use of the Aappaluttoq Mountain, where True North Gems have plans to mine rubies, and lately the Naamik organization has been protesting the lifting of the zero-tolerance ban on uranium mining. Furthermore, Transparency International Greenland is a strong voice in

the debate about new industry as well as ICC Greenland the latter is working with WWF Verdensnaturfonden on a project set out to promote better consultation processes.

7.3.5 Has important insights on local harvest of living resources. The section documents the importance of living resources for the people of South Greenland but does not distinguish between subsistence hunting and non-subsistence hunting. Furthermore, we note that the harvest of harbor seal (*Phoca vitulina*) is not in accordance with current regulations (§4, stk. 3 Selvstyrets bekendtgørelse nr. 16 af 12. November 2010 om beskyttelse og fangst af sæler).
http://dk.vintage.nanoq.gl/Emner/Erhverv/Erhvervsomraader/Fangst_og_Jagt/Jagttider/~/media/A076905D02D143AB93FE60F230EB42E4.ashx

The SIA also documents that there is widespread use of the region; locals spend the summer sailing and camping in the fjords and large numbers of tourists travel to South Greenland. Hiking trails go near the mining site and Hvalsø 6 km from the mine is an important attraction for the region.

7.4.4 SIA information on unemployment stresses the need for new investments and jobs in the region.

8.1.1 WWF Verdensnaturfonden notes the dominant use of local workers for both construction and operation. And plans to outsource support to local businesses. Job creating and training/courses is an important and positive aspect of mining industry for a local community. 91 pct. of the workforce employed locally is a positive yet ambitious plan. We note that Tanbreez Mining Greenland A/S plan to take in 4 apprentices. Education and training is a long-term investment in society and we encourage the company to see if they can accept even more apprentices for the project.

Furthermore, we see no reason why key management work cannot be offered to locals at least after proper training. WWF Verdensnaturfonden recommends a goal of having locals in management positions at some realistic time during the production phase.

Early local dialogue on requirements and training as proposed (p 93) is important. We encourage Tanbreez Mining Greenland A/S already established in Qaqortoq, to prepare job descriptions and information for the community and to work with Kommune Kujalleq to make sure that local job creating reaches the 91 pct. target.

As mentioned in the text, there is a risk that already employed workers will seek jobs with Tanbreez Mining Greenland A/S leaving new job openings for people currently unemployed (p 92). In the region there is a risk that increased demand will push wages up if not supplemented by an increase in supply, e.g. unemployed workers joining the work force or workers moving to South Greenland.

Finally, the English version of the SIA is inconsistent with the Danish version regarding information about start of construction and operation of the mine.

8.1.4 Pressures on services like transport and accommodation in the region may create a potential conflict with other businesses, including tourism, but the region may benefit if increasing demand in the long run leads to better connections and more flights, more hotels etc.

8.1.6 Plans for closure of the mine that incorporate lessons discussed in this section are important. Tanbreez Mining Greenland A/S must discuss with Kommune Kujalleq how to minimize the negative effects of closure. Plans must be sketched in the start-up phase of the project.

WWF Verdensnaturfonden wish to stress that training / apprentice opportunities are important for the long-term social sustainability of the project.

8.5.1 The section on occupational health does not assess the long-term consequences of working in a production that creates large amounts of dust.

WWF Verdensnaturfonden would like Tanbreez Mining Greenland A/S to consider how continued dialogue and access to complaints, e.g. in the case of local pollution, violation of land use rights etc., be handled. We suggest that a complaint mechanism be established follows and brings attention to the following resources:

UN guiding principles on business and human rights:
http://www.ohchr.org/Documents/Publications/GuidingPrinciplesBusinessHR_EN.pdf

The Equator principles – a financial industry benchmark for determining, assessing and managing environmental and social risks in projects: http://www.equator-principles.com/resources/equator_principles_III.pdf

As such a mechanism will increase the credibility of the company and will be a way of monitoring its position in society.

4. Comments for the local use study

Methods

Within the two municipalities that are likely to be the most affected by mining activities, Qaqortoq Municipalities, has 3.762 inhabitants and Narsaq Municipality has 2.279 inhabitants. In the methodological section of the English version of the report (Local Use Study) it states that 40 peoples were interviewed followed by another 20 peoples and 5 phone interviews. One can ask whether interviewing 40 peoples + from these two municipalities is enough to cover the social and environmental perceptions of people likely to be affected by potential mining activities.

It appears too that the interviews were carried out in the winter 2008. Since 2008 and to the present, the interviewed local peoples position could have changed, so you could wonder why there hasn´t been conducted new up to date interviews with the involved people. 5 year old interviews are less reliable than new and updated data and the study would have benefited from new interviews.

At the time of the conducted interviews, the final location of the mining activities was not yet decided (p 9), and therefore the study relies on the present understanding of the project lay out. This seems like a discrepancy, as the interviewees potentially have answered the questions of the study in relation to a different location than the current one.

Also, due to the low number of individuals interviewed for the survey, many of the paragraphs conclude that there is only a limited amount of people using the area for different activities, which seems to present a low degree on external reliability, as if more people had been interviewed, the measurable impact might also be greater.

Section 6.2.1 A table is shown with statistics from 2001. Again the study would have benefited from newer data.

Appendix 2 It appears that a questionnaire had been used. Have Tanbreez Mining Greenland A/S considered the reliability of these studies compared to the reliability of quantitative interviews? Having a face-to-face dialogue with local representatives would most likely have provided valuable information and new insights.

Subsistence/farming concerns

Sheep famers have expressed concerns with potential dust on their hay fields that provide fodder for their sheep, but also with the amount of grazing area for the sheep, that might be impacted by mining activities (p 35-36). This concern was voiced at a consultation meeting in South Greenland stressing the need for documenting impacts of the mine on farming in the area. WWF Verdensnaturfonden encourage Tanbreez Mining Greenland A/S to enter into dialogue with the organization of sheep farmers/ Savaatillit Peqatigiit Suleqatigiisut.

There is an interesting deposit of different minerals in the area such as the rare mineral Tuttupit, which the locals show a strong interest in collecting, despite only one person being proven to depend on this type of collection as a source of primary income, the mining company must have a clear policy in relation to where the local population is allowed to engage in such activities, as they are by law allowed to do so (ESIA, p. 37).

Tourism

In the report there is mention of the potential negative impacts on tourism, as there are many important historical relics in the area, Norse homesteads and Inuit hunting camps, and that tourism in the area could be disturbed by noise from mining activities, but also destroy the aesthetic beauty of the area through the establishment of new mining compounds.