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#### 1.4.4 **Public revenue**

If the project materialises, it is expected to create a positive public gross revenue. Public revenue will be achieved through income taxes, corporate taxes and royalties.

##### **Potential impact 8: Royalties and taxes**

The impact of royalties and taxes on public revenue is expected to be positive.

During the operation phase, the project will generate income taxes and royalties. If the project is generating profits for Dundas Titanium A/S it will furthermore generate corporate taxes. In the pre-feasibility study (PFS) the tax and royalty payments have been calculated in different mining scenarios. With ten years of production, and the costs and income as assumed in the PFS, the total corporate tax and royalty payment is calculated to be a sum of DKK 346.6 million. If the lifetime of the project is extended, this figure will increase.

Income tax generation is dependent on the salaries of employees, and the nationality of employees. Based on the expected positions and salaries, the annual income tax generation from employees directly employed by the project will be between DKK 24.6 and 26.6 million.

During the phases of construction and closure employees will also pay income taxes.

#### 1.4.5 **Other socio-economic and sustainability matters**

In addition to creating new job opportunities and generating public revenue, the project can also have an impact on other social issues in the local society.

##### **Potential impact 9: Pressure on public sector, infrastructure and services**

The project is located in a remote part of Greenland, where infrastructure and public services are limited. The project will impact the public services: Police will be responsible if something happens on site, telecommunication services in the area will have to be improved to service the project, and the Greenlandic health sector can be put under extra pressure. The overall assessment is that the project will lead to increased pressure on public services.

The project is not expected to have negative impacts at a local level, and it can potentially lead to positive indirect impacts to the population in Qaanaaq and the settlements, if for instance telecommunication services are improved.

Several stakeholders have pointed out that it would have a direct positive impact on Qaanaaq if the project used the airport in Qaanaaq as an entry point, instead of building its own airstrip. This is however not possible for the project. However, Dundas Titanium A/S is evaluating the possibilities of making a stop in Qaanaaq when en route for the mining site to pick-up/drop local employees

##### **Potential impact 10: Public health**

There are no people living near the project, and no communities will be impacted by potential health effects from the project, such as dust, noise or pollution.

With many employees, potentially from different countries and cultures, living full time at the mine site for several weeks, the largest risk for impacts of the public health derives from infections received at the mine site and brought back to the home communities.

**Potential impact 11: Cumulative impacts (not related to job market)**

Climate change is affecting the traditional livelihood in the Thule area, where weather and ice conditions are changing. This means that the timing of migrating animals are changing. Consequently, the best areas to go hunting are slowly changing. For instance, walrus hunting near Siorapaluk is no longer as good as it used to be. The Moriusaq area has only been used very little for hunting and fishing during the past years, but in a no-project scenario, Moriusaq could potentially change status, so it would be used for fishing or hunting again.

The project will lead to increased maritime traffic in the area. However, the change is relatively small. The local chairman of KNAPK (the Association of Fishers and Hunters in Greenland) does not expect that the project will impact the animals in the area, as these are already used to the noise from the Thule Air Base.

It must be noted that environmental impacts are not assessed in the SIA.

Due to the limited size of the project, the project is not assessed to have any major impact on the possibilities for living a traditional life for the population in Qaanaaq or the settlements, with regard to fishing and hunting.

**Potential impact 12: Recreational/local use of project area and cultural heritage**

The project area is located between Qaanaaq (80 km north) and Savissivik (120 km south). There is only very limited activity in the area.

When the project materialises, and the closed and abandoned settlement Moriusaq is removed, the mining company will provide opportunities to stay overnight at the project's facilities or in renovated moved houses from Moriusaq, or in new houses, and it will be possible to visit the Moriusaq cemetery. There will, however, be limited access to the parts of the license area where the company is working, and people who wish to dock within the license area will have to contact the mining company.

The Greenland National museum has identified nine sites falling under the provisions of the Heritage Act at the license area of the Ilmenite Project. These sites will either not be mined or they will be subject to a complete archaeological investigation by the museum.

**Potential impact 13: Resettlement/livelihood compensation**

No people live in the license area, and no hunters or fishermen make their livelihood - or significant parts of their livelihood - from hunting or fishing in the project area.

Consequently, nobody will be resettled due to the project and nobody will receive livelihood compensation.

**Potential impact 14: Vulnerable groups**

Vulnerability is often linked to factors such as poor health, abuse, lack of education and unemployment.



As the project is not located in an inhabited area, it will not directly influence a local population. Due to this, the project will not directly impact any vulnerable groups.

Indirect negative impacts can occur with regard to children in vulnerable families, if the most functional adult in the household is employed on the project, and is therefore not present in the household during the time she/he is working on the project.

Similarly, it has been indicated that the project can have indirect negative impacts on vulnerable people in small, local communities, if the project succeeds in hiring several employees from the relatively small communities.

## **1.5 Overview of proposed measures (mitigation or enhancement)**

Mitigation measures have been identified throughout the SIA process. Mitigation measures are measures that can enhance positive impacts of the project or measures that can minimise negative impacts.

Mitigation measures can be initiated by the company or the authorities.

Table 1.5: Overview of proposed mitigation measures

| Issue  | Proposed mitigation measures   |
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| <b>Employment</b>  |  |
| Potential impact 1: Direct engagement of Greenlandic workers           | <ul style="list-style-type: none"> <li>• Focus should be on creating an attractive work place for recruitment and retention of local workforce. This includes that Dundas Titanium A/S must address cultural, gender, competences and geographical issues and incorporate findings into planning of the project (rotation scheme, transport arrangements and working conditions at camp).</li> <li>• The project should put emphasis on creating and maintaining Greenlandic culture at the site, including managers who speak Greenlandic and provision of local food at the site.</li> <li>• There should be adequate access to internet and phone connections for employees to be able to keep in touch with their families.</li> <li>• It is suggested that local workers can be offered shorter term positions. For instance, the local unemployment is higher in the autumn, when there are no fishing and hunting activities, and thus this time of year would be a good opportunity for a short-term position.</li> <li>• To target the search for local applicants, it is necessary to ensure strong cooperation between public jobcentres (Majoriaq), educational institutions, job consultants in the towns and settlements and the mining company, to target the search for applicants.</li> <li>• Detailed job description and requirements for all categories of job during operation phase should be made publicly available to community, municipality, unions and technical schools. Job descriptions and qualification requirements are to be developed and distributed to all relevant stakeholders.</li> <li>• In order to progressively replace foreign labourers with local labourers, it is necessary to do an active on-site training of local employees, so that they can advance to higher level positions.</li> <li>• Stakeholders are advising that the company starts to work on engaging Greenlandic employees as early as possible, preferably during the exploration and construction phases.</li> <li>• It is suggested that the mining company makes visual advertisements (for instance short videos) describing what it is like to work at the mine. Potential employees can then watch the video on the company homepage, in order to get an insight into the daily tasks of, for instance, a shift operator. This will give a much better impression of the work compared to a written job advertisement.</li> </ul> |
| Potential impact 2: Creation of indirect and induced job opportunities | <ul style="list-style-type: none"> <li>• The creation of indirect jobs in Greenland is dependent on how much of the supplies to the mine that are supplied locally. A focus on hiring Greenlandic contractors and buying products produced in Greenland (when possible) will lead to a relatively higher indirect job creation.</li> <li>• When possible, procurement and contract packages for goods and services should be prepared in a way that makes it possible for Greenlandic companies to bid on the contract, to see if they can provide a competitive bid.</li> <li>• When possible and competitive, activities related to transportation of goods and staff should be outsourced to local companies.</li> </ul>  |

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|  | <ul style="list-style-type: none"> <li>• Close dialogue to local transportation providers should be established to discuss local opportunities and challenges (Air Greenland and Royal Arctic Line).</li> <li>• Close dialogue with Tele-POST to clarify and establish the necessary communication services for the project.</li> <li>• When outsourcing services (potentially carpentry, engineering, electricity work, IT services, cleaning, catering, laundry and similar), Greenlandic companies should be invited to bid on the contract.</li> <li>• When outsourcing larger service contracts, it can be set as a requirement that some goods/services are purchased in Greenland.</li> <li>• Local hunters could provide local meat to the camp.</li> <li>• A forum can be established with the local business council, regional and/or national authorities and GE (Greenland Business Association) to discuss potential tender processes, with the purpose of ensuring that also Greenlandic companies are targeted.</li> </ul>  |
| <p>Potential impact 3:<br/>Cumulative impacts related to job market</p>  | <ul style="list-style-type: none"> <li>• There should be a focus on employing people who are currently outside the labour market. This should happen in a cooperation between authorities, educational institutions and the company.</li> <li>• There should be a focus on providing targeted training to potential unskilled employees, so they can fill the open positions and obtain documented qualifications for work on other future mining projects.</li> </ul>   |
| <p>Potential impact 4:<br/>Occupational health and safety on site</p>    | <ul style="list-style-type: none"> <li>• Occupational Health Risk Assessments must be carried out and updated continuously. The assessment must be used to develop, implement and monitor a health and safety management plan that all staff at the site must adhere to.</li> <li>• Training programmes for all staff on H&amp;S and emergency response at the mine site, training programmes must be carried out in Greenlandic, English and potentially other languages for people not fluent in one of the two languages.</li> <li>• Establishment of a health and safety committee with joint participation of management and workers, where workers help to monitor and advise on H&amp;S programs at the mine site.</li> <li>• Pre-notification of operations and traffic of vessels to relevant authorities.</li> <li>• Contractual requirements on H&amp;S to contractors regarding safety measures, response time, etc., in order to minimise risk of accidents, appropriate and timely response in case of accidents, emergency evacuation etc.</li> <li>• Procedures for on-site handling of accidents, and clear procedures for emergency evacuations must be agreed with relevant authorities.</li> </ul> |
| <p>Potential impact 5:<br/>Labour conditions and health of employees</p> | <ul style="list-style-type: none"> <li>• An organised health screening process prior to employment. The health screening can also screen for contagious diseases that could spread to other employees at the mine.</li> <li>• Dust and noise control on machinery, e.g. water sprays and noise inhibitors.</li> <li>• Provision of personal dust protective equipment and noise protective equipment (e.g. dust masks, ear defenders, helmet).</li> <li>• Monitoring of potential plutonium pollution or pollution from the Thule Air Base.</li> <li>• Introductory sessions for all workers should include a section on intercultural understanding.</li> <li>• International workers should be given an overview on Greenlandic culture as part of their introduction programme.</li> </ul>  |

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|  | <ul style="list-style-type: none"> <li>• It should be ensured that the camp accommodates the cultural needs of the different nationalities living at the camp.</li> <li>• Established anti-bullying and anti-harassment policies in place, and procedures if employees are bullied or harassed.</li> </ul>   |
| Potential impact 6:<br>Development of competencies | <ul style="list-style-type: none"> <li>• A Training Needs Assessment can be undertaken in cooperation with local authorities to ensure that the training opportunities provided benefit both Dundas Titanium A/S and the local business life, also for service-related and managerial positions.</li> <li>• Pre-employment and on-the-job training programmes for the operation phase must be developed as early as possible, and preferably during the construction phase.</li> <li>• Pre-employment and on-the-job training programmes should be developed in cooperation with local authorities, educational institutions and labour market organisations.</li> <li>• A continuous dialogue with educational institutions (especially the mining school) on how internships and training programs can be carried out in cooperation with the institutions must be initiated. It is suggested that a quarterly meeting between the mining school and the project is planned throughout the project's construction phase, to ensure that the school is aware of the future demand for skills.</li> <li>• There must be a focus on continuously upgrading of employees at all levels, in order to retain and develop employees.</li> <li>• The company must offer apprenticeships within different fields of work, e.g. processing, management etc.</li> </ul> |

### Education and training

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| Potential impact 6:<br>Development of competencies | <ul style="list-style-type: none"> <li>• A Training Needs Assessment can be undertaken in cooperation with local authorities to ensure that the training opportunities provided benefit both Dundas Titanium A/S and the local business life, also for service-related and managerial positions.</li> <li>• Pre-employment and on-the-job training programmes for the operation phase must be developed as early as possible, and preferably during the construction phase.</li> <li>• Pre-employment and on-the-job training programmes should be developed in cooperation with local authorities, educational institutions and labour market organisations</li> <li>• A continuous dialogue with educational institutions (especially the mining school) on how internships and training programs can be carried out in cooperation with the institutions must be initiated. It is suggested that a quarterly meeting between the mining school and the project is planned throughout the project's construction phase, to ensure that the school is aware of the future demand for skills.</li> <li>• There must be a focus on continuously upgrading of employees at all levels, in order to retain and develop employees.</li> <li>• The company must offer apprenticeships within different fields of work, e.g. processing, management etc.</li> </ul> |
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### Greenlandic enterprises

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| Potential impact 7:<br>Business opportunities for Greenlandic businesses | <ul style="list-style-type: none"> <li>• When possible, procurement and contract packages for goods and services should be prepared and issued to the pre-qualified and approved bidders in Greenland as well as overseas.</li> <li>• Activities related to the transportation of goods and staff can be outsourced. Where possible and competitive, local businesses can provide these services (Air Greenland and Royal Arctic Line).</li> </ul> |
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- Servicing of the camp will be tendered. Such services include catering services, cleaning, laundry and similar tasks. There will be a number of local services provided for the mine such as carpenters, engineers, electricians and IT services.
- Close dialogue with local transportation providers will be established to discuss local opportunities and challenges (Air Greenland, Royal Arctic Line).
- Close dialogue with local fuel providers (as Polaroil) will be established to discuss local opportunities and challenges. Special attention will be given to the type of fuel and opportunities of transport of fuel to the location.
- Close dialogue with KNAPK in order to organise provision of local food to the camp.
- Establishment of a forum with business council. This forum will be used before and during the tender process to provide information and clarification of the tenders.

### Public revenue

Potential impact 8:  
Royalties and taxes

No mitigation measures are listed for this impact.

### Other socio economic and sustainability matters

Potential impact 9:  
Pressure on public sector, infrastructure and services

- Dialogue between Dundas Titanium A/S and the relevant authorities is necessary to clarify the procedure for establishing an airstrip on site and the routes that can be used to access the airstrip.
- A Health and Safety Management Plan must be developed in close cooperation with the authorities, including a procedure for use of external public health care services.
- Establish contact with local health service and authorities and prepare contingency plans in cooperation.
- Develop a plan and an approach in collaboration with the Police covering aspects of customs and the role of the Police on site.

Potential impact 10:  
Public health

No mitigation measures are listed for this impact.

Potential impact 11:  
Cumulative impacts (not related to job market)

No mitigation measures are listed for this impact.

Potential impact 12:  
Recreational/local use of project area and cultural heritage

- People travelling in the area should be able to dock their boats, and have the opportunity to stay in the area for rest.
- If possible, it would be a benefit for locals if they could buy fuel and basic goods at the site.
- It should be easy to find a phone number for the person at the camp, whom locals should contact when they are in the area.

Potential impact 13:  
Resettlement/livelihood compensation

No mitigation measures are listed for this impact.

Potential impact 14:  
Vulnerable groups

- The project, in corporation with the authorities, should have focus on identifying and assisting people with little or no formal skills to realise the opportunities for working at the project, and assist in the application and potential training.
- Job adds should be made easily accessible for people with little education and who are not currently working. For instance, it is suggested that job ads are printed and made available at Majoriaq in Qaanaaq and service houses in the settlements. It is also suggested that the mining company make a small video in plain language explaining how it is to work at the mine. In this way people with limited knowledge of the mining sector can get an understanding of what the job includes.
- The project should not offer salaries that are much higher than what skilled workers can earn in the local communities.