

### 5.3 CONCLUDING STATEMENT ON ALTERNATIVES

Namibia has a huge potential to be an international logistics hub for the inland areas of Southern African Development Community (SADC). A milestone indicator of the realization of this goal, is the advanced expansion of the Port of Walvis Bay container trans-shipment hub.

Additionally, the Namibia Ports Authority considers several options to enhance handling capacity at the Port of Lüderitz including the development of a new deep-water port at Agra Point, and or the deepening of the current port (which is deemed to have great environmental implications / restriction) and or introducing transshipment vessel facilities.

Despite the limited capacity to handle large bulk cargo, the Port of Lüderitz is considered the preferred export route for the proposed operation given its close proximity from the proposed animal holding facilities and feed supply. Alternative Haulage method considered entails the “Rail” or “Road” transport and the “Road Option” is recommended as far as enhancing animal welfare is concerned.

In case of social impacts, the assessment focused on third parties only (third parties include members of the public and other local and regional institutions) and did not assess health and safety impacts on workers because the assumption was made that these aspects are separately regulated by health and safety legislation, policies and standards.

The No-Action Alternative comparative assessment, suggests that environmental impacts of a future in which the proposed activities do not take place, may be good for the receiving environment because there will be no potential negative or positive environmental impacts associated with the proposed activities (import and exports trading).

### 5.4 ASSESSMENT OF IMPACTS AND MITIGATION

Mitigation measures to address the identified impacts are discussed in this section and included in more detail in the EERP report that is attached in **Appendix B**. In most cases (unless otherwise stated), these mitigation measures have been taken into account in the assessment of the significance of the mitigated impacts only

#### 5.4.1 IMPACTS ON THE BIOPHYSICAL ENVIRONMENT

Potential impacts in respect to the Biophysical (Table 10) environment involves particularly the terrestrial and marine ecology (**Table 13**) environments and relate mainly to the handling and storage of the commodities both at the TransNamib and NamPort premises (both in Keetmanshoop and Aus respectively).

**Table 13. Impact on the Terrestrial Environment – Construction of feedlots and transportation activities**

Impact Event	Disturbances to the terrestrial ecology					
Description	The two proposed Feedlots facilities could have implications on the terrestrial ecology particularly during the construction and operation phases. However, careful site selection drastically eliminated the impacts as both site are to be located within build-up environments, and on suitably zoned area. The use of on the major road and rail network further reduces potential implication on wildlife and livestock (road-kills).					
Nature	Impacts on the terrestrial environment as a result of the project could result from the following: <ul style="list-style-type: none"> <li>• Generation of dust contaminating the environment</li> <li>• Secondary impacts such as Fauna and Flora Poaching</li> <li>• Truck / Train – animal (Wild / Livestock) collisions, where the road / railway passes through farms and national parks.</li> </ul>					
<b>Phases:</b> Phases during which sources of terrestrial ecology impacts apply are highlighted below; Significance assessment was carried out on the operational phase which presents a long term risk.						
Construction Phase	Operational Phase	Decommissioning Phase		Post Closure		
<ul style="list-style-type: none"> <li>• Land preparation and construction activities</li> <li>• Temporary lodging for construction staff</li> </ul>	<ul style="list-style-type: none"> <li>• Transportation of sheep by truck / rail</li> <li>• Operation and maintenance of the feedlot facility</li> <li>• Back-up water supply</li> </ul>	N/A		N/A		
Severity	Taken together, the disturbances will have a high severity in the unmitigated scenario. In the mitigated scenario, many of these disturbances can be prevented or mitigated to acceptable levels, which reduces the severity to low.					
Duration	The Significance of the potential impacts is subject to the proposed operation's life-time, however the identified impact's duration is incidental and short-term.					
Spatial Scale	Low, localized although the affected environment extend the length of the entire transportation route incidents occurrence may be highly localized					
Probability	Very Low, especially in respect to wildlife / livestock collision as most livestock are contained in farms while the Karas regions has very low wildlife population					
Unmitigated	Severity	Duration	Spatial Scale	Consequence	Probability of Occurrence	Significance
	H	L	M	H	L	H
Mitigated	Severity	Duration	Spatial Scale	Consequence	Probability of Occurrence	Significance
	L	L	M	L	L	M
Conceptual Description of Mitigation Measures	<ul style="list-style-type: none"> <li>• Strict compliance with the EERP is recommended in respect to managing incidental events;</li> <li>• Dust and noise suppression measures must be strictly observed at all times particularly during the construction and operation phases</li> <li>• All facilities (Trucks and Feedlot) must appropriately equipped emergency response kits (fire extinguishers and spill kits) to prevent any contaminations</li> </ul>					

**Table 14. Impact on the Terrestrial Environment – Sheep Welfare at Destination Country**

Impact Event	Anthropogenic impacts of the Sheep species					
Description	The global trade in live farm animals has more than quadrupled in size over the past 50 years, but patchy regulation means animals may be put at risk on some journeys, or exposed to cruelty when they reach their destination. These concerns has led animal welfare campaigners to call for banning of live export, it has not been banned in either New Zealand or Australia but rather stringent measures were proposed.					
Nature	<p>Numerous exposes, investigations and reports conducted destination countries have produced evidence of severe and systemic animal cruelty and welfare issues in overseas destinations which affect the Namibian beef industry as follows:</p> <ul style="list-style-type: none"> <li>• Damage to the national reputation</li> <li>• Robs the local economy of the ‘value-add’ beef market</li> </ul>					
<b>Phases:</b> Phases during which sources of terrestrial ecology impacts apply are highlighted below; Significance assessment was carried out on the operational phase which presents a long term risk.						
Construction Phase	Operational Phase	Decommissioning Phase		Post Closure		
N/A	<ul style="list-style-type: none"> <li>• Introduction of the Live Sheep Export through Namibian Ports</li> </ul>	N/A		N/A		
Severity	Given the target market (Halal / Religious), requiring strict procedures for which the sheep may be exposed to inhumane conditions during slaughter. Unfortunately, the responsibility of TradePort in respect to ensuring animal welfare is limited to Namibia and on the vessel, thus once at destination country the severity is very-high.					
Duration	The Significance of the potential impacts on the beef market is non-existent or very low, as no sheep is currently slaughtered locally for the export market.					
Spatial Scale	Low, export is conducted though Namibia the impact on sheep export is entirely subjected to South African sheep export market (exclude the Namibian population from the operations)					
Probability	Very Low, strictly no sourcing of livestock from Namibia is foreseen thus supply for the local processing / value addition shall remain unaffected. While reputational damage is subject to livestock export carrier appointed.					
Unmitigated	Severity	Duration	Spatial Scale	Consequence	Probability of Occurrence	Significance
	H	L	M	H	L	H
Mitigated	Severity	Duration	Spatial Scale	Consequence	Probability of Occurrence	Significance
	M	L	L	H	L	H
Conceptual Description of Mitigation Measures	<ul style="list-style-type: none"> <li>• Strict compliance with the OIE Terrestrial Animal Health Code (TAHC) and other relevant legislations (Animals Protection Act. 71 of 1962) and the Animals Protection Amendment Act. 7 of 1972) is highly recommended in respect to addressing animal welfare concerns</li> <li>• It is further recommended that the proponent enters into a binding agreement with the relevant competent authority (as legislations may allow) in respect to strictly sourcing the Sheep for the export operations from South Africa. This is in order to promote the Namibian “Growth-at-Home” initiative and thus sustaining the local economic growth and harnessing job employment</li> <li>• Strict monitoring and reporting on the implementation of the proposed operations to the relevant competent authorities i.e. Ministry of Agriculture, Water and Land Reform (Directorate of Veterinary Services) and Ministry of</li> </ul>					

	Environment, Forestry and Tourism (Department of Environmental Affairs and Forestry).
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**Table 15. Impact on the Terrestrial Environment – Waste Management (Solid and Bio-matter)**

Impact Event	Waste generation and disposal					
<b>Description</b>	Operational activities relating the delivery, and handling and feeding program present room for the generation of both solid waste (packaging material) and bio-waste (animal manure). Livestock in holding facilities tend to generate large amounts of manure and about 0.08% mortalities are record, thus consideration for practical mitigations were made.					
<b>Nature</b>	<p>In general, feedlot facilities generates very little domestic solid waste includes but may not be limited to:</p> <ul style="list-style-type: none"> <li>• Packing materials i.e. feed bags, veterinary cartons, wood pallets and minor hydrocarbons (fuels and lubricants)</li> <li>• Bio-waste includes animal manure and dead carcasses</li> <li>• Possible contamination of soils and groundwater, in case of hydrocarbon spillage mainly from maintenance of equipment and vehicles</li> </ul>					
<b>Phases:</b> Phases during which sources of terrestrial ecology impacts apply are highlighted below; Significance assessment was carried out on the operational phase which presents a long term risk.						
<b>Construction Phase</b>	<b>Operational Phase</b>	<b>Decommissioning Phase</b>		<b>Post Closure</b>		
N/A	<ul style="list-style-type: none"> <li>• Sheep husbandry activities (Feeding and veterinary care)</li> </ul>	N/A		N/A		
<b>Severity</b>	Taken together, waste generation in feedlots facilities presents impacts that are of low severity as in general little is generated.					
<b>Duration</b>	The duration of the potential impacts is bound to the duration of the proposed operations thus medium to long-term in nature					
<b>Spatial Scale</b>	Low, waste generation shall be limited mainly to the feedlot related activities and thus to Keetmanshoop and Aus Settlements, hence very localized					
<b>Probability</b>	Very High, Livestock in holding facilities tend to generate large amounts of manure and about 0.08% mortalities are record, although very low in respect to domestic waste generation.					
<b>Unmitigated</b>	<b>Severity</b>	<b>Duration</b>	<b>Spatial Scale</b>	<b>Consequence</b>	<b>Probability of Occurrence</b>	<b>Significance</b>
	M	H	L	M	M	H
<b>Mitigated</b>	<b>Severity</b>	<b>Duration</b>	<b>Spatial Scale</b>	<b>Consequence</b>	<b>Probability of Occurrence</b>	<b>Significance</b>
	L	L	L	L	L	M
<b>Conceptual Description of Mitigation Measures</b>	<ul style="list-style-type: none"> <li>• Domestic solid-waste shall be collected and temporarily stored on-site till its collect by the town or village council solid waste units / departments</li> <li>• Hydrocarbon waste shall be contained and stored separate from the domestic waste, transported to the nearest waste-oil recycling facility in Keetmanshoop</li> <li>• I respect to bio-matter, manure will be scraped every six (6) months from the feeding pens (or during rotation cycles of the sheep) and appropriately stockpiled, and it will then be sold in bulk to customers able to fetch it with trucks. While the carcasses can be donated to wildlife conservation facility or dogs and other domestic animals rescue homes.</li> <li>• A sufficient number of sill kits shall be acquired and strategically placed, particularly in the maintenance workshop facility area to ensure that timely response to any potential fuel and lubricant spills is conducted. These shall include an on-site used oil disposal bin(s)</li> </ul>					

**Table 16. Impact on the Marine Environment - Handling of sewerage and dead carcass waste**

Impact Event	Disturbances to the marine ecology – marine pollution					
Description	<p>Impacts in respect to Marine Ecology relates manly to accidental spillage or leakage of oil, fuel, or contamination of sea water and thus affecting the chemical or biological oxygen demand (COD or BOD, respectively).</p> <p>Dissolved particulate matters as a result of dumping at sea could lead to diminished oxygen levels in seawater which forces mobile fauna to flee while sessile and sediment-dwelling organisms die.</p>					
Nature	<p>When oxygen is no more available for the break-down of discharged matter, other microbial communities take over, leading to emissions of sulphide but this is trues as far as hazardous chemical are concerned and not organic matter such as livestock carcasses or sewerage matter.</p>					
<p><b>Phases:</b> Phases during which sources of marine ecology impacts apply are highlighted below; Significance assessment was carried out on the operational phase which presents a long term risk.</p>						
Construction Phase	Operational Phase	Decommissioning Phase			Post Closure	
N/A	<ul style="list-style-type: none"> <li>Shredding of dead sheep and disposing it</li> <li>Handling and disposing of animal sewer</li> </ul>	N/A			N/A	
Severity	<p>In the unmitigated scenario, the potential risk for sea water contamination is medium if illegal sewerage dumping is done. However, It is a common practice on these vessels to leave the sewerage in the pens as it forms a mat. This mat prevents the animals from slipping and serves a great purpose during the voyage. Hence, with mitigation the severity in this case is low.</p>					
Duration	<p>The Significance of the potential impacts is subject to the proposed operation’s life-time, however the identified impact’s duration is incidental and short-term.</p>					
Spatial Scale	<p>Low, localized although the affected environment extend the length of the entire transportation route incidents occurrence may be highly localized</p>					
Probability	<p>Very Low, illegal discharge at sea is highly perspective as not all operators engage in such conduct, thus depending on choice of carrier operator chance of it occurring are slim (low).</p>					
Unmitigated	Severity	Duration	Spatial Scale	Consequence	Probability of Occurrence	Significance
	L	L	M	H	M	H
Mitigated	Severity	Duration	Spatial Scale	Consequence	Probability of Occurrence	Significance
	L	L	M	L	L	M
Conceptual Description of Mitigation Measures	<ul style="list-style-type: none"> <li>Strict compliance with the EERP is recommended in respect to managing incidental events;</li> <li>It is highly recommended that TradePort Namibia negotiate and engage a responsible livestock carrier with a credible record (about 26, <b>Appendix D</b>) operators to select from.</li> <li>Strict compliance with the international polluter pays principle and other relevant legislations (Dumping at Sea Control Act 73 of 1980, Prevention and Combating of Pollution of the Sea by Oil Act 24 of 1991, Marine Resources Act 27 of 2000, and Namibian Ports Authorities Act 2 of 1994) is highly recommended in respect to addressing animal welfare concerns</li> <li>Equally, monitoring and reporting to this effect must be timely and in the appropriate form and manner undertaken</li> </ul>					

**Table 17. Sea Environmental Impacts on the Sheep – On-the- vessels disease and veterinary care**

<b>Impact Event</b>	<b>Disturbances to the marine ecology – marine pollution</b>					
<b>Description</b>	Impacts in respect to Animal welfare for the transported livestock. The long truck journeys (>20 hours, no food or water) to the ports are the first concern, but these would be followed by many weeks at sea. Stocking densities on board prevent animals from comfortably lying down or accessing food and water.					
<b>Nature</b>	Many animals do not adapt to the abrupt change in diet to pellet feed a few days before they are loaded on to the vessels and therefore starve or develop other illnesses. It is further perceived that, conditions such as salmonellosis, heat stress, pneumonia are prevalent, with high mortality in live sheep export vessels.					
<b>Phases:</b> Phases during which sources of marine ecology impacts apply are highlighted below; Significance assessment was carried out on the operational phase which presents a long term risk.						
<b>Construction Phase</b>	<b>Operational Phase</b>	<b>Decommissioning Phase</b>			<b>Post Closure</b>	
N/A	<ul style="list-style-type: none"> <li>Handling and care for the sheep while on voyages at sea</li> </ul>	N/A			N/A	
<b>Severity</b>	If not mitigated, impacts related to communicable diseases present severe risks which include potential rejection of consignment, to/by especially destination country (Namibia or Middle-East etc...). In the mitigated scenario, the severity is low.					
<b>Duration</b>	The Significance of the potential impacts is subject to the proposed operation's life-time, however the identified impact's duration is incidental and short-term.					
<b>Spatial Scale</b>	Low, localized although the affected environment extend the length of the entire transportation route incidents occurrence may be highly localized					
<b>Probability</b>	Very Low, this depends highly on choice of carrier operator and credibility of their operations chance of it occurring are slim (low)					
<b>Unmitigated</b>	<b>Severity</b>	<b>Duration</b>	<b>Spatial Scale</b>	<b>Consequence</b>	<b>Probability of Occurrence</b>	<b>Significance</b>
	H	L	L	H	L	H
<b>Mitigated</b>	<b>Severity</b>	<b>Duration</b>	<b>Spatial Scale</b>	<b>Consequence</b>	<b>Probability of Occurrence</b>	<b>Significance</b>
	M	L	L	M	L	M
<b>Conceptual Description of Mitigation Measures</b>	<ul style="list-style-type: none"> <li>An interval between road and sea transportation provides for ample recovery of livestock from handling and transportation stress, while all animal health protocols will be observed. The planned holding facilities at key/strategic locations allows for disease control through a 21 days sheep quarantine program.</li> <li>Equally a fit-to-load assessment practice will be adopted to ensure that only the healthy and strong animals are loaded for the export while the others remains at the holding facility for further care.</li> <li>Strict compliance with the OIE Terrestrial Animal Health Code (TAHC) and other relevant legislations (Animals Protection Act. 71 of 1962) and the Animals Protection Amendment Act. 7 of 1972) is highly recommended in respect to addressing animal welfare concerns</li> <li>Equally, monitoring and reporting to this effect must be timely and in the appropriate form and manner undertaken</li> <li>As with humans, animals can fall ill at any time. The vessels have registered veterinarians who attend to all diseased animals. They have access to all the necessary medication in order to treat the animals on board the vessel.</li> </ul>					

## 5.4.2 IMPACTS ON THE SOCIO-ECONOMIC ENVIRONMENT

Table 18. Environmental Impact: Health and Safety Human both on Land and at Sea

Impact Event	Disturbances to the terrestrial ecology					
Description	Scientific evidence suggests that most common health risks on livestock vessels is related to noxious gases (particularly ammonia, hydrogen sulphide and carbon dioxide) resulting in irritant pollutants that have potential impacts on the comfort and health of both livestock and humans. Further, should there be insufficient ventilation ammonia levels as a result of high animal concentrations of waste cause severe respiratory conditions.					
Nature	Due to the lack of proper protocols, there are risks to the people in the importing countries as well as on-board the vessels. If the long journeys are coupled with poor hygienic conditions, it result in crew exposure to potentially zoonotic disease creating a risk of disease transfer between the animals and the crew.					
<b>Phases:</b> Phases during which sources of terrestrial ecology impacts apply are highlighted below; Significance assessment was carried out on the operational phase which presents a long term risk.						
Construction Phase	Operational Phase		Decommissioning Phase	Post Closure		
N/A	<ul style="list-style-type: none"> <li>Stocking density, feeding and pen management</li> </ul>		N/A	N/A		
Severity	In the unmitigated scenario, the potential risk for the crew to be exposed to zoonotic disease and respiratory condition may be severe. However, with mitigation the severity in this case is low.					
Duration	The Significance of the potential impacts is subject to the proposed operation's life-time, however the identified impact's duration is incidental and short-term.					
Spatial Scale	Low, localized although the affected environment extend the length of the entire transportation route incidents occurrence may be highly localized					
Probability	Very Low, especially given that there are clear guideline and protocols governing health and safety of both the stock and crew on-board the vessels					
Unmitigated	Severity	Duration	Spatial Scale	Consequence	Probability of Occurrence	Significance
	L	L	M	H	L	H
Mitigated	Severity	Duration	Spatial Scale	Consequence	Probability of Occurrence	Significance
	L	L	L	M	L	H
Conceptual Description of Mitigation Measures	<ul style="list-style-type: none"> <li>Strict compliance with the EERP is recommended in respect to managing incidental events;</li> <li>It highly recommended that measures to ensure sufficient ventilation on the vessel are employed in addition to good hygiene management, ppm concentrations for the respective gasses recorded during a given voyage indicate a low risk.</li> <li>On-board, medical emergency facilities must regularly checked and re-filled.</li> <li>Daily observation (monitoring of sheep condition) across each and every deck of the vessel) as indicator of potential system malfunctions is recommended. The daily report includes inter alia: <ul style="list-style-type: none"> <li>- Dry bulb temperature, wet bulb temperature and calculated humidity;</li> <li>- Floor / pad conditions;</li> <li>- Respiration rate;</li> <li>- Panting scores;</li> <li>- Mortalities for each deck, and mortalities for each class of sheep or cattle;</li> <li>- Lambs born and euthanasia.</li> </ul> </li> </ul>					

**Table 19. Impact on the Terrestrial Environment – Traffic and Noise**

<b>Impact Event</b>	<b>Disturbances to the terrestrial ecology</b>					
<b>Description</b>	The two proposed Feedlots facilities could have implications on the nearby noise receptors particularly during the construction and operation phases. However, careful site selection drastically eliminated the impacts as both site are to be located within areas suitably zoned for similar activities.					
<b>Nature</b>	Impacts on the receiving noise receptors is limited mainly to the construction phase when high traffic of earth moving equipment and delivery trucks is expect to frequent the construction site. Noise during the operational phase will be very sporadic once or twice a week when feed delivery and new sheep stock is brought to the feedlots.					
<b>Phases:</b> Phases during which sources of terrestrial ecology impacts apply are highlighted below; Significance assessment was carried out on the operational phase which presents a long term risk						
<b>Construction Phase</b>	<b>Operational Phase</b>	<b>Decommissioning Phase</b>			<b>Post Closure</b>	
<ul style="list-style-type: none"> <li>Land preparation and construction activities</li> <li>Temporary lodging for construction staff</li> </ul>	<ul style="list-style-type: none"> <li>Transportation of sheep by truck / rail</li> <li>Operation and maintenance of the feedlot facility</li> </ul>	<ul style="list-style-type: none"> <li>Structure demolition and ground leveling activities</li> <li>Temporary lodging for decommissioning staff</li> </ul>			N/A	
<b>Severity</b>	Taken together, the disturbances will have a high severity in the unmitigated scenario. In the mitigated scenario, many of these disturbances can be prevented or mitigated to acceptable levels, which reduces the severity to low.					
<b>Duration</b>	The Significance of the potential impacts is subject to the proposed operation’s life-time, however the identified impact’s duration is incidental and short-term.					
<b>Spatial Scale</b>	Low, localized although cumulative as haulage along the designated routes may lead to increased traffic. The noise aspect is mainly limited to the feedlot facility site which far from residential areas.					
<b>Probability</b>	Very Low, the only noisy activities associated with the proposed operation are limited to the construction and decommissioning					
<b>Unmitigated</b>	<b>Severity</b>	<b>Duration</b>	<b>Spatial Scale</b>	<b>Consequence</b>	<b>Probability of Occurrence</b>	<b>Significance</b>
	L	L	L	M	L	H
<b>Mitigated</b>	<b>Severity</b>	<b>Duration</b>	<b>Spatial Scale</b>	<b>Consequence</b>	<b>Probability of Occurrence</b>	<b>Significance</b>
	L	L	L	L	L	H
<b>Conceptual Description of Mitigation Measures</b>	<ul style="list-style-type: none"> <li>Strict compliance with the EERP is recommended in respect to managing incidental events;</li> <li>Noise complaint register must be kept and maintained regularly with mitigation measures adopted accordingly.</li> <li>All excessive noise generating activities must be strictly carried out during the day between 08h00 (am) and 17h00 (pm) week days only.</li> <li>Conditions of the Environmental Clearance Certificate and Landlord code of conduct at the port must be accordingly adhere to.</li> </ul>					



**Table 20. Impact on the Terrestrial Environment – Air Quality and Nuisance**

<b>Impact Event</b>	<b>Disturbances to the terrestrial ecology</b>					
<b>Description</b>	One environmental downside of feedlots is that the way they concentrate and store manure often leads to high levels of local air and water pollution. In terms of air pollution and nuisance (Odour) to surrounding receptors, the generation of animal manure is a possible concern.					
<b>Nature</b>	Manure generation in livestock feedlot facility presents, depending on environmental factors such as geographical and climatic condition a number of concerns relating to release of odour and dust pollution. These particularly attributed to the confined nature of sheep handling and stockpiling of manure which if exposed to extended period of wet weather it generate odour.					
<b>Phases:</b> Phases during which sources of terrestrial ecology impacts apply are highlighted below; Significance assessment was carried out on the operational phase which presents a long term risk.						
<b>Construction Phase</b>	<b>Operational Phase</b>	<b>Decommissioning Phase</b>			<b>Post Closure</b>	
<ul style="list-style-type: none"> <li>Land preparation and construction activities</li> <li>Temporary lodging for construction staff</li> </ul>	<ul style="list-style-type: none"> <li>Handling of sheep during feeding and or vaccination activities</li> <li>maintenance of the feedlot facility i.e. scrapping of animal manure from pens</li> </ul>	<ul style="list-style-type: none"> <li>Structure demolition and ground leveling activities</li> <li>Temporary lodging for decommissioning staff</li> </ul>			N/A	
<b>Severity</b>	Severity is Low, disturbances relating to dust generation is rare in feedlots facilities, and given the dry Karas Region climate, sheep manure dries out quickly and thus eliminating potential release of odour.					
<b>Duration</b>	The Significance of the potential impacts is subject to the proposed operation’s life-time, however the identified impact’s duration is incidental and short-term.					
<b>Spatial Scale</b>	Medium, although chances of dust generation are very low, the region in general is prone large wind events which could blow both the dust and odour further towards sensitive receptors.					
<b>Probability</b>	Very Low, the nature of operation significantly limits dust generation while odour is reduced by the dry climatic conditions with prevent moisture in manure.					
<b>Unmitigated</b>	<b>Severity</b>	<b>Duration</b>	<b>Spatial Scale</b>	<b>Consequence</b>	<b>Probability of Occurrence</b>	<b>Significance</b>
	L	L	M	L	L	M
<b>Mitigated</b>	<b>Severity</b>	<b>Duration</b>	<b>Spatial Scale</b>	<b>Consequence</b>	<b>Probability of Occurrence</b>	<b>Significance</b>
	L	L	L	L	L	L
<b>Conceptual Description of Mitigation Measures</b>	<ul style="list-style-type: none"> <li>Strict compliance with the EERP is recommended in respect to managing incidental events;</li> <li>Dust and odour suppression measures must be strictly observed as necessary and particularly during the construction and operation phases</li> <li>A stakeholder complaint register must be kept and maintained regularly with mitigation measures adopted accordingly, recording all sources of ordour and or dust and areas mostly affected by these impacts.</li> </ul>					

**Table 21. Impact on the Economic Aspect**

<b>Impact Event</b>	<b>Disturbances on social and economic aspects</b>					
<b>Description</b>	Potential economic gains that may never be realized if the proposed project activities does not go-ahead include: loss in income for both TransNamib and NamPort, unemployment and the loss of socio-economic benefits derived from current and future export and import trading opportunities.					
<b>Nature</b>	Impacts relating to the of the local socio-economic activities may arise from increased TransNamib and NamPort operational activities in relation to the export of live sheep through Lüderitz resulting in employment (positively) and noise (potential negative on residence and tourism).					
<b>Phases:</b> Phases during which sources of terrestrial ecology impacts apply are highlighted below; Significance assessment was carried out on the operational phase which presents a long term risk.						
<b>Construction Phase</b>	<b>Operational Phase</b>	<b>Decommissioning Phase</b>			<b>Post Closure</b>	
<ul style="list-style-type: none"> <li>Land preparation and construction activities</li> </ul>	<ul style="list-style-type: none"> <li>Transportation of commodities by rail</li> <li>Handling of wagons / containers at the Port</li> </ul>	<ul style="list-style-type: none"> <li>Structure demolition and ground leveling activities</li> </ul>			<ul style="list-style-type: none"> <li>Retrenchments, retirement and job losses due to closure</li> </ul>	
<b>Severity</b>	In the unmitigated scenario, this implies in the case where the activity take not take effect, no economic benefits shall realize hence, the severity in respect to unemployment shall be very high. However, with the implementation of the proposed operations, the severity of unemployment shall be reduced to medium.					
<b>Duration</b>	The Significance of the potential impacts is subject to the proposed operation’s life-time, with a long-term potential					
<b>Spatial Scale</b>	Low, localized and only limited to the two towns (Lüderitz and Keetmanshoop)					
<b>Probability</b>	Medium to High probability in respect to job creation on both the temporary during construction phase of Feedlots facilities and long-term during operation phase					
<b>Unmitigated</b>	Severity	Duration	Spatial Scale	Consequence	Probability of Occurrence	Significance
	<b>H</b>	<b>L</b>	<b>L</b>	<b>L</b>	<b>L</b>	<b>L</b>
<b>Mitigated</b>	Severity	Duration	Spatial Scale	Consequence	Probability of Occurrence	Significance
	<b>L</b>	<b>M+</b>	<b>M+</b>	<b>H+</b>	<b>H+</b>	<b>H+</b>
<b>Conceptual Description of Mitigation Measures</b>	<ul style="list-style-type: none"> <li>It is critical that timely and continuous communication and dissemination of information with the local community is ensured to alleviate potential sense of social marginalization, drive gender equality and enhance the understanding and perception of the benefits associated with TradePort Namibia’s operations</li> <li>To enhance the positive impacts relating to marginal net benefits for the micro-economy (local citizens of Keetmanshoop, Aus and Lüderitz) and national economy at larger, legislative provisions to Affirmative Action and Labour Welfare must be observed</li> </ul>					