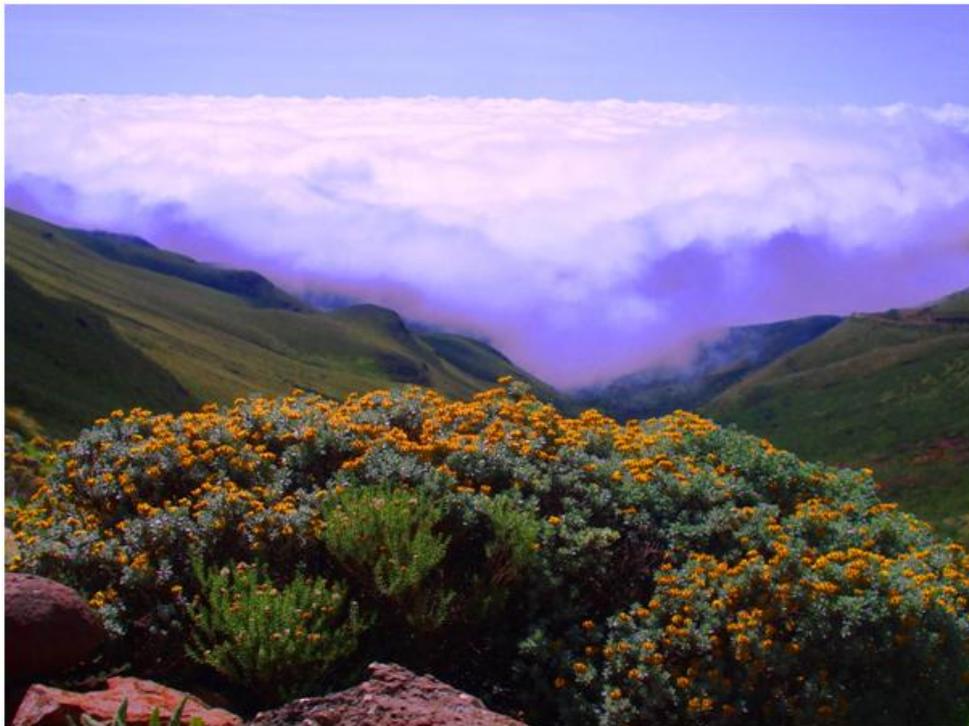


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ASSESSMENT REPORT: Economic Impacts

EIA for Upgrading of the Sani Pass Road (P318) Phase 2



Revised 20 August 2009
Prepared for ARCUS GIBB
By African Development Economic Consultants (pty) Ltd (ADEC)

Photo Credit: View from Sani Pass by ADEC

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INTRODUCTION

This report provides findings on economic impacts from the Assessment Phase of the Environmental Impact Assessment (EIA) for Phase 2 upgrading of the P318 (Sani Pass Road). Key issues relate to the impact of road improvements on the adventure and eco-tourism experience that drives much of the existing tourism economic base. That experience depends on spectacular scenic views, challenging road conditions, and a natural environment relatively untouched by commercial development. Also important are impacts on cross-border commercial trade, transshipment of Mokhotlong District wool & mohair, and commuter traffic from Lesotho.

The Economic Scoping Report prepared earlier for this EIA provided a description of the proposed programme and economic rationale for the project. Key questions identified by the Scoping Report related to tourism, transport of goods and people, and spin-off development. The Scoping Report also provided a Status Quo Assessment of economic conditions within an impact area limited at that time to areas along the Sani Pass Corridor in kwaZulu-Natal, with secondary “downstream” impacts in key business centres. That impact area has since been amended to include portions of Lesotho. The Status Quo Assessment reviewed the existing economic (and specifically, tourism) base in the impact area. The role of the Sani Pass Road infrastructure in area tourism was defined based in part on prior surveys, and that role has been refined further through interviews and site reconnaissance in the Assessment Phase.

Section 1 of this Assessment Phase report provides a summary of the overall economic impact methodology and key assumptions. Section 2 briefly summarizes the policy context for local economic development within the region. Section 3 summarizes the detailed assessment of existing tourism activities, overall tourism flow, and key trends within the impact area's existing tourism base. Section 4 provides a more detailed assessment of the impact area's agricultural base. An analysis of existing cross-border trade is presented in Section 5. Finally, key findings from the economic impact assessment for upgrading the Sani Pass Road under different scenarios are presented in Section 6. The report also includes appendices with tables containing additional detailed information.

Acknowledgment

This Assessment Phase report benefited from valuable input from role players in the tourism, agriculture, and commercial trading sectors in Underberg and Himeville in kwaZulu-Natal, as well as those in Mokhotlong District (Lesotho). In particular, ADEC appreciates the input provided by Kobus van der Berg, Chairman of the Southern Drakensberg Community Tourism Association; Russell Suchett, Director, Sani Lodge; Michael Clarke,

Curator, Himeville Fort & Museum; Captain Khumalo, Commander & Head of Operations, Sani Pass Border Post; Dudley Smith, Ingwe Municipality; Vik Cummins, District Superintendent, KZN Provincial Department of Roads & Transport; Brad du Toit, General Manager, Sani Pass Hotel; Rob Gooderson, General Manager, Drakensberg Gardens Hotel; Sheldon English, General Manager, Bushmans Nek Hotel and Ms. Malerato Phakisi, Administration Manager, Mokhotlong District Council. ADEC also appreciates the input provided by the many tour operators, lodging facility managers, and other businesspeople who contributed to the study from throughout the region.

Section 1. METHODOLOGY & KEY ASSUMPTIONS

This section provides an overview of the methodology and key assumptions used in the economic impact analysis of the Phase 2 upgrading of the Sani Pass Road (P318). The approach for this analysis had to respond to the basic economic rationale for the project, as presented by Government. As such, the economic rationale and key questions for the impact study are revisited below, based on the outcome of the Scoping Report. A description of the basic approach and overall methodology follows from the economic rationale discussed below.

Economic Rationale & Impact Questions

As stated in the Scoping Report, Government has provided an economic rationale in support of the proposed improvements to the Sani Pass (P318). Government asserts that *“provision of an all weather road through the pass will better link the Mokhotlong area to the businesses in Underberg and stimulate trade between the two centres... [and that] a new scenic tourism route will be opened up between the eastern Free State and KwaZulu-Natal via Lesotho.”*¹ Government also suggests that *“the Eastern Lesotho Highlands will be opened for tourism development.”*²

Key Questions

Based on the Government rationale, and on the input from stakeholders provided during the Scoping Phase, it was determined that the economic impact assessment should focus on several key questions. Among stakeholders, there was a concern that upgrading of the road would negatively impact on the marketability of the area for adventure and eco-tourism, which currently depend on a “rough” 4x4 experience. There was also the concern that upgrading the road would lead to pressures for more commercial development within sensitive tourism areas. Clearly, the economic impact assessment would need to determine whether or not these types of impacts are likely to occur; and if so, would these impacts necessarily lead to a loss of turnover, income, and jobs?

At the same time, Government and some stakeholders identified an opportunity in upgrading the road to improve travel logistics and increase trade and tourism between the eastern highlands of Lesotho and the southern Drakensberg of KwaZulu-Natal. Would upgrading the road lead to improved travel conditions and increased opportunities for trade and tourism in the region? Would increased trade translate into increased business viability, turnover, and employment in the region?

¹ ARCUS GIBB (from Department of Transport - Sani Pass Terms of Reference document).

² Ibid.

Ultimately, the economic impact assessment should provide perspective on the relative economic costs and benefits of the project and of each of the various road alternatives. It is important to answer the question: Will the “cumulative” or net economic impact (cost-benefit) of the project will be positive or negative? Also, which alternative provides the most economic benefits for the least economic cost (the highest net cost-benefit)? Particular attention is paid in the end to whether Alternative 5, which Government has indicated as the “preferred” alternative, generates the highest ratio of benefits to costs. Measures of net cost-benefit provide an indication of the viability of the project within the socio-economic context. And, if the economic impact is negative, then is it so significant an impact as to be a “fatal flaw” to prevent the project from moving forward? Or, are there mitigation measures that can be taken to reduce or eliminate the negative impacts? Similarly, if there is a positive impact from the project, then what measures would help to maximise those benefits to the community?

Exclusions

The economic rationale presented by Government for Phase 2 has focused on the development of trade and tourism within the region between Mokhotlong and Underberg. Since the upgrading is being done in phases, the EIA process is not meant to examine impacts of the entire road project (from Free State through to kwaZulu-Natal) but rather, the impact of the current proposed phase. As such, the impacts of Phase 2 are not considered with respect to the transportation benefits that accrue to the completion of the entire road project.

Assumptions made with respect to the financial “viability” of the road are sometimes tested as part of an economic impact assessment. However, no information has been presented to the consultants indicating findings from a viability assessment for this project. As such, the consultants cannot comment fully on the “financial” viability of the road. However, the consultants do examine the economic cost-benefits as delineated above.

Another perspective on economic impacts can be provided by examining the costs and benefits of environmental externalities. However, an assessment of externalities can only occur once the environmental impacts have been identified and such information is provided to the economist. Such assessment may be appropriate at a later stage in the project EIA cycle.

Approach & Basic Methodology

Government has focused on the role of the road in increasing trade and tourism. The Scoping Report noted that the regional economic base is driven largely by agriculture, tourism, and trade. Given the structure of the regional economic base and the economic rationale presented by Government, the approach of this assessment is to focus on the project’s economic impacts on agriculture, trade, transport, and tourism, along with

associated support industries. The construction of the road would have direct impacts on turnover and employment in the construction sector, so the assessment also examines impacts to construction. The various sectors are also interrelated, and there are “downstream” impacts from one industry to another. These overall impacts are estimated for the Impact Area as defined in the Scoping Phase and refined in this Assessment Phase.

The analyses and findings contained in this Assessment Phase report are thus organized around the most relevant **economic sectors** and their respective sub-sectors. The most relevant sectors and their respective sub-sectors are outlined below.

- Tourism
 - Tour/Transport Operators
 - Lodging Facilities
 - Tourist-Related Retail Trade
- Agriculture
 - Dairy
 - Potatoes
 - Beef
 - Timber
 - Sheep
 - Wool & Mohair Products
- Cross-Border Trade
 - Consumer Retail (e.g., Mokhotlong commuters)
 - Commercial Trade (e.g., suppliers)
- Transport (e.g., taxis - integrated with trade and tourism)
- Construction (project-related)

Baseline Assessments

An economic base assessment was conducted for each of these sectors and relevant sub-sectors, in order to understand existing economic conditions within the impact area. The base assessment drew upon data and information from both primary and secondary sources. Primary sources included interviews, field reconnaissance, and other input collected directly by the consultant. Secondary sources included Government statistical data, reports, and studies. These sources are discussed in more detail throughout the report.

Ultimately, the impacts of the road project were measured in terms of changes that may be caused by the project to these existing economic conditions. The base assessment does not, in itself, indicate impacts. It is only meant to catalogue existing economic conditions and trends that are relevant to the impact analysis.

Market Indicators

As a basis for determining impacts, the consultants have employed a market-based approach. In this approach, there is a focus on how the road project will change the market conditions for various existing economic

activities (particularly in the agriculture, tourism, transport, and trade sectors) in the impact area. The consultants also identified economic opportunities for tourism and downstream production or trade that may not already exist in the regional economy. However, it should be noted that the consultants did not conduct a full Market Potentials Analysis, and that such assessments may be necessary in order to fully explore questions of economic potential.

There are various indicators used to measure the impacts of the project on economic activities. The primary indicators are turnover (or output), employment, and income. However, several intermediary analyses are used to derive these indicators for each of the economic sectors and sub-sectors.

For example, lodging impacts are partly a function of the number of tourists, but also of the occupancy rate (translated into “roomnights” or “bednights”). Occupancy is a strong indicator of the health of the lodging market. If hotel occupancy is high, then lodging operators generally see higher financial returns and they hire more workers. Thus, the project’s lodging impacts are measured in terms of occupancy, translated into turnover and employment.

The number of tourists provides an indication of the size of the tourism market. But such numbers are only intermediary indicators. The number of tourists, by itself, is not necessarily a measure of economic impact. For example, a 100% growth in the number of tourists does not necessarily translate into increased revenues for tourism operators nor increased employment for area residents. Tourists who travel along Sani Pass but do not use the services of local tour operators, stay at local hotels, eat at local restaurants, fuel at local stations, or purchase retail goods or services locally, do not add significant economic value to the local economic base. Only those tourists who spend locally contribute economic benefits to the local economy. For lodging, it is not the number of tourists necessarily, but rather the increase or decrease in room occupancy and pricing that affects turnover and employment.

Economic Cost-Benefit

Overall, the consultants use measures of volume (e.g., attendance, occupancy, etc), which are then translated into business turnover as the primary indicator of impact. Turnover is also translated into employment and wage & salary income, which are also primary indicators. The consultants express these impacts in terms of net economic cost-benefits, so they can be either negative or positive. Both negative and positive impacts are identified and examined. In some cases, the consultants have identified potential “off-sets” or positive new developments (such as new tour concepts) that could be developed to off-set the negative impacts on a particular sector. However, the scope of this assignment did not include market projections or feasibility assessments for major new projects, products, or industries in the region.

These positive and negative impacts are added together in order to determine the **net cost-benefit**. Thus, upgrading the road may have a negative impact on the turnover of certain businesses within a specific sector, but a positive impact on the turnover of other businesses within that sector. The negative and positive impacts are cumulated (added together) in order to derive the net cost-benefit on turnover within the sector. These measures are taken together for all sectors to describe the overall economic cost or benefit ("impact") of the project.

Because there are various diverse stakeholders within the regional economy, the consultants also examine the distribution of impacts between economic sectors and sub-sectors, in order to identify and describe the recipients and breadth of the impacts. The various sectors are integrated and inherently linked. For example, transport is an integral part of both tourism and trade. Mitigation measures are recommended that may help to reduce negative impacts concentrated on any one sector or sub-sector. The economic cost-benefits are then placed into a ranking format that is consistent with those used for the other types of impacts measured as input to the EIA.

Key Assumptions

Economics requires the use of numerous assumptions in order to determine how the market will react to changes in the economic environment, in this case, the upgrading of road infrastructure. Changes in infrastructure are assumed to lead to changes in the behaviour of the market (consumers and suppliers), which in turn lead to changes in turnover, output, employment, and income. Several key assumptions are discussed below as they relate to the specific market indicators used in this analysis.

Sani Pass Road Conditions

Clearly, a number of economic impacts revolve around the question of how a change in Sani Pass road conditions will impact on the behaviour of the market for trade and tourism. It was imperative that assumptions be clear on the extent and type of changes that would be made to the Sani Pass road, since it is the conditions themselves that appear to drive (or limit) certain types of trade and tourism in the region.

The proposed road upgrades have been delineated by engineers in the Scoping Phase Report for each of six alternatives. The economists have relied on these descriptions as the basis for determining how changes in road conditions may elicit a market response. However, even the detailed descriptions in the Scoping Report cannot illustrate a visceral "sensory" impact of these changes on the existing road environment. As such, the economist had to make certain assumptions with respect to visual and other sensory aspects of the road alternatives. The primary assumptions relate to the impact of various surfacing materials, as follows:

1. Gravel: assumes sedimentary and other material of similar standard to that which has been used on the road in previous years and at present. In general, it is assumed that gravel would gradually “blend” in colour with the surrounding environment as it mixes with soil, flora, and other material found naturally along the road. The visceral (visual and physical) experience would not change dramatically with use of gravel. (Although the experience can change through use of other engineering improvements). Use of gravel is retained in alternatives 1, 2, 3 and part of 4.
2. Hard Surfacing: The engineers note that hard surfacing would be implemented through use of either a “concrete surface, asphalt or chip and spray, or a combination of the three depending on the section of the road.” The assumption here is that the visceral experience would change through the use of hard surfacing materials. Visually, it is assumed that the road would be perceived as “smoother” and easier to travel by non-4x4 vehicles. It is assumed that none of the three materials will closely resemble the current visual conditions of the road. Nevertheless, it is assumed that “natural” colours of concrete could be used to reduce the differentiation between the road and the surrounding natural environment. However, the use of hard surfacing material (assuming it is well-maintained) would generate a much smoother ride and would therefore change the physical “visceral” experience of riding on the road from its current “rough” and bumpy state to a relatively smooth one. Hard surfacing is used in alternatives 4 (up to 25km), 5, and 6.

In order to better understand the relative impacts of these various road surfaces on tourism, the economists examined comparable adventure- and eco-tourist oriented roadways worldwide. Some of these roads are discussed in the body of this report. Ultimately, however, it was determined that a key change in the tourism market would be the physical ability for non-4x4 vehicles to travel the road.

Sani Pass Road Safety & Logistics

Many of the proposed upgrades are meant to increase travel safety along the Sani Pass Road. The economists rely on the expertise of the engineers, who have designed these improvements with safety as a primary objective. Other assumptions had to be made with respect to how the changes in road surfacing and engineering may impact on truck movements and other large vehicle travel. Such information is important as it directly impacts on transport logistics and regional trade as well as on other large vehicle operations (such as tour buses). These assumptions were made based on input gathered directly from professional transport companies operating in the region.

In general, the transport operators signalled that, while the re-surfacing of the road would make the ride smoother, they were concerned that higher travel speeds would reduce the safety of the road for trucking. In particular, there was a concern about skidding, since the pass has frequent mist and wet

weather conditions. This concern would be alleviated somewhat through the development of skid ramps for trucks throughout the pass, but no such ramps are mentioned as part of the engineering upgrades for the road. On the other hand, new bridges and retaining walls would be designed to help control spin-out. Ultimately, however, the professional operators signalled that they would not increase speed significantly with upgraded conditions, because of their concern in maintaining safety. As such, likely improvements in transport speed and logistics of delivery were not perceived as significant. If the engineering team provide more detailed information on truck safety and anticipated movements to the contrary, then the economists will consider such information in the impact assessment.

Other Road Improvements

It is assumed that there will be no other projects to upgrade or improve roads in the region, including roads that link the Sani Pass Road to parks, reserves, or sites that are currently inaccessible by tourists. This is important in that tourists travelling by car or 4x4 to the Sani Pass cannot easily access key sites in the surrounding region, such as Thabana Ntlenyana. It is assumed that additional road access is not planned in the immediate future.

Development Control

The economists have assumed that no new commercial or other private development would be allowed within the confines of the UNESCO-designated uKhahlamba-Drakensberg World Heritage Site (WHS), or within its designated impact zones. Controls within the world heritage site would presumably help to prevent the type of on-site mass-tourism development feared by tour operators, lodging facilities, and tourists who currently visit the area (as observed in surveys of tourists, summarized in the ADEC Scoping Report). Such controls would also limit the economic benefits of the road upgrade within the WHS, if such upgrades were to lead to increased mass tourism or independent travel through the area.

Macro-Economic Variables

Macro-economic variables are held constant in this assessment. The project is not of the type or scale to impact on macro-economic policy, in terms of money supply, interest rates, and exchange rates. Prices are held constant so as to compare impacts across sectors and against the baseline. All estimates of impact are provided on a stabilised year basis.

Other Assumptions

As noted above, the economists utilize a number of assumptions as part of their analytical work. Many of these assumptions are discussed as appropriate within the text of the report.

Section 2. LED POLICY REVIEW

A review of local economic development (LED) and tourism planning was conducted in order to provide context for the proposed project and its role in the development of the region. Particular focus was given to a review of the current (2009-2010) Integrated Development Plans (IDP) for kwa Sani and Ingwe local municipalities. Neither of these municipalities has a tourism development plan, per se. But both communities include tourism as the main focus of economic development within their respective IDPs. Kwa Sani and Ingwe are located in Sisonke District. Nearby areas include Umkhomazi Wilderness Area, Greater Kokstad, and Impedle Local Municipality. Kwa Sani has two urban areas, namely: Underberg and Himeville. Remaining areas of kwa Sani include Mqatsheni, Enhlanhleni, Stepmore, Ntwasahlobo, Netherby, Ridge, Kwa Pitela, and Kwa Thunzi.

Role of Sani Pass

The Drakensberg-Maluti Transfrontier Tourism Initiative is being promoted by the governments of Lesotho and South Africa to encourage the economic development of the region. Sani Pass Road provides a key link between South Africa and Lesotho for this economic development initiative. The important role of Sani Pass and the uKhahlamba-Drakensberg World Heritage Site in the local tourism economy is also recognised by local government officials. The upgrading of the Sani Pass Road is discussed in the kwa Sani Integrated Development Plan. Beyond this, however, there is little mention in local IDPs of Sani Pass tourism activities or of any initiatives directly related to the uKhahlamba-Drakensberg World Heritage Site. Most tourism development initiatives in the region are oriented to rural areas away from Sani Pass, where there is a perceived need for local economic development efforts to reduce poverty and unemployment.

Planned Anchor Tourism Projects

LED plans for this area centre on tourism, with a focus on missionary heritage and luxury travel accommodation. There are also private plans for housing and retail development. The largest initiative discussed in local LED plans is the Mqatsheni Tourism Node, which would cater for community-based tourism ventures and establish a village-style lodging facility. The concept is proposed as a way of creating tourism jobs and enterprise development opportunities, and enabling growth in kwa Sani's tourism base. Nqatsheni is promoted solely by the local municipality, while several other projects involve partnerships between government and private entities. Each of these initiatives is summarised below.

Mqatsheni Tourism Node

Mqatsheni Tourism Node would be located in Mqatsheni Valley (along the Mqatsheni River, north of Sani Pass). This project has been prioritised as a tourism node within a provincial development corridor. The node would be oriented to community-based ventures featuring a village-style complex of some 20 en-suite chalets, backpacker accommodation for up to 40 people, limited camp sites, restaurant, and central information centre with a small shop. Mqatsheni Valley would also host a number of adventure and education tourism activities³. A study analysing the potential of the project has been completed. Funding is being sought to prepare a Business Plan.

Roman Catholic Mission

Underberg hosts significant Christian missionary history, and lies in a corridor with 15 to 20 Roman Catholic missions that stretch from Mariannahill, (just outside of Pinetown in Durban) to Reichenau mission in Underberg. These missions were built between 1892 and 1910, and are the subject of tourism development projects supported by Ingwe Local Municipality.

The missionary re-development project aims to highlight the self-sufficient character of the old missions through activities presented in a purpose-built workshop. The mission and associated watermill in Reichenau are being restored, and the Municipality hopes to draw tourists to the site. Currently, Reichenau is promoted as a cultural and eco-tourism experience, capitalising on its historic mission, water mill, river trails and Bushman rock art.

Luxury Train

A luxury train excursion is proposed that would link Pietermaritzburg, Underberg, and Kokstad. This 5-star steam-powered luxury train would carry 42 passengers over three days and two nights (Fridays to Mondays). The train primarily targets international tourists (comprising 80 to 90% of the probable market), although there may be some local interest. The trip will be priced at R4,000 per person. Red Carpet Leisure, operators of Sani Pass Hotel, was selected through an Expression of Interest (EOI) process to operate the venture. Transnet donated the trains' coaches. This project is being promoted by Ingwe Local Municipality and is scheduled to commence operation in November 2009.

Other Development Initiatives

There are several other development initiatives being explored by the local municipalities or private interests, beyond those targeted above. These initiatives are discussed below. In meetings with the consultants, local

³Integrated Development Plan 2009-2010, Kwa Sani Local Municipality, Sisonke District, Kwazulu-Natal

businesses have also expressed different priorities and needs from those indicated by Government. In particular, they expressed the need for upgrading of local urban roads and infrastructure (e.g., water/sewer) in areas like Lower Lotheni - Nottingham Road to Underberg, but such projects are not included in the IDP.

Rural Cultural Experience

A Rural Cultural Node is planned for Netherby, Ntwasahlobo, and Ridge, located in Mkhomozana Valley (north east of Kwa Sani). This project would be built around heritage and natural assets, and would include local resident accommodation, rock art, hiking trails, and fishing facilities. No feasibility study of this project has been conducted to date.

Rural Agriculture

Intensive small-scale farming is being considered as a way of assuring food security for rural communities, in light of rising food and fuel prices. The potential for specific agricultural products (i.e. maize, veggies, potatoes & poultry) has been discussed but has not yet been investigated. Funding is being sought for assessment and implementation.

Stepmore Administrative/Retail Node

Stepmore, a community located to the north-east, is envisioned as an administrative and retail service centre. A feasibility study was completed and funding has been secured from KZN Department of Economic Development to implement the project.

Underberg Village Mall

A second phase of the Underberg Village Mall building was approved, to include 7,800 square metres of retail space on Portions 2 & 3. The owner/developer is seeking tenants including a doctor, pharmacy, butchery, and optometrist to locate at the mall. A car wash is planned, and depending on civil works application, work is expected to commence soon.

Retirement Housing Development

The owners of Underberg Village Mall are planning to build a retirement home adjacent to the mall, on a site measuring approximately 5.8 hectares. This is part of a larger parcel of land that includes the mall. Actual construction is expected to begin in the next 18 to 25 months (as of May 2009), with selling of stands commencing earlier.

Summary

Tourism and agriculture are recognized as the core economic sectors for economic growth within the region. Specific tourism projects have been identified and are being pursued. The Upgrade of Sani Pass Road is listed in

the 2009-2010 kwa Sani IDP, but there are no other projects mentioned that relate directly to the Sani Pass or uKhahlamba-Drakensberg World Heritage Site. Several tourism and other development projects in the greater kwa Sani region and remote to Sani Pass Road are being pursued, mainly by private entities. Agriculture is well established in the area and local economic development initiatives are proposed that would promote food security through sustainable micro-agriculture.

Section 3. TOURISM BASE ASSESSMENT

This section provides a more detailed assessment of the existing tourism base within the refined impact area, including an analysis of tourism activities, overall tourism flow, and trends in the tourism economy. Tourism is a key driver of the regional economy, anchored by the uKhahlamba-Drakensberg Park, a UNESCO-designated World Heritage Site. The Sani Pass Road plays an important role in the overall tourism experience. However, it is important to understand the existing tourism base before assigning impacts to changes in the Sani Pass Road (R318).

Refined Impact Area

The Scoping Report defined a “primary” Impact Area along the Sani Pass Road (P318) Corridor, Cobham State Forest, and associated access routes leading to the P318 within kwaZulu-Natal. Nearby kwa Sani communities such as Underberg and Himeville to the south and east are also included in this Impact Area. Since the completion of the Scoping Report, the Impact Area has been extended to include areas along the road through to Mokhotlong in Lesotho. Overall, the Impact Area is situated in the southern Drakensberg region of kwaZulu-Natal (including uKhahlamba-Drakensberg World Heritage Site) and the Mokhotlong District in Lesotho.

The Primary Impact Area occupies portions of the Drakensberg-Maluti Transfrontier Tourism Initiative. As noted previously, this initiative is being promoted by the governments of Lesotho and South Africa to encourage the economic development of the region. Sani Pass Road provides a key link between South Africa and Lesotho for this economic development initiative. Other relevant aspects of the impact area are described below.

Key Access Roads

Sani Pass Road connects Underberg and Himeville with the A31 through Mokhotlong District to the town of Mokhotlong in Lesotho. Regional access in the rest of the Southern Drakensberg region is provided by the R617, which links with the N3 towards the east and to the N2 in the south. The Nottingham Road travels along the eastern foothills of the Drakensberg, providing alternative access to the N3. Nottingham provides the gateway for the Midlands Meander.

The main access routes in Mokhotlong District are the A31 and the A4. Both are unpaved dirt roads with conditions similar to Sani Pass in certain mountainous sections (especially along the A31). The A31 provides a direct link to Mokhotlong and passes through mountainous terrain. There is very limited settlement along the A31. The A4 provides access to Sehlabathebe National Park via the A3 from Mokhotlong Town and Thaba-Tseka.

Existing Economic Uses

The Southern Drakensberg economy is characterised by adventure- and eco- tourism activities, commercial trading, primary agriculture (dairy, beef, potatoes, timber, and sheep, sporting activity, and events). Mokhotlong has a similar economic base but with a slightly different focus, characterised by primary agriculture (wool and mohair), *cultural* and eco-tourism (Maluti Mountains), and commercial trading (concentrated in Mokhotlong town). The uKhahlamba-Drakensberg World Heritage Site is a key tourism anchor for the region, but there is little structured economic activity (other than mobile tours) based within the borders of the park itself.

Travel Patterns

The Impact Area is characterised by two major travel patterns. There is a flow of foreign and domestic tourists into the Southern Drakensberg via the N3 and the R617 from Howick, and Nottingham. The majority of these travellers are Sani Pass adventure tourists en route to Underberg, Himeville, and surrounds and through Sani Pass into Lesotho for a brief cross-border excursion. A smaller number of these tourists continue for several days into eastern Lesotho for a cultural tourism experience, before returning to KZN. The second movement includes Basotho commuters and traders/truckers who descend Sani Pass to Underberg and Pietermaritzburg in order to purchase retail goods and services. Basotho commuters constitute a significant proportion of cross border people traffic.

A smaller niche of eco-tourists travels from Underberg/Himeville and surrounds up Sani Pass into the Maluti Mountains on extended flower and birding tours. These constitute specialised tourist visits, and travellers return to KZN after completing their expedition. Mokhotlong District is less-oriented than KZN toward Sani Pass. Virtually all signage along the road through the district is eastward facing. This suggests that official tourism marketing in Lesotho targets west-bound traffic. The exception is signage close to Sani Top, which is westward facing.

Sani Pass Border Post Traffic

There were a total 121,244 trips through the Sani Pass Border Post (Himeville) in 2008-09. This number included about 65,000 out-bound trips and 57,000 in-bound. These trips were made primarily by foreign tourists, domestic South African tourists, commercial traders, various suppliers, and “economic tourists” or consumers from Lesotho to South Africa. The total number of trips increased 165% between 2006 and 2009. At the same time, the number of vehicles declined by almost 18% during this same period. There are fewer outbound vehicles, suggesting that a larger share of tourists is travelling in groups. However, the number of in-bound vehicles increased by almost 11% during this period, suggesting that there are more commuters travelling through the border from Lesotho. Economic commuters from

Lesotho account for a significant proportion of total border crossings. These “economic tourists” are discussed in the section on Cross Border Trade, later in this report.

Vehicular traffic travelling through Sani Pass is restricted to the use of 4x4s (SUVs, taxis, and trucks) plus mountain bikes. Foreign tourists mostly travel in organised 4x4 tours in parties of two to eight passengers, while domestic tourists drive their own 4x4s. Commuters and traders from/to Lesotho travel in 4x4 taxis, trucks, and bakkies. Passenger and vehicle trends through the Sani Pass border are summarised below.

Table 1. PASSENGER & VEHICLE TRENDS, SANI PASS BORDER CONTROL, IMPACT AREA, 2006-2009

	2006/07	2007/08	2008/09	Change 2006-2009		
				Number	Percent	Per Year
Departure (People)	20,872	34,852	64,686	43,814	209.9%	70.0%
Departure (Vehicles)	17,132	10,367	11,410	(5,722)	-33.4%	-11.1%
Arrivals (People)	24,904	39,439	56,558	31,654	127.1%	42.4%
Arrivals (Vehicle)	9,490	9,949	10,507	1,017	10.7%	3.6%
TOTAL (Departures + Arrivals)						
People	45,776	74,291	121,244	75,468	164.9%	55.0%
Vehicles	26,622	20,316	21,917	(4,705)	-17.7%	-5.9%

Notes: Data for 2006-2008 collected by phone in August 2008. Data for April 2008 to March 2009 based on official computerised records.

Sources: SAP Sani Pass Border Post, Kwa Sani Local Municipality and African Development Economic Consultants (pty) Ltd.

Official Regional Visitor Counts

The Southern Drakensberg Tourist Office (SDTO) in kwa Sani Local Municipality has estimated a total of 84,180 visitors to the Southern Drakensberg region in 2008. These numbers are meant to include all visitors to the region, and not just tourists using the Sani Pass Road. The SDTO only began collecting this information in 2007, so it would not be possible to examine long-term trends. However, initial data from 2009, if annualised, suggest that tourism is up by about 3.5% over last year.⁴

The SDTO information provides one perspective on the existing regional tourism market. However, ADEC has not relied on the SDTO database as a basis for the impact assessment. Rather, the consultants have developed their own baseline inventory and collected data from interviews and other primary sources in order to estimate the current tourism flow through the region and through the Sani Pass Impact Area, specifically.

⁴ Southern Drakensberg Tourist Office, kwa Sani Local Municipality, 2007-09 visitor data.

Visitor Origin. The SDTO data suggest that domestic visitors accounted for about 62.3% of the region's overall tourism base in 2008, whilst foreign tourists account for 37.7%.⁵ Again, these data relate to travel throughout the Southern Drakensberg region and not specifically to Sani Pass.

Purpose of Visit. According to data from the SDTO, holiday travel accounts for about 70% of total tourist traffic in the region. Those travelling to attend events account for 30% of the total.⁶ It is not clear why these numbers do not account for business travel, which does generate a share of the visitor base. Holiday travellers are most likely to embark on adventure tours through Sani Pass. About 17,400 people are expected to attend sporting activities and events in the area in 2009, according to the SDTO. Although events are a driver for regional tourism, this segment of the market is mainly relevant because a few events specifically target the use of the Sani Pass, such as 4X4 motorsport and mountain quad biking races. Otherwise, regional event attendance includes local residents, day trippers, and others outside of the Sani Pass Impact Area. Events are discussed in more detail later in this section.

Tours, Events, & Visitor Attractions

This region is home to the uKhahlamba-Drakensberg Park, a designated World Heritage Site (WHS). The park, along with other attractions, help drive tourism in the broader region. Sample tour routes, visitor attractions, and events are described below for both the Southern Drakensberg region of kwaZulu-Natal and the Mokhotlong District of Lesotho.

Southern Drakensberg Region (KZN)

The Southern Drakensberg offers a diverse set of visitor attractions oriented to the region's rich natural resource base and cultural heritage. A number of events, especially those associated with sporting and adventure, are also held in this region. Key Southern Drakensberg attractions are summarised below.

Sani Pass Valley. Sani Pass Valley is one of the region's major destinations for adventure and eco-tourism. The pass is set within the uKhahlamba-Drakensberg Park WHS. The park conserves a diverse ecosystem with a wide variety of indigenous plants, frogs, birds, flowers, and chameleons that are endemic to the region. The area holds no fauna known to be dangerous to humans, and is fairly accessible for both adventure drives and for tourists using hiking and walking trails. Sani Pass offerings focus on the following:

⁵ Ibid.

⁶ Ibid.

Sani Pass Adventure. The Sani Pass road adventure is encapsulated in the winding rough and tumble drive through Sani Pass. The most exciting part of the adventure incorporates the last eight kilometres from the Sani Pass Border Post to Sani Top on the Lesotho/South Africa border. Foreign and domestic tourists tour the Sani Pass in large measure for the adventure experience and spectacular, unspoilt vistas. Some of these visitors utilise the services of experienced, professional tour operators; whilst others drive the Sani Pass Road as independent travellers.

Hiking & Biking Trails. The Sani Pass Valley and nearby areas are home to unique cultural and environmental heritage. Visitors access many of these sites through hiking and biking trails (see below) from the main roads.

Flora, Bird Life & Geology. The region hosts unique flowers, grasses and other vegetation, birds, and geological features. These are of interest to tourists who use hiking trails throughout the Impact Area.

Key hiking destinations include Cobham Nature Reserve, Giant's Castle, Hodgson's Peak (Sani Top), and Lotheni Nature Reserve. Local hikers often embark on full-day trips, and do not necessarily stay overnight in the area.

Bushman Rock Art. The UDP is home to significant cultural heritage in the form of Bushman rock art and paintings. There are numerous rock art sites located throughout the park and within Lesotho. Himeville and Underberg are reputed to have around 300 rock art sites. These sites are marketed as part of daily Sani Pass Tours to Sani Top, and as part of short excursions into Lesotho's Skering Village and Thabana Ntlenyana Peak. Local hiking clubs also conduct day visits to these sites (see below). There are likely to be more sites yet to be discovered.

Traditional Healer Craft (Lotheni Village). Many tourists seek face-to-face interaction with a Sangoma (traditional healer) based at Lotheni, about 48 kilometres from Himeville on the Nottingham Road. Foreign tourists staying overnight at Sani Pass Hotel and Bushmans Nek Hotel dominate these visits.

Himeville Fort & Museum. The Himeville Museum, located off of the R617 along the main road through Himeville, is housed in the last loop-holed fort built in South Africa. The fort was converted into a prison in 1902 when it came under the jurisdiction of Natal Mounted Police. The prison was subsequently closed, and in 1981, the Historical Society of South Africa



converted the building into a museum. The museum is highly-regarded as a rural museum and exhibits a range of memorabilia, including:

- A furnished 1900-style house
- The Cape Cart, a horse-pulled farmer's baakie
- Heritage equipment & tools
- Trout fishing equipment
- Fossils, including the head of a dinosaur from the Umkomaas Valley.
- Replica of a prison cell
- Replica of a settler's room with memorabilia
- A model Post Office & Telephone Exchange
- Beadwork and artefacts from the AmaBhaka community
- Bushman craft and Rock Art, plus a model of Gxalengwenwa Cave
- Relics of the Boer War and the two World Wars

Roman Catholic Missions. Underberg has significant Christian missionary heritage. The town is situated at the end of a corridor with 15 to 20 Roman Catholic missions, starting from Mariannahill (outside Durban) and ending at Reichenau Mission in Underberg. The missions were built between 1892 and 1910, and the local ones form part of a heritage tourism development project supported by Ingwe Local Municipality.

The tourism project aims to highlight the self-sufficient character of the old missions, which provided food, clothing, and shelter for their inhabitants. The mission and adjacent watermill in Reichenau are being restored. Reichenau is being promoted as a cultural and eco-tourism experience, capitalising on the historic mission, watermill, river trails, and Bushman Rock Art.

Sporting Activities & Events. The Impact Area hosts a considerable number of sporting activities and events, some of which utilise portions of uKhahlamba-Drakensberg Park, but not necessarily the Sani Pass. Adventure-oriented events account for about 20% of total event attendance, based on data supplied by organisers. Sporting activities account for about 40% of total attendance and other events (festivals, shows, and fairs) account for about 35%.

Eco-Related Activities. Wild walks, hiking, and fly-fishing activities utilise the Sani Pass and areas throughout the Drakensberg. The 30-member Sani Hiking Club embarks on hikes and walks each weekend, typically with participation by an average of 12 members. The hikes go to Giant's Castle, Cobham Forest, Hodgson's Peak (near Sani Top), and other locations throughout the region. The club only travels up Sani Pass (to Hodgson's Peak) twice per year.

Sporting Events & Races. A number of annual adventure sporting events take place in or near the uKhahlamba-Drakensberg Park (UDP), but few currently utilise Sani Pass due to the harsh conditions of the road. The motorised Drak 250 Off-Road Race as well as the Drak MTB Xperience are run from Underberg Country Club to the R617 in the direction of Swartberg

and back. The Subaru Sani2C is a 24-hour, non-stop 210-kilometre endurance bike race that starts in the foothills of the Southern Drakensberg, and proceeds through rolling hills and valleys to the Indian Ocean beach at Scottsburg. Other sporting events take place in the towns of Underberg and Himeville and are therefore somewhat removed from the Sani Pass Road itself. Drak Challenge Adventure (a paddle race) is now in its 12th year of operation. A polo event generates high attendance. The Southern Drakensberg Community Tourism Association (SDCTO) plans to increase the event offering as a marketing tool and ensure that at least one sporting activity or event takes place every weekend in the area.

Mokhotlong District (Lesotho)

Visitor attractions in Mokhotlong District are primarily culture and sports-oriented, with little marketing of natural attractions or environmental heritage. Tourist attractions and tour routes in Mokhotlong District are described below.

Lesotho Cross Border Excursions. Short cross-border day-trip tours excursions from KZN into Lesotho are conducted to two villages and Thabana Ntlenyana peak, as part of the Sani Pass Adventure tours (see above). These excursions include the following components.

Lesotho Border Village Visit. Tours are conducted up Sani Pass, with brief stops to view birds, animals, flowers, and geological features while recounting background stories and history. These tours cross into Lesotho for a brief stopover at Sani Top village on the Lesotho/South Africa border, and then continue through Sani Flats to Skering Village, ten kilometres into Lesotho. In Skering Village, tourists call at a rondavel where a villager provides "joala," a local beer, and then they visit a sheep-shearing shed. From there, tours drive to the top of Kotisepola Pass for lunch and a view of Thabana Ntlenyana (the highest point in Southern Africa).

Thabana Ntlenyana Peak Hiking Trail. Thabana Ntlenyana is Southern Africa's highest point, towering 3,482 metres above sea level. This site is located close to the western edge of the Drakensberg mountain range, roughly 48 kilometres from the Lesotho/South African border. Tourists hike about 20 kilometres off of the A31 by foot and interact with local farmers. This one-day hike is packaged as an extension of the Sani Pass Adventure (Sani Top Leg). Foreign tourists are the primary market for this hiking trail.

The Lesotho Excursion (village visits & Thabana Ntlenyana trail) ends with a drive back to Sani Top for drinks and descends down Sani Pass to Himeville and Underberg. The round trip from Underberg/Himeville to Lesotho takes about seven hours. This excursion is the most popular of the cross-border treks.

Lesotho Culture Tours. The Lesotho community cultural experience is a three-day excursion that proceeds from Sani Pass through Skering Village to Riverside, deep into Eastern Lesotho. Tourists are given a taste of

village life through live song & dance, use of artefacts (grinding stone, beer strainers, and musical instruments), and the workings of Ngaka or traditional healers (demonstration, questions & divinations, etc).

Tourists also visit and make donations to a local school supported by the joint South African/Lesotho operators. The cultural experience tours end with optional horse riding (using horses owned by members of a local pony trekking association), and visits to a local AIDS orphanage and a craft project at a local prison.

Pony Treks. Three-hour pony trekking tours are arranged from Molumong to Libibing Village return. A two-day trek is also marketed, from Sani Lodge via Sani Pass and Sehonghong Valley to Molumong (driving). Upon return to Molumong after the pony trek, tourists are driven back through the Pass. Marketing materials suggests that tourists are afforded the opportunity to ride on “sturdy, sure-footed Basotho ponies in spectacular terrain.”

Drakensberg/Maluti Flowers & Birds. The Drakensberg and Maluti mountains offer unique flowers and bird life during certain seasons, appealing to specialised groups of foreign tourists and local enthusiasts. Tours are organised into both KZN and Lesotho, as summarised below.

Flower Tours. Unique flowers blossom across the Drakensberg and Maluti mountain ranges in spring and summer. These flowers attract visitors especially from The Netherlands, United Kingdom, and France. There are specialised tours organised annually by a leading South African botanist based in Durban. Small groups (i.e. five to six people) travel on extended tours of one to two weeks for the price of R1,000 per person.

Birding Tours. Bird sighting tours in the Drakensberg and Maluti mountains are conducted mostly in spring and summer months. These tours were established by the late Professor Piper, an Ornithologist who passed away in early 2009. The tours are now directed by Dr. Piper’s surviving wife with the help of professional colleagues. About one 1 to 2-week tour is conducted every two to three months, for a total of four to six tours per year. Tour parties range in size from five to 16 people and generally include visitors from western Europe. Pricing is similar to the flower tours.

Summary

The area’s attractions are generally focused on adventure experiences, eco-tourism, and cultural heritage. KwaZulu-Natal has a number of adventure and eco-tourism attractions centred around the uKhahlamba-Drakensberg WHS, which is an important destination for foreign and domestic tourists. There are also several sporting events focused on adventure and the environment, although only a handful of these events occur within the World Heritage Site and the Sani Pass Impact Area. Much of the area’s tourism flows from KZN through Sani Pass into Lesotho. Tourist attractions in Mokhotlong District are cultural- and sport-oriented, and benefit from cross-

border tourism. In general, tourism in eastern Lesotho is marketed and dependent upon KZN tourist flow. The guided Sani Pass tours capture a significant share of the region's tourism, although there are also a number of independent travellers throughout the WHS and Sani Pass. Only a small number of tourists visit the other area attractions, despite their intrinsic appeal. For example, Himeville Museum attracts just a few hundred people per year to their much-lauded heritage exhibits. Visitor numbers to the Impact Area are summarised and discussed in more detail below.

Sani Pass Tourist Volumes

Based on information collected on attendance and turnover at existing attractions, tours, and events; coupled with data from border crossings; ADEC has calculated the total tourism flow through the Sani Pass Impact Area. This information is critical as a baseline for assessing tourism impacts, which are discussed later in this report. Key inputs to the tourism baseline are analyzed below, followed by a summary of existing tourism flows.

Tour Participant Attendance

About 23,900 visitors per year participate in at least eleven Sani Pass organised tours. These tours include the daily adventure tours as well as guided tours oriented to specialty interests. The volumes and turnover of Sani Pass guided tours are discussed below, along with information on the origin of tour participants.

Volume. About 20,800 people participate each year in the Sani Pass Adventure day tours. There are another 3,120 participants per year in the specialty guided tours through the Pass, including the Lesotho Overland adventures, flower & birding tours, rock art & geology, and village tours. Volumes are partly related to the time required for each of the tours. Sani Pass daily tours and local (Underberg & Himeville) tours require only four to seven hours. Eco-tourism tours of rock art and geological sites last a full day. Overnight tours into Lesotho require between two and six days. The Drakensberg – Maluti flower & birding tours require up to two weeks. These tours are organised and operated by four major tour companies and up to seven independent tour operators.

Origin. Nearly all of the tour participants are foreigners. Ten of the 11 sample tour operators in the area signalled that 100% of their patrons are foreigners. Only one of the 11 tour operators regularly has a few domestic (South African) patrons, accounting for just about 0.087% of total tour attendance. Currently, about 290 foreign tourists participate in the Lesotho Culture Tour experience each year. In 2008/09, a total of about 170 tourists (again, mainly foreigners) participated in the pony treks. An average of 21 people per month or about 130 per year participate in the Maluti Flower Tours, again primarily foreign tourists. These tourists typically originate in Germany, the Netherlands, France, and the United Kingdom.

Turnover. Tours in the Sani Pass Impact Area are estimated to generate around R11.4 million per year. Sani Pass Daily Tours account for the largest share of this amount due to the high volume and frequency of their offering (estimated at 158 per day, seven days per week). Lesotho Overland Standard and Lesotho Overland Extended tours generate a much smaller share of overall turnover. These Lesotho overland tours, and especially Drakensberg – Maluti eco-tourism, involve small groups travelling over extended periods of time. Local rock art & geology tours also involve small groups of people but for shorter duration.

Table 2. SANI PASS DAY & OVERNIGHT TOURS, DRAKENSBERG WHS (RSA) AND MOKHOTLONG DISTRICT (LESOTHO), 2009

Tour	Number			Turnover		
	Per Month	Per Year	Share	Per Month	Per Year	Share
Sani Pass Daily	2,511	20,775	87.0%	R 776,864	R 7,430,368	65.3%
Lesotho Overland Std	118	1,235	5.2%	R 155,067	R 1,860,798	16.4%
Lesotho Overland Ext	53	417	1.7%	R 396,205	R 1,644,000	14.4%
Drakensberg – Maluti	21	168	0.7%	R 21,000	R 168,000	1.5%
<i>Flowers</i>	21	126	0.5%	R 21,000	R 126,000	1.1%
<i>Birding</i>	-	42	0.2%	R 0	R 42,000	0.4%
Rock Art & Geology	113	1,233	5.2%	R 20,694	R 248,325	2.2%
Village Tour	16	64	0.3%	R 800	R 26,880	0.2%
TOTAL	2,832	23,892	100.0%	R 1,370,629	R 11,378,371	100.0%

Notes: Std & Ext stand for standard and extended, respectively. Monthly data include all tour operations, but not all tours operate for 12 months.

Sources: Underberg & Himeville tour operators, and African Development Economic Consultants (pty) Ltd.

Independent Sani Pass 4x4 Travellers

It is estimated that 15,500 to 21,000 independent (non-tour) travellers drive through Sani Pass each year. Based on information from lodging facilities indicating that about 30% of *lodging guests* in the region are independent travellers, it is estimated that a minimum of 15,500 independent Sani Pass travellers per year stay at lodging facilities in the area. More detailed analysis of the lodging market is provided later in this section.

ADEC also used the most recent annual data available from the Sani Pass Border Post on South African departures into Lesotho (24,601, from April 2008 to March 2009) to determine that a maximum of about 21,000 independent travellers pass through Sani Pass each year.⁷ This estimate was derived based on the assumption that 85% to 90% of domestic South African departures are tourists. Based on these estimates, it can be deduced that about 5,500 to 6,000 independent Sani Pass travellers (or the difference between 15,500 and 21,000) do not stay overnight in area lodging.

⁷ South African Revenue Service (SARS), Sani Pass Border Post.

These visitors travel almost exclusively by 4x4 vehicles, and most of these trips originate within South Africa. The domestic travellers are visiting the region to “get away” from the urban areas and experience the quiet and solitude of the Drakensberg. Many are regular travellers to the region and to Sani Pass. So, they are very familiar with the area’s offerings. Some of these visitors also attend sporting events or area attractions, or participate in other activities in the area.

Sporting Activity and Event Attendance

Only about 20 to 25% of the 17,400 regional event attendance is associated with the uKhahlamba-Drakensberg World Heritage Site. This includes about 3,700 who attend adventure oriented events (like the 4X4 motorsport and mountain quad biking races) and 750 who attend eco-tourism activities (like nature hikes). Again, some of the participants in these activities are local club members and not tourists, per se. Others participate in adventure tours or otherwise tour the area as independent travellers. So it is important not to double-count these visitors.

Meetings and conferences account for a surprisingly small share of the event market, with less than 1% of total attendance. This suggests a gap in the regional market for meetings and conferences, and an opportunity to attract more of the corporate market. Annual event attendance for the Southern Drakensberg is summarised below.

Table 3. ANNUAL EVENT ATTENDANCE, SOUTH DRAKENSBERG, KZN, 2009

Activity/Event	Destination	Number	Share
Adventure Tourism	Drakensberg WHS	3,700	21.3%
Eco-tourism	Drakensberg WHS	751	4.3%
Sporting Activities	Underberg/Himeville	6,768	38.9%
<i>Tennis</i>	<i>Underberg/Himeville</i>	<i>644</i>	<i>3.7%</i>
<i>Golf</i>	<i>Drakensberg Gardens</i>	<i>148</i>	<i>0.9%</i>
<i>Polo</i>	<i>Underberg/Himeville</i>	<i>5,586</i>	<i>32.1%</i>
<i>Other Sport</i>	<i>Underberg/Himeville</i>	<i>390</i>	<i>2.2%</i>
Festivals, shows & fairs	Underberg/Himeville	6,070	34.9%
Conferences	Underberg/Himeville	90	0.5%
TOTAL		17,379	100.0%

Notes: Summary regular calendar year events.
One day calendar year scheduled events.

Sources: Southern Drakensberg Community Tourism Association (SDCTO) and African Development Economic Consultants (pty) Ltd.

Attendance at Other Area Attractions

Some of the independent travellers visit other area attractions like the Himeville Museum. The Himeville Museum had total attendance of 2,332 between 2001 and 2008 or an average of 333 visitors per year. The visitor base increased from 200 in 2001 to 310 by 2008, for growth of about 8% per annum over the 7-year period. About 80 to 90% of visitors originate from South Africa, according to the museum operator. Again, many of these visitors are headed for the Sani Pass, so they are already counted among the “independent travellers” in the area.

Summary of Tourism Flows

These various visitor flows were examined to determine the number, type, and source of visitors per year specifically within the Sani Pass Impact Area. Overall, there are about 44,900 tourists per year in the Sani Pass market. Roughly 52.8% of these Sani Pass tourists originate overseas, whilst 47.2% are domestic (South Africans). These Sani Pass tourists form one subset of the overall tourism flow in the Southern Drakensberg region, which the SDTO has estimated at about 84,000 per year. The tourism is basically disaggregated into two key groups: Tour participants and independent travellers. Each of these groups is summarised below.

- **Tour Participants.** There are about 24,000 tourists participating in guided tours in the Sani Pass area. These include 20,800 who participate in the Sani Pass Adventure daily tours and another 3,100 who participate in overland and specialty tours. Nearly 100% of tour participants in the area are foreign tourists, with domestic tourists accounting for less than 1% of tour participants.
- **Independent Travellers.** There are another 21,000 independent travellers in the Sani Pass area. These self-drive visitors originate primarily from within South Africa. Some of them attend sporting events, visit museums, or participate in nature hikes and other activities in the area. However, most are there to relax and enjoy the 4x4 driving adventure and undisturbed beauty of the Sani Pass.

Lodging

Lodging facilities were inventoried for Southern Drakensberg (KZN) and relevant parts of Mokhotlong District to assess the existing market conditions. Lodging is a primary tourist expenditure, which has direct impacts on income and employment in the region.

Southern Drakensberg (KZN)

The KZN portion of the Impact Area has an estimated inventory of 2,827 beds, divided between bed & breakfast (B&Bs), self-catering (S/C), and full-service hotel facilities.

Beds. B&Bs and S/C account for about 51% of the lodging beds in the KZN portion of the impact area, at 1,450 (or approximately 480 to 720 rooms). There are 70 officially registered facilities, but there are also an estimated 50 unregistered facilities, bringing the total to about 120. Many of the unregistered facilities comprise of one or two rooms in a farmhouse that are sold occasionally to generate additional income. The B&Bs and S/C units are classified as SMME (small, medium & micro enterprises), with less than ten rooms. A total of 27 B&Bs are located inside villages, of which half are located on farms.

There are almost 1,300 hotel beds in the area, accounting for about 45% of the lodging inventory. Sani Pass Hotel is among the largest hotels in the region. This Himeville facility located at the gateway to Sani Pass has 76 rooms and 140 beds. Beds in spiritual institutions are technically not considered part of the lodging market, as they specifically cater for spiritually-related visits. Even so, there are about 100 beds in spiritual facilities offered for religion-based travel in the region. Overall, the Southern Drakensberg facilities cater to both leisure and business markets.



Table 4. LODGING BASE, SANI PASS IMPACT AREA, SOUTHERN BERG, KWAZULU-NATAL, 2009

Type	Beds	Share	Bednights	Share
B & Bs, S/C	1,450	51.3%	167,040	40.4%
Hotels & Lodges	1,276	45.1%	246,148	59.6%
Spiritual	101	3.6%	0	0.0%
TOTAL	2,827	100.0%	413,188	100.0%

Notes: Sani Pass Market Area on South Africa side defined as Southern Drakensberg region.

Sources: Southern Drakensberg Community Tourism Association, Sani Pass Tour Operators, and African Development Economic Consultants.

Occupancy & Market Conditions. Occupancy rates average 41.5% in the KZN portion of the impact area, with a total of about 413,200 bednights sold per year. Occupancy rates for hotels are much higher (54%) than those for B&Bs and self-catering establishments (32%). However, even the hotel occupancy rates are lower than industry standards for viable operation. In this

type of tourist location, hotels should be averaging occupancy in the 60% to 65% range at a minimum. Some hotels in the area are operating at higher levels than others, however, and occupancy ranges from a low of 39% to a high of over 75%. Operators of Sani Pass Hotel have claimed that P318 road construction has seriously impacted on their business.

B&Bs and self-catering facilities can normally operate at lower occupancy levels than full-service hotels because they have lower cash flow requirements. Such facilities rely more on family or lower-overall employment base than full-service hotels with paid staff. Even so, 32% occupancy is low even for B&Bs. This suggests that the area's lodging market is under-performing given the supply of beds.

Source Markets. The lodging facilities see a mix of foreign and domestic overnight visitors. For example, Sani Pass Hotel has 70% foreign versus 30% domestic visitors. By contrast, Drakensberg Gardens Hotel has 20% foreign versus 80% domestic visitors. Bushman's Nek claims only 5% foreign versus 95% domestic visitors. The majority of hotel visitors are coming to rest, relax, play golf, ride a horse, etc and are not headed for Sani Pass. Among B&Bs, the numbers are averaging about 30% foreign versus 70% domestic.⁸

Turnover & Employment. The lodging market in this region generates total estimated turnover of R185.5 million per year. About 45% of this turnover is generated by hotels, 33% by lodges, and 22% by B&Bs and self-catering facilities.

These facilities employ a total of about 850 people. Many of these workers are residents of the Himeville and Underberg communities. Almost 400 (46%) work in hotels, 285 (34%) at B&Bs and self-catering facilities, and about 170 (20%) at area lodges. The Scoping Report noted that this region has total resident employment base of about 3,600. As such, the lodging employment base may therefore account for 23.6% or nearly one-quarter of all jobs held by residents in the region.

**Table 5. LODGING TURNOVER & EMPLOYMENT,
SANI PASS IMPACT AREA, KZN, 2009**

Type	Bednights	Share	Turnover	Share	Jobs	Share
B & Bs, S/C	167,040	40.4%	R 41,760,000	22.5%	285	33.5%
Hotels	141,837	34.3%	R 82,797,587	44.6%	394	46.4%
Lodges	104,311	25.2%	R 60,891,341	32.8%	171	20.1%
TOTAL	413,188	100.0%	R 185,448,928	100.0%	850	100.0%

Note: Baseline estimates for turnover & employment.

Sources: African Development Economic Consultants (pty) Ltd.

⁸ Based on data supplied to ADEC by lodging operators.

The bulk of the bednights are in B & Bs / S/Cs (Bed & Breakfast and self catering units). Hotels account for the greatest share of turnover and employment. The impacts of Sani Pass Upgrade are analysed below based on this baseline assessment.

Mokhotlong District Market Base (Lesotho)

The Mokhotlong portion of the Impact Area has a total of more than 400 rooms with 770 beds. This Mokhotlong inventory includes 172 hotel rooms and 236 rooms in area lodges. There is some minor dormitory lodging but, as compared with the South African side, few if any bed & breakfasts or self-catering facilities. This confirms information suggesting that the Lesotho portion of the tourism market is much more dependent on group day-trip tours originating in South Africa and there are fewer independent travellers in this part of the region.

Table 6. LODGING BASE, SANI PASS IMPACT AREA, MOKHOTLONG DISTRICT. LESOTHO, 2009

Type	Rooms	Share	Beds	Share
Hotels	172	42.1%	290	37.7%
Lodges	236	57.7%	472	61.3%
Other	1	0.2%	8	1.0%
TOTAL	409	100.0%	770	100.0%

Notes: Other is dormitory. Lodging only for relevant Sani Pass Market Area.

Sources: Mokhotlong lodging operators, Sani Pass Tours businesses, and African Development Economic Consultants (pty) Ltd.

Tourists account for a small share of the Mokhotlong lodging market, which is more dependent on Lesotho Government and business travel. Hotel occupancy is low, averaging just 30% at the larger facilities in Mokhotlong. The lack of overnight tourist activity suggests the need for extending or enhancing the cross-border tourist experience in order to increase the positive impacts of existing Sani Pass tourism to Mokhotlong. Outside of Mokhotlong, the lodging market is primarily oriented to park visitors. For example, visitors to Katse Lodge are there primarily to see Katse Dam, while those travelling to Sehlabathebe Lodge are attracted to Sehlabathebe National Park.

Lodging Market Base Summary

Overall, the Sani Pass Impact Area has a total of about 3,135 lodging beds. About 54% of these beds are in full-service hotels and lodges whilst 46% are in B&Bs and self-catering facilities. The bulk of these beds (87%) are located on the South African side. Occupancy on the South African side ranges significantly from 30% to 75%, with an average of about 41.5%.

Mokhotlong hotels have low occupancy rates hovering in the 30% range. In sum, both portions of the market are under-performing and there is a serious gap in the Mokhotlong tourism base.

**Table 7. LODGING BASE, SANI PASS
IMPACT AREA, 2009**

Type	Beds	Share
B & Bs, S/C	1,450	46.3%
<i>RSA (Southern Berg)</i>	1,450	46.3%
<i>Lesotho (Mokhotlong)</i>	-	0.0%
Hotels & Lodges	1,685	53.7%
<i>RSA (Southern Berg)</i>	1,276	40.7%
<i>Lesotho (Mokhotlong)</i>	409	13.0%
TOTAL	3,135	100.0%

Note: Lesotho lodging only for relevant Sani Pass Market Area.

Sources: SDCTA, tour & lodging facility operators and ADEC.

As noted earlier, the KZN portion of the Impact Area generates about 413,200 bednights per year. Mokhotlong generates another 84,300 bednights, but most of this occupancy relates to Government and business travel rather than tourism.

Tourist Retail

Tourists visiting Sani Pass and other area attractions spend money on the purchase of retail goods, fuel, and services. Key items purchased are food & beverages (including restaurants), fuel, and gifts. Total estimated tourist expenditure on these three categories has been estimated as a baseline for determining impacts. At present, these purchases are likely to R227 million per annum within the kwa Sani portion of the Impact Area. Food & beverages account for the greatest share of purchases, followed by fuel.

**Table 8. BASELINE TOURIST RETAIL SPEND,
SANI PASS IMPACT AREA, KZN, 2009**

Source	Spend	Share
Food & beverage	R 103,297,014	45.5%
Fuel	R 82,637,611	36.4%
Gifts	R 41,318,806	18.2%
TOTAL	R 227,253,431	100.0%

Note: Total estimated expenditures.

Sources: African Development
Economic Consultants (pty) Ltd.

The lodging base includes a number of B&B and self-catering units that result in travel expenditures for groceries and restaurants. Domestic tourists constitute the largest component of the self-catering market, and many South Africans will bring or purchase their own food. The inventory of existing retail businesses that capture tourist-generated retail trade is summarized later in this report.

Mokhotlong District. Since most of the visitor trips are generated on the South African side, and cross-border travel tends to be organised through package tours, the amount of retail trade generated by tourists in Mokhotlong is relatively minor. Turnover for food, beverage, and gift purchases are significant at Sani Top and in the adjacent “tourist” village, since day tours stop in this controlled location but venture no further into Lesotho. Tourist-generated turnover in villages further from Sani Top into Lesotho is nominal. There are obviously opportunities to increase the length of stay for existing tourists to Lesotho and enhance Mokhotlong’s capture of existing tourist-generated retail sales.

Summary

The San Pass Impact Area extends into the Southern Drakensberg Region of kwaZulu-Natal and Mokhotlong District of Lesotho. uKhahlamba-Drakensberg Park, a UNESCO World Heritage Site, drives the market for tourism in the region. Sani Pass Valley is the primary attraction, offering a number of culture, adventure-, and eco-oriented tours. The formal tours generate attendance of nearly 24,000 people per year, but it is estimated that Sani Pass also attracts up to 21,000 independent travellers. Thus, there are an estimated **45,000** tourists visiting the Sani Pass each year, out of the total 84,000 tourists within the Southern Drakensberg region.

Whilst domestic visitors account for more than 62% of all visitors region wide (according to the SDTO), they account for about 47% of travellers in the Sani Pass. Domestic visitors comprise a small share of the participants in Sani Pass guided tours in large part because they have access to their own 4x4 vehicles. Sporting activities, festivals, and other events attract 17,000 people to the area, but only 25% of this attendance is attributable to the uKhahlamba-Drakensberg World Heritage Site (and only a share of that number to Sani Pass). Many of the people that attend these events are residents originating from within the region or visitors who are already included in the number of independent travellers to Sani Pass.

Tourists currently generate significant economic spin-off in the local economy. Guided tour companies benefit from about R11.4 million in annual tourist-generated turnover. Visitors in organized tours as well as independent travellers contribute an estimated R227 million in retail trade and services turnover to businesses in the region. The region has about 1,300 lodging rooms generating nearly 500,000 roomnights and R185 million in revenue per year. However, average occupancy is relatively low, at 42% in the Drakensberg and only 30% in Mokhotlong. An estimated 6,000 Sani Pass visitors (mainly independent travellers) do not stay in local lodging facilities. It

is critical that efforts be made to increase occupancy since the market is under-performing. Most tourists originate from the South African side and there is also a need to extend the overnight stay of visitors to Lesotho in order to increase the positive economic impacts of *existing* tourism for Lesotho's residents.

Section 4. AGRICULTURE BASE ASSESSMENT

Section 2 provides an assessment of the agricultural base within the Impact Area. Primary agriculture is the dominant economic land use in both KZN and Mokhotlong. This baseline analysis was conducted to understand the role of the Sani Pass Road in the regions' agricultural sector. The findings from this analysis provide a baseline required to assess the impacts of upgrading the Sani Pass Road on agriculture.

Kwa Sani Area

Much of the agricultural activity in Southern Drakensberg is concentrated in the Himeville and Underberg areas of kwa Sani Municipality. The region produces commodities including milk, beef, potatoes, and timber. Agricultural production in the kwa Sani portion of the Impact Area is summarised below.

Dairy

There are 30 dairy farms (average size: 1,500 hectares) in Underberg and Himeville, Kwa Sani's core agricultural base. The farms have an average herd of 600 cows which produce around 300,000 litres of milk a day. Typical dairy farms in the area employ a minimum of 20 people, with total dairy farm employment estimated at 600 to 800.

Milk is taken out of the region by tankers, as kwa Sani has no processing facility. The major buyers are Clover (60%), Nestle (30%), and Creighton Dairies (10%). Clover and Nestle ship the milk outside of the region for processing whilst Creighton processes the milk in nearby Crayton. None of the milk products are shipped through Sani Pass into Lesotho. Nor is any milk procured from Lesotho to KZN through Sani Pass. The sub-sector remains buoyant and posts growth of 10% per annum.

Potatoes

The Underberg/Himeville region is well-suited to growing potatoes due to the high attitude, cool temperatures, and low incidence of disease. The region produces 70% of seed potato demanded in South Africa and also supplies Zambia and Mozambique. Underberg has a reputation for being the first area in South Africa to grow seed potato.

About 400 hectares of land are currently under potato production, of which 70% is for seed potato. Seed potato yields are around 50 to 60 tons per hectare. The balance of land is used for production of commercial edible potato tubers. Potato farming has the potential to expand due to the demand

for seed potato in other African countries. Underdeveloped areas in and around Underberg and Himeville would benefit from further production.

Beef

There is a total of 25,000 head of cattle sold per year in the area, valued at R75 million. There are about 20 extensive farms (cattle & sheep ranches) in this area. These farms have an average breeding herd of 500, with an 85% calving rate. The region produces Triple A weaners to meet demand from major feedlots, including Karan Beef. The region has no facilities to process beef, lamb, or other animal-related products. Animals are slaughtered at Matatiele Abattoir in Kokstad and at Cato Ridge Abattoir, as there is no local abattoir in the region.

Timber

Timber is produced from around 14,000 hectares of Pine and Eucalyptus in Underberg, Himeville, and surrounding areas. The major suppliers are South Africa's large paper & pulp companies Sappi and Mondi. These two giants own 80% of the timber land, whilst the balance is owned by a number of small private farms. Around 600,000 tons per annum (mostly logs) are taken out of the region. Very little of the wood is processed locally into planks or other beneficiated products.

The land area under plantation is expected to remain constant as trees are replanted after harvesting. The timber industry is not a major employer, since most timber plantations are much less labour intensive than other forms of agriculture. Also, Sappi and Mondi utilise contractors from outside of the region for harvesting, which reduces local employment prospects. Among the few spin-off industries is mushroom processing. Edible mushrooms grown in pine plantations is collected and processed by a local plant in Himeville, and then airlifted to Europe.

Sheep

Sheep farming has declined in terms of importance during the past few years. There are currently about four farms rearing sheep in this area. The collapse of the industry is related to stock theft and the prevalence of predators such as jackals and uncontrolled dogs. As a result, only small quantities of mutton and wool are produced today in kwa Sani.

Mokhotlong District

Mokhotlong District is Lesotho's premier wool and mohair producing region and contributes considerably to the country's production base and export earnings. There are very few economic opportunities in this geographically-isolated and resource-poor region outside of sheep and goat farming. Raw wool and mohair production trends were analysed for the period 2006 to 2008, for which district-wide data is available. Limited data was available for other years. Families do produce some crops in the area,

including wheat, beans, peas, lentils (legumes), cabbages, and small quantities of maize. However, these crops are grown mainly for subsistence consumption. Wool is by far the most significant agricultural commodity produced in Mokhotlong District, and the area is Lesotho's major wool and mohair-producing region.

Wool



There are more than 3,800 farmers engaged in this industry in Mokhotlong District. The number of farmers has increased by almost 20% since 2006. Partly because of the strength of this industry, Mokhotlong has the lowest unemployment rate in Lesotho. Output from 12 Government-owned shearing sheds is tracked for the area. Total wool production increased from 474,232 kilograms in 2006/07 to 627,874 kilograms by

2008/09. This represents an increase of more than 16% per annum over the three-year period. The number of sheep shone increased by 20.3%.

Table 9. WOOL PRODUCTION TRENDS, GOVERNMENT SHEDS, MOKHOTLONG DISTRICT, LESOTHO, 2006-2009

Item	2006/07	2007/08	2008/09	Change 2006-2009		
				Number	Percent	Per Year
Farmers	3,210	3,592	3,827	617	19.2%	9.6%
Sheep shone	168,471	187,906	202,749	34,278	20.3%	10.2%
Bales	2,897	3,308	3,983	1,086	37.5%	18.7%
Production (kg)	475,232	544,751	627,874	152,642	32.1%	16.1%

Notes: Avg. sheep herd: 600 animals, range: 10-500 & 1,000+ animals.
Bale - avg 165 kg, range: 100-200 kg.

Sources: Department of Livestock, Mokhotlong District, Lesotho,
and African Development Economic Consultants (pty) Ltd.

The production of wool varies with wool commodity prices as determined by BKB of Port Elizabeth. These prices are primarily dictated by international commodity prices. There is, however, a limit to price responsiveness, as there are limited commercial substitution opportunities outside of wool and mohair (and most cropping is done for subsistence consumption). Substantial quantities go through private hands and the decision for farmers to utilise Government or private shearing sheds is a more a matter of convenience. To some extent, the decision is also dictated by the speed with which farmers receive sales proceeds.

Privately-Handled Wool. Private shearing sheds and private traders play a continuing role in the area's wool & mohair industry. Between 1995 and

2006, the amount of wool handled by the four private traders represented by Makraf's (2) and others declined steadily from 94,811kg (1995) to 59,310kg (2006). The average quantity of wool that passed through private hands during this period was 63,404kg per annum. The privately-operated Mahloenyeng Shearing Shed, located in Thaba Tseka village outside of Mokhotlong town, handles most of the privately-traded wool product in the area. More recent trends for wool and mohair handled through Mahloenyeng are summarised below.

Table 10. WOOL & MOHAIR TRENDS (KG), MAHLOENYENG PRIVATE SHED, MOKHOTLONG DISTRICT, LESOTHO, 2006-2008

Produce	2006	2007	2008	Change 2006-2008		
				Number	Percent	Per Year
Wool	99,000	107,250	115,500	16,500	17%	8%
Mohair	49,500	34,320	33,000	(16,500)	-33%	-17%
TOTAL	148,500	141,570	148,500	-	0%	0%

Note: Mahloenyeng (Mojakisane) private shearing shed, Thaba Tseka Village, Mokhotlong District.

Sources: Mahloenyeng (Mojakisane) Private Shed and African Development Economic Consultants (pty) Ltd.

The total volume for wool and mohair produced in 2008 by the shed was around 148,500kg. Wool is the dominant commodity, representing about 78% of total production. The amount of wool has increased by 8% per annum since 2006, while mohair production declined by 17% over the same period.

Mohair

The volume of mohair produced in the entire Mokhotlong District increased from 77,320kg in 2006 to 91,389kg in 2008, an increase of 18.2% over the two-year period.

Table 11. MOHAIR PRODUCTION TRENDS, GOVERNMENT SHEDS, MOKHOTLONG DISTRICT, LESOTHO, 2006-2008

Produce	2006	2007	2008	Change 2006-2008		
				Number	Percent	Per Year
Angora Goats	71,249	83,076	81,056	9,807	13.8%	6.9%
Farmers	2,452	2,786	2,970	518	21.1%	10.6%
Bales	573	664	669	96	16.8%	8.4%
Mass (kg)	77,320	93,796	91,389	14,069	18.2%	9.1%

Note: Total Mohair off-take, including 4 private traders.

Sources: Department of Livestock, Mokhotlong District (Lesotho), and African Development Economic Consultants (pty) Ltd.

The number of farmers and goats also increased in line with production trends. The number of farmers has increased by more than 21% over the three-year period, whilst the goat herd increased by only 14%. The difference in growth rates is attributable to variation in the size of individual farmers' herds.

Wool & Mohair Transport Logistics

All wool and mohair produced in Lesotho is bought by BKB of Port Elizabeth. Wool and mohair handled by the Government-operated shearing sheds is transported through Sani Pass in Kwazulu-Natal. Two of the four private traders ship their product through Sani Pass while Makraf's (representing two of the private traders) sends its wool and mohair through Maseru. The reasons that Makraf's ships eastward are the lack of suitable 4x4 trucks and the fact that the headquarters of Mahloenyeng (Mojakisane) is based in Maseru. The relative share of product shipped through Sani Pass for both Government and private traders is summarised below.

Government. An average of 550,000 kg of wool is shipped to Port Elizabeth through Sani Pass per annum. This represents 100% of wool that passes through the Government shearing sheds.

Private Traders. As noted earlier, the volume of wool handled by up to four private traders has averaged 63,404 kg per annum. An average of 42,082 kg has passed through Sani Pass (KwaZulu-Natal) over the last ten years, having fallen from 56,619 kg in 1995 to 22,079 kg in 2006. The corresponding share of shipments through Sani Pass increased from 60% in 1995 to a peak of 85% by 2002, but then fell to 42% by 2006. Sani Pass therefore captured an average share of 68% of this market over the period. The balance of output, averaging 21,321 kg or 32%, was transported to PE via Maseru.

Table 12. TOTAL MOHAIR PRODUCTION TRENDS, MOKHOTLONG DISTRICT, LESOTHO, 2006-2008

Produce	2006	2007	2008	Change 2006-2008		
				Number	Percent	Per Year
Bales	641	872	869	228	36%	18%
Mass (kg)	130,201	128,116	124,389	(5,812)	-4%	-2%
<i>Sani Pass (kg)</i>	<i>77,320</i>	<i>93,796</i>	<i>91,389</i>	<i>14,069</i>	<i>18%</i>	<i>9%</i>
<i>Sani Pass (%)</i>	<i>59.4%</i>	<i>73.2%</i>	<i>73.5%</i>	<i>14.1%</i>	<i>24%</i>	<i>12%</i>

Notes: Total mohair estimates based on all government sheds, one private shed and one trader for 2006 only.

Sources: Department of Livestock, Mahloenyeng private shed, and African Development Economic Consultants (pty) Ltd.

Overall Shipment. The best indication of the overall Sani Pass wool shipments is provided by data from 2006, for which full information is available for total output handled by both Government shearing sheds and private

traders. Of the 534,542 kg produced in 2006, 497,311 kg or 93% of wool was shipped to PE through Sani Pass. The balance of 37,321 kg or 7% of wool was transported via Maseru. An estimated 127,569 kg of mohair is produced annually, of which around 87,502 kg or 69% is shipped to PE through Sani Pass.

Overall, mohair production declined marginally by 5,812 kg or 2% per annum, but the volume passing through Sani Pass (Kwazulu-Natal) increased from 77,320 kg in 2006 to 91,389 kg in 2008. This represents growth of 9% per annum.

Underberg Wool & Mohair Trans-Shipment. Chippy Watson Transport (CWT) handles and trans-ships most wool and mohair through Sani Pass. The company typically handles four 18-ton loads mohair plus 52 18-ton loads of wool for a total of 936 tons per annum. The product is brought through Sani Pass to Underberg by four different individual transporters in 10-ton 4x4 trucks. Trading stores utilising smaller 8-tonners occasionally drop off wool and mohair. These truck specifications are ideal for the steep and rough terrain of Sani Pass. Consolidation of loads by CWT and separate loads brought in by private traders may account for differences in the total volumes analysed earlier (for Government and recognised private traders).

Chippy Watson ships the product directly either to PE or Durban. The transporter is equipped with seven 34-ton trucks, one 20 tonner and two 12-tonners. The company employs 50 people and realises R300,000 to R500,000 in proceeds per annum from haulage of Lesotho wool and mohair. CWT has provided transport logistics for Lesotho since 1998.

Summary

The kwa Sani area of KZN is a primary agriculture production region specialising in dairy, potatoes, beef, and timber, with very limited sheep farming. The region supplies secondary and tertiary processing industries located outside the market area. None of the primary product is exported to Mokhotlong District, let alone other parts of Lesotho. Neither does kwa Sani receive product or inputs from Mokhotlong. Lesotho's Mokhotlong District is a primary wool and mohair producing region that relies on Sani Pass to transport its product to Port Elizabeth and the market.

Kwa Sani is fairly developed for agriculture, and while minimal expansion and value-added production is possible, there is little scope for the industry to establish supply lines up Sani Pass. While Mokhotlong's wool and mohair industry is also fully developed, there are opportunities for increasing production for transport to PE via Sani Pass because of potential for lower transport costs due to improved road conditions.

Section 5. CROSS-BORDER TRADE BASE ASSESSMENT

Section 3 provides an analysis of cross-border trade through Sani Pass. This trade is characterised by the movement of consumer retail goods from KZN to Lesotho's Mokhotlong District and the flow of wool and mohair products from Lesotho to South Africa. This analysis provides an understanding of the status quo and a baseline for assessing the impacts of the proposed road upgrade on cross-border trade and logistics. The existing retail business base, current retail demand and supply, and the value of cross-border trade are analysed below.

Consumer Retail Trade

Much of the cross-border trade between KZN and Mokhotlong District is generated by Lesotho consumers and wholesale traders who cross into the southern Drakensberg for the purpose of purchasing retail goods and services. These "economic tourists" depend on South African retailers to supply goods that cannot be purchased as easily in the rural areas of Mokhotlong District. There is also some nominal trade generated by Lesotho residents who cross into South Africa during Easter and other holidays to visit family and friends on the other side.

Mokhotlong District Commuters

Based on the number of cross-border taxis trips and average passenger loads, an estimated 7,400 to 8,600 Lesotho residents, mostly from Mokhotlong and surrounding areas, engage in taxi travel to KZN each year. Normally, an average of three taxis carries up to 10 passengers per day across the border, except for higher volume traffic at end-of-month. The number of these commuters also peaks during Easter Weekend and holidays, when up to 10 taxis cross the border. Overall border statistics suggest that up to 13,100 Lesotho residents entered South Africa at Sani Pass via all modes of transport in 2008-09. Other than Easter, most of the trips are generated by Mokhotlong residents seeking to purchase retail consumables from Underberg and surrounding areas of kwa Sani municipality.

Retail Business Base

The urban centres of Underberg and Himeville on the South African side and Mokhotlong town in Lesotho are vital retail service centres within the Sani Pass Impact Area. These towns serve as commercial nodes for their surrounding population base as well as for cross-border travellers. These communities supply basic and essential needs ranging from groceries and consumables to agricultural inputs, transportation equipment, and various services. There are only a few formal retail outlets located within the rural

areas between Underberg/Himeville and Mokhotlong town. However, there is informal retail trade within these rural areas. The following describes the formal retail and service business base within the key nodes located in the Impact Area.

Southern Drakensberg. There is an estimated 26,725 square metres of business space located in Underberg and Himeville (see detail in Appendix Table A2). Underberg is the larger business and retail centre, and it accounts for about 90% of commercial space in the area. Supermarkets are the dominant retail uses, taking up to 42% of the commercial space in these nodes. Contract and plant hire is also an important activity, accounting for an estimated 11% of the commercial space. Supermarkets provide the retail and consumer goods that are most relevant to the Lesotho commuters who enter through Sani Pass. Besides groceries and butcheries, Mokhotlong residents also commute to KZN for banking, medical services, agricultural inputs, and occasional entertainment.

Underberg has an estimated 25,200sm of business space housing supermarkets, contract & plant hire, medical uses, undertakers, post & telecommunications, liquor stores, and agricultural suppliers. Himeville has a relatively small commercial node, accounting for about 10% of total business space. The offering is limited to grocery, liquor, and auto-related uses. The other primary (non-retail) use is a museum. Local residents of Himeville, as well as Lesotho commuters, are more likely to travel to Underberg for much of their shopping.



Turnover. Total turnover generated by the three main categories of Lesotho commuter retail purchases is estimated below.

Table 13. RETAIL TURNOVER BASE FOR KEY CATEGORIES, UNDERBERG, KZN, 2009

Category	Per Month	Per Annum	Share
Supermarkets	R 4,800,000	R 57,600,000	79%
Butchery	R 420,000	R 5,040,000	7%
Liquor Stores	R 833,333	R 10,000,000	14%
TOTAL	R 6,053,333	R 72,640,000	100%

Notes: Main retail goods categories purchased by Lesotho commuters.

Sources: Underberg & Himeville businesses and African Development Economic Consultants (pty) Ltd.

Supermarkets, liquor stores, and butchery generate monthly estimated turnover of R6.0 million per month or R72 million per annum. Supermarkets and liquor stores account for over 90% of this turnover. Purchases by Lesotho commuters were estimated at 2% share of this total turnover base, or R104,000 in groceries and meat, and R17,000 in liquor sales per month.

Table 14. ESTIMATED LESOTHO COMMUTER RETAIL PURCHASES, UNDERBERG, 2009

Category	Per Month	Per Annum	Share
Groceries	R 96,000	R 1,152,000	79%
Butchery	R 8,400	R 100,800	7%
Liquor	R 16,667	R 200,000	14%
TOTAL	R 121,067	R 1,452,800	100.0%

Sources: Underberg business operators and African Development Economic Consultants (pty) Ltd.

The existing baseline impact of Mokhotlong commuters on Underberg retail sales (in three main categories) is estimated at R1.5 million per annum. Groceries and liquor top the list of priorities, due to the lack of retail outlets in much of Mokhotlong District's eastern region bordering Kwazulu-Natal. Also, Mokhotlong is rich in livestock, and demand for meat is met by local sources.

Mokhotlong Retail Base. Mokhotlong Town has an estimated R16,500sm of commercial space (see detailed inventory, Appendix A5), housing retail and other business uses in the main town centre areas. Retail space accounts for roughly 93% of this inventory, with the main uses being supermarkets, hardware shops, and cash & carries.

Table 15. RETAIL SPACE INVENTORY, MOKHOTLONG, LESOTHO, 2009

Retail Use	Square Metres	Share
Cash & Carry	1,950	12.7%
Hardware	2,300	14.9%
Supermarket	7,636	49.6%
Grocery	170	1.1%
Footwear	280	1.8%
General dealer	760	4.9%
Auto related	300	1.9%
Casket sales	60	0.4%
Tea, coffee & bakery	280	1.8%
Clothing & textiles	800	5.2%
Banking	800	5.2%
Document process	60	0.4%
TOTAL	15,396	100.0%

Sources: Site reconnaissance, business spot Interviews and African Development Economic Consultants (pty) Ltd.

Supermarkets take up almost 50% of retail space, followed by hardware stores and cash & carry outlets. These outlets offer wholesale bulk and single item purchases. General dealerships, hardware, clothing, textiles, and banking services are also dominant. Hardware stores provide building materials for government infrastructure developments projects (i.e. schools, health facilities, etc) as well as for construction of private houses. Almost all retail outlets offer building materials and hardware items, reflecting a local economy that is in a basic infrastructure and property development phase. Supermarket turnover is estimated at about R26.7 million per year.

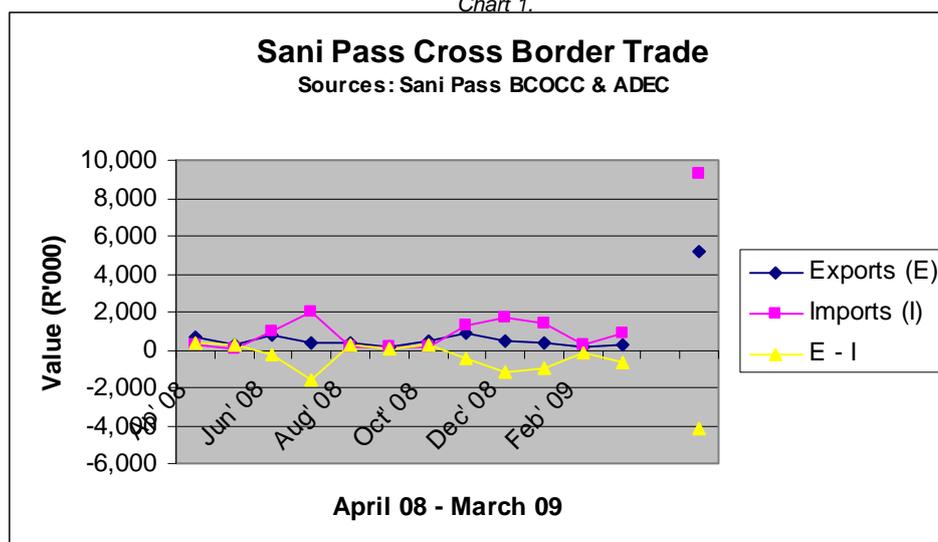
Commercial Trade (Imports & Exports)

According to SARS' BCOCC⁹ and Customs Marine, the value of goods imported into South Africa through the Sani Pass border post in 2008/09 was R9.3 million (R9,290,279) versus exports in the amount of R5.2 million (R5,167,415). Sani Pass is classified as a non-commercial port, for customs clearance purposes. As such, goods are imported and exported through concessionary arrangements between the governments of South Africa and Lesotho. SARS has to-date registered a minimum of 50 traders with licenses to import and export different types of goods across the border. This trade does not include ordinary retail consumable purposes made by "economic tourists" crossing the border from either country.

Total Value

Between April 2008 and March 2009, the value of imports through Sani Pass to South Africa fluctuated significantly, ranging from R251,000 in April 2008 to a peak of R2.0 million in July 2008. Imports averaged R774,000 per month for an annual total of R9.3 million.

Chart 1.



⁹ Non-resident Border Control Operation Coordination Committee (SARS & SAPS) oversees import & export affairs of Sani Pass Border Post.

Exports peaked in November 2008 at R854,000. Average monthly exports were lower than imports at R431,000 and total exports for the year were R5.2 million. The trade balance (*Exports less Imports*) was -R4.1 million while R1.3 million was collected in VAT. SA Customs officials suggest that the values for cross border trade, especially exports, are grossly understated as traders seek to evade customs for one reason or another. This is compounded by the fact that the Sani Pass Border Post is not manned by customs (SARS) officials.

Specific Import & Export Products

BCOCC data suggest that wool and mohair account for around 90% of all imports through Sani Pass into South Africa. The balance of 10% is in livestock. This suggests the importance of Sani Pass as the most efficient transit route for Lesotho-sourced wool and mohair. Goods exported through Sani Pass are mainly grocery stock, motor vehicle spare parts, cement, and hardware items.

Value of Trading Stock. Mokhotlong business purchases of KZN trading stock currently amount to R300,000 per month or R3.6 million per annum, routed through Sani Pass.

Table 16. STOCK PURCHASES THROUGH SANI PASS, MOKHOTLONG TOWN TRADERS, LESOTHO, 2008-09

Store type	Status Quo		Potential	
	Per Month	Per Annum	Per Month	Per Annum
Local (4)	R 300,000	R 3,600,000	R 450,000	R 5,400,000
Expatriate (9)	R 0	R 0	R 92,300	R 1,107,700
TOTAL	R 300,000	R 3,600,000	R 542,300	R 6,507,700

Notes: Potentials for "expatriate" owned shops based on share of Sani Pass imports to total stock of "local" stores.

Sources: Mokhotlong shop owners and African Development Economic Consultants (pty) Ltd.

Four of the 13 trading shops in Mokhotlong Town are "locally-owned." These shops procure about 30% of their total stock on average from Pietermaritzburg in KZN (Kwazulu-Natal). These four shops are operated by Basothos and complement their stock holdings with the bulk sourced from either Butha Buthe (Lesotho interior) or from Ficksburg (north of Lesotho near the western Lesotho/South African border). Based on the available Customs data, it would appear that these four Mokhotlong shops account for up to 69.7% of SA exports through the Sani Pass border post. Again, the border data do not account for informal trade and that which circumvents formal trade authorisation.

The volume of trade via Sani Pass is based on long-term associations with trading partners in KZN and also on the capacity of the Sani Pass route to facilitate transit of the existing fleet of 4x4 trucks. The local businesses are constrained by the use of 4x4 trucks with maximum payload of 8 to 10 tons, used on the demanding terrain of Sani Pass. The remaining nine trading stores are run by “expatriates” (i.e. Chinese nationals, etc) who do not source stock in KZN, let alone through Sani Pass. Rather, merchandise is procured mostly from Maseru and is transported via a less-challenging tarred road. The impact of upgrading the Sani Pass Road on such trading activity is explored later in this report.

Summary

There is substantial cross-border commercial trade between KZN and Mokhotlong District amounting to (officially), R9.2 million in imports to South Africa and R5.2 million in exports to Lesotho. Imports are primarily wool and mohair while exports are mainly in trading stock. Imports are generated by Mokhotlong’s sheep and goat farms while exports are supported by Mokhotlong’s commercial traders based in Mokhotlong Town. Much of the commercial merchandise exported through Sani Pass originates from wholesalers in Pietermaritzburg. Limits on the use of transport equipment and, to some extent road conditions, currently inhibit further cross-border transport of commercial merchandise and agricultural product. In addition to commercial trade, individual consumers from Mokhotlong District engage in cross-border shopping to purchase groceries, meat, liquor and other products mainly from Underberg and Himeville. These “economic tourists” generate at least R1.5 to R2.0 million per year in retail trade impacts on existing businesses in kwa Sani.

Section 6. ROAD UPGRADE ECONOMIC IMPACTS

This section provides a summary of findings from an assessment of the economic impacts of proposed Sani Pass Road upgrading. Based on the output of the Scoping Report, impacts were determined primarily on tourism, agriculture, transport, and retail & wholesale trade. This assessment draws from the baseline analyses for these economic sectors. In particular, the assessment focuses on the impacts to various niches within the tourism market, as well as on cross border trade in wool & mohair, commercial trade, and commuter retail. Impacts on routing & logistics, turnover, employment, development, and economic spin-off related to these activities are explored. In addition, impacts from road construction are also assessed as possible based on engineering data supplied to the consultants.

Ultimately, the measures used in this assessment help to determine whether the proposed project will generate a negative or positive impact on the region's economy and the welfare of its residents and businesses. As noted earlier in this report, the costs and benefits are distributed differently to different economic sectors and sub-sectors. As such, the cost-benefit measures (i.e., turnover and employment) are compared as they relate specifically to different aspects of the economy. As a public sector project, issues of financial feasibility for the road upgrade are less relevant than the potential economic costs and benefits. Ultimately, the road is considered as a "public good," and exists to generate societal benefits. This impact assessment measures societal benefits in terms of the economic well-being of area businesses and residents.

The following impacts were determined based on the engineering alternatives developed and described in the Scoping Phase of this assignment. Alternative 1 would de-declare the road for vehicular traffic. Alternative 2 would re-gravel the surface, make minor drainage improvements, and maintain. Alternative 3 would improve the geometrics, upgrade drainage, retain splash-throughs, construct retaining walls, and re-gravel. Alternative 4 would improve the geometrics, upgrade drainage, construct bridges and retaining walls, and hard surface up to km25, then gravel up to 33km. Alternative 5 (the "preferred" Government alternative) would improve the geometrics, upgrade drainage, construct bridges and retaining walls, and hard surface the entire phase from km14 to km33. Finally, Alternative 6 would improve geometrics, upgrade drainage, construct bridges and retaining walls, hard surface from km14 to km31, and tunnel the last 3 kilometres.

Tourism Sector Impacts

Existing tourism within the Impact Area is focused on two primary market niches: adventure tourism and eco-tourism, although there is an element of cultural tourism that has been incorporated into some tours. These niches have marketed concurrently through most of the day tours, but there are separate specialty tours focused on culture and the environment. It is important first to examine the potential road upgrading impacts on these existing niches but also then to examine the impacts on opportunities for other types of tourism that may potentially exist. Tourism impacts were examined in relation to the baseline performance of this sector as identified earlier in this report. Research on comparable road impacts worldwide was also examined to help determine the critical “threshold” that separates the marketability of such roads for adventure and eco-travel from an orientation to basic “mass-market” tourism.

Adventure tourism is the largest tourism industry niche in the Impact Area and also the most sensitive to any changes in the character of the Sani Pass Road. The baseline assessment found that over 90% of the tours sold in this market are oriented specifically to the experience of driving up the Sani Pass Road and back. The day tours attract attendance of more than 28,300 per year and generate direct turnover of R10.6 million per year, which accounts for about 73% of the tour income generated in the area. Other tours also incorporate the drive, but are oriented to cultural or eco-tourism, focusing on birding, rock art, flora, and the village experience. In addition, there are an estimated 15,500 to 21,000 independent travellers who are also attracted mainly by the adventure holiday experience of driving the Sani Pass Road. At present, tourist traffic is generated almost exclusively by tours and independent travellers originating from the South African side, but spill-over of these visitors into Lesotho helps generate some economic benefits to the Mokhotlong portion of the Impact Area.



The impacts to adventure tourism of upgrading the Sani Pass Road would vary considerably depending on how the character and therefore the experience of the road might change as a result of engineering improvements. It has been clearly established that the adventure of Sani Pass Road relates in large measure to its extremely rough and rocky driving conditions and 4x4-only

accessibility. But how specific changes in the road's character might alter the adventure experience is a matter of some speculation.

Research conducted for this report identified a large number of dangerous mountain pass roads throughout the world that attract tourists for the adventure experience. Often, this experience extends beyond driving the road itself to include a package of sports and recreation activities associated with nearby destinations. Many roads are considered much more dangerous to drive than Sani Pass, even where the road is paved. In a listing of the world's ten "most dangerous roads," nearly all are already tarred.

In most of these cases, the experience relates not to the surface of the road but to the altitude, design (e.g., hairpin turns), and lack of safety features. Some roads can become more dangerous *once they are paved* because of increased speeds and slippery conditions that are less prevalent on rough surfaces. The road to Nam-Tso (Tibet), for example, was upgraded and tarred since 2006 but may be experiencing higher accident rates due to icy road conditions (according to tourist accounts).



N Yungas Rd, Bolivia



Stelvio Pass Road, Italy

In some cases, it is the combination of altitude, design, and lack of safety features *plus* the road surface that makes for the adventure tourism experience. One example relevant for Sani Pass is the Manali-Kelong Road through Rohtang Pass in Himachal Pradesh (India), pictured below. The surface of the road and its lack of safety design create an exciting adventure experience, although most drivers are ultimately using the road to reach destinations in the Himalaya beyond the peak of the road itself. Because of the wide variety of experiences that each of these roads brings, it would be nearly impossible to identify comparable road improvements from which to judge impacts on adventure tourism. Nevertheless, certain lessons have been learned from each of these roads in terms of the role of road surface and design in the adventure experience.

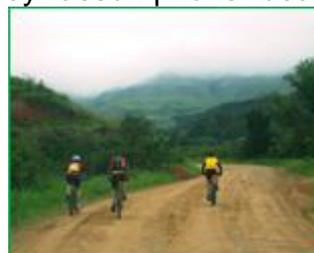


Manali-Kelong Road, Rohtang Pass, India

Impacts on eco-tourism would relate more to environmental changes that may occur as a result of upgrading the road, such as loss of habitat, air and groundwater pollution, or increased commercial development. The findings of Arcus Gibb seem to suggest that road upgrading will improve

certain environmental conditions through improved drainage and other measures. A number of tourists who participate in existing tours share a dual interest in both the environment as well as the adventure experience. Thus, there is an overlap between these niches in the existing market and a change in the character of the road will have impacts on eco- and cultural tourism as well.

The primary assumptions used in this impact analysis have been explained earlier in this report. However, several key assumptions bear repeating because of their relevance to the assessment of tourism impacts. As noted earlier in the report, it has been assumed that the surfacing materials used to upgrade the road (such as gravel or concrete) would be selected in part to blend with the surroundings in terms of colouring, to the best extent possible. New improvements to the road, such as bridges and retaining walls, would be sensitively designed in order to minimise their visual impact on the road and the view shed. It has also been assumed that no new commercial development would be allowed within the Sani Pass Road Corridor from km14 to km33. Nor would such development be allowed within a buffer zone or view shed of Sani Top. However, it is assumed that commercial use might be allowed (and even encouraged) through sensitive development in other parts of Sani Pass Road (such as in Mokhotlong District) and the Impact Area.



IMPACTS ON TOUR OPERATORS

The estimated impact on existing tour operators was measured under each of the six alternatives. Also identified are potential opportunities for development of new tour niches and programmes that could be developed to “off-set” some of the negative impacts to existing tour operators. The impact of the project on the *number of tour participants* was estimated, both for existing tours and for potential new tours. Then, tour participation was translated into impacts on tour *turnover and employment*, which are the key measures used in this study to compare impacts across economic sectors.

Number of Tour Participants. All of the existing tour operators in the area are currently dependent on 4x4 vehicles, which is their primary mode of transport. The 4x4 adventure “experience” is an important part of the tourism product currently sold to visitors (especially foreigners). As such, if the pass were made off-limits to 4x4 vehicles as in Alternative 1, then these existing operators would clearly lose most or all of their business in the short term. Since the road would be deemed “unsafe for public use” in Alternative 1, then there would be no other options for tour operation along the Sani Pass Road. Total tour participation would fall by almost 24,000 per annum. The impacts of all six alternatives on the number of tourists participating in existing tours are summarised below.

Table 17. ROAD UPGRADE IMPACTS ON NUMBER OF EXISTING TOUR PARTICIPANTS BY ALTERNATIVE, SANI PASS IMPACT AREA

Tour Niche	Road Upgrade Alternative					
	1	2	3	4	5	6
Sani Pass Daily	(20,770)	(210)	(210)	(9,970)	(16,620)	(20,570)
Lesotho Overland Std	(1,240)	(10)	(10)	(330)	(770)	(1,110)
Lesotho Overland Ext	(420)	-	-	(90)	(240)	(280)
Drakensburg - Maluti	(170)	-	-	(30)	(60)	(70)
Rock Art & Geology	(1,230)	(10)	(10)	(180)	(370)	(490)
Village Tour	(60)	-	-	(20)	(40)	(40)
Total Impact	(23,890)	(230)	(230)	(10,620)	(18,100)	(22,560)

Source: African Development Economic Consultants (pty) Ltd. (ADEC).

There would be only a nominal impact on the number of existing tourists under Alternatives 2 and 3, which only foresee minor upgrades and no hard-surfacing of the road. Alternative 4 would see a significant impact to existing tour operators, but not as great as if the road were to be re-surfaced all the way through km33. In alternatives 4 and 5, a primary reason for hiring a 4x4 tour operator and driver is removed if the road is passable using regular vehicles. Thus, foreign tourists would be more likely to either drive the road themselves using their hire cars, or would forego the trip altogether. Either way, professional tour operators are likely to lose this existing business. Alternative 5, the Government's preferred alternative, would result in the loss of about 18,100 participants from existing guided tour operations.

It should be noted that existing tour operators would not lose all of their clientele under Alternatives 4 and 5, since some tourists will still wish to participate in a guided tour. In Alternative 4, tour operators would retain more than 55% of their current loads. In Alternative 5, they would retain about 25%. However, the adventure experience will have been greatly diminished and access broadened away from a dependence on 4x4 vehicles for most tourists.

Even more significant impacts would be felt under Alternative 6, which robs the tourist of the highlight of the experience of rising above the clouds near Sani Top. These estimates are made based on a number of factors applied to existing attendance rates, generated from surveys, site reconnaissance, tour & facility operators, comparable attractions, and other input.

Potential Off-Sets from New Tours. If road conditions were improved to allow for regular automobile transit then the tourism market is likely to shift more to "mountain cultural" tourism and to favour more intensive "mass" marketing of the Lesotho experience in concert with the Sani Pass. Alternative tour concepts would emerge to market and package tourism in the Impact Area. These concepts would focus on eco-tourism and mountain Sotho culture. Without the development of major new destinations to draw visitors,

there is likely to be a shift towards a stronger emphasis on non-motorised adventure, such as hiking / trekking, biking, horseback riding, and other modes. Tours would require longer time commitments and would attract younger “backpackers” and trekkers.

Cultural tourism and unique adventures to Lesotho would become more prominent as ease of travel would allow for the coverage of greater distances. Distant parks in Lesotho would become slightly more accessible, although the proposed upgrade does not include proposals for improved road networks beyond the trunk road. As such, extensive tourist travel within Lesotho would still be constrained by the poor transport linkages to key sights beyond the main road. The adventure component would be re-imagined but could still incorporate the Sani Pass Road as a key element. The role of view sheds and above-the-cloud vistas, hairpin turns, and unique flora would overtake that of the rough driving conditions and elements of danger that now dominate the road experience.

There is also the possibility under Alternatives 4, 5, and 6 that tour operators would gradually adjust to the new conditions by switching to other modes of transport. Theoretically, some operators might switch to the use of busses in order to provide a guided experience to larger volumes of people engaged in “mass market” tourism over greater distances. Rather than Sani Pass being seen as “the” attraction, it would play a less prominent role as one of several attractions en route to destinations in Lesotho. There are two primary constraints to such a transition to volume-oriented mass-market tours, however. First, the purchase of tour busses requires substantial capital which is not available to most of the existing local operators. Local companies would also likely have to compete with the major bus tour operators, all of whom are based outside of the region. As such, most of the benefits of tour bus operations are likely to accrue not to local operators within the Impact Area but to bus companies based in other regions.

Second, there would have to be a more substantial “mass market” to support such tours, driven by destination attractions or experiences on the other side of the border in Lesotho. Whilst there are existing eco- and cultural tourism experiences that already attract some tourists to eastern Lesotho, there are few significant tourist *destinations* in Mokhotlong, and even fewer that are accessible for tour busses. On the other hand, there may be potential for increasing access to existing attractions or in creating completely new tourist destinations in Mokhotlong and elsewhere in Lesotho. The market base for new guided tours is explored below, based on replacement capture of existing adventure and eco-tourism markets. However, the potential for *new* “mass-market” tour destinations should be explored in greater detail through a full market analysis, which is not included within the scope of this impact assessment.

Table 20. ROAD UPGRADE IMPACTS IN TERMS OF POTENTIAL NEW TOUR PARTICIPANTS BY ALTERNATIVE, IMPACT AREA

Tour Niche	<u>Road Upgrade Alternative</u>					
	1	2	3	4	5	6
Eco-Tourism/Trekking	1,550	220	220	220	200	180
Cultural/Lesotho	-	-	-	680	1,580	1,360
TOTAL	1,550	220	220	900	1,780	1,540

Source: African Development Economic Consultants (pty) Ltd. (ADEC).

Re-branding and marketing of new cultural and eco-tours may capture new niches within the tourism market that are less oriented to the challenging road experience. The substitution of these new tours might re-capture up to about 1,800 tour visits under Preferred Alternative 5, mainly due to the ability to “fit” more activities into a cross-border experience because of faster speed of travel through Sani Pass. Similarly, faster speeds would also see the opportunity for re-capturing some cultural visitors in Alternatives 4 and 6. These numbers can be accommodated in a wider variety of vehicles including buses, mini-vans, and automobiles in addition to 4x4s. However, as stated previously, existing tour operators are not likely to switch to the use of busses because of the capital required and the lack of market support. Alternative 1 would re-capture some eco-tourists because of the experience of trekking or biking along a road now closed for motorised traffic.

Net Impacts on Tour Participation. Regardless of the potential for re-capturing a portion of the market, this tourism flow would only substitute for a portion of the original adventure tour base. If new destination attractions were added, or access to isolated parklands increased (especially in Lesotho), then there may be opportunities for increasing the overall tour capture. The net impact on participation among tour operators, considering both existing tours and potential new ones, is summarised below.

Table 21. NET ROAD UPGRADE IMPACTS ON TOUR PARTICIPATION BY ALTERNATIVE, SANI PASS IMPACT AREA

Tour Status	<u>Road Upgrade Alternative</u>					
	1	2	3	4	5	6
Existing Tours	(23,890)	(230)	(230)	(10,620)	(18,100)	(22,560)
Potential New Tours	1,550	220	220	900	1,780	1,540
NET IMPACT	(22,340)	(10)	(10)	(9,720)	(16,320)	(21,020)

Source: African Development Economic Consultants (pty) Ltd. (ADEC).

Overall, potential new tours would not generate sufficient new participation to overcome the loss in attendance at existing tours. Only in Alternatives 2 and 3 is there the possibility that overall net impact (cost-benefit) is close to nil. In the Preferred Alternative, there would be a net loss of about 16,300 tour participants even after accommodating the operation of new tours to “off-set” the losses in tour participation from existing tours.

Tour Operator Turnover. The loss of participation will greatly reduce turnover for tour operators. Under Alternative 1, of course, operators would lose all existing revenue generated from 4x4 tours because 4x4 vehicles would no longer be allowed on the road. Alternatives 2 and 3 see only minor, possibly *temporary* loss of turnover. Alternative 4 would generate a significant loss of existing turnover, but some larger operators are likely to remain in business nonetheless. In Preferred Alternative 5, as well as in Alternative 6, there would be devastating loss in turnover among all tour operators again because of competition created by alternative modes of transport and a reduction in overall appeal.

Table 22. ROAD UPGRADE IMPACTS ON EXISTING TOUR OPERATOR
TURNOVER BY ROAD UPGRADE ALTERNATIVE, SANI PASS IMPACT AREA

Tour Niche	Road Upgrade Alternative					
	1	2	3	4	5	6
Sani Pass Daily	(7,430,368)	(74,304)	(74,304)	(3,566,577)	(5,944,294)	(7,356,064)
Lesotho Overland Std	(1,860,798)	(18,608)	(18,608)	(502,415)	(1,153,695)	(1,674,718)
Lesotho Overland Ext	(1,644,000)	(16,440)	(16,440)	(345,240)	(953,520)	(1,101,480)
Drakensburg - Maluti	(168,000)	(1,680)	(1,680)	(28,560)	(57,120)	(67,200)
Rock Art & Geology	(248,325)	(2,483)	(2,483)	(37,249)	(74,498)	(99,330)
Village Tour	(26,880)	(269)	(269)	(6,451)	(16,128)	(18,816)
Total Impact	(11,378,371)	(113,784)	(113,784)	(4,486,492)	(8,199,255)	(10,317,609)

Source: African Development Economic Consultants (pty) Ltd. (ADEC).

The total loss in existing turnover would be R8.2 million in Alternative 5 and R10.3 million in Alternative 6. This compares with a (temporary) loss of only about R100,000 total in Alternatives 2 and 3.

Potential Turnover Off-Sets from New Tours. Turnover impacts were also estimated for new tour operations. These turnover benefits would range from a positive R220,000 in Alternatives 2 and 3 to R2.8 million in Alternative 5. The Preferred Alternative would generate the highest positive benefits from new tour operations. These positive benefits are summarised in the table that follows.

Table 23. ROAD UPGRADE IMPACTS IN TERMS OF NEW TOUR TURNOVER BY ALTERNATIVE, SANI PASS IMPACT AREA

Tour Niche	<u>Road Upgrade Alternative</u>					
	1	2	3	4	5	6
Eco-Tourism/Trekking	1,550,000	220,000	220,000	220,000	200,000	180,000
Cultural/Lesotho	-	-	-	1,120,610	2,603,770	2,241,220
TOTAL	1,550,000	220,000	220,000	1,340,610	2,803,770	2,421,220

Source: African Development Economic Consultants (pty) Ltd. (ADEC).

Much of the potential new tour turnover would be generated by cultural and other tours into Lesotho, where there would be interest among foreign travellers for a unique experience that differs from South Africa. Lesotho parks and scenic areas would also be incorporated into more cross-border tours, but such tourism can only be maximised if road access is provided to currently inaccessible areas. It should also be noted that whilst overall turnover generated by these tours is substantial, the cost of operating longer, cross-border tours is also much higher to the operator. The “net” impact of the road changes on existing and potential new tour turnover is summarised below.

Table 24. NET ROAD UPGRADE IMPACTS ON TOUR OPERATOR TURNOVER BY ALTERNATIVE, SANI PASS IMPACT AREA

Tour Niche	<u>Road Upgrade Alternative</u>					
	1	2	3	4	5	6
Existing Tours	(11,378,371)	(113,784)	(113,784)	(4,486,492)	(8,199,255)	(10,317,609)
Potential New Tours	1,550,000	220,000	220,000	1,340,610	2,803,770	2,421,220
NET IMPACT	(9,828,371)	106,216	106,216	(3,145,882)	(5,395,485)	(7,896,389)

Source: African Development Economic Consultants (pty) Ltd. (ADEC).

Net Impacts on Tour Turnover. There would still be a net overall loss in tour operator turnover under most road alternatives, even after accounting for the development of new, replacement culture and eco-tours that extend further into Lesotho. Only Alternatives 2 and 3 will generate some positive net benefit from the road upgrades on tour operator turnover. The Preferred Alternative would generate a *net* loss of R5.4 million per annum in tour operator turnover, or about 50% of the current amount. Under Alternative 6, the tour operators would suffer a net loss of nearly R8.0 million per year. Again, this negative impact occurs even after new tours are developed to offset a significant loss of existing client base.

Tour Operator Employment. The turnover impact on existing and potential new tour operations has been translated into employment as follows.

Alternative	Existing	New	Net Change
1	-26	+3	-23
2	0	0	0
3	0	0	0
4	-9	+3	-6
5	-17	+6	-11
6	-21	+5	-16

By reducing or eliminating public access to Sani Pass, Alternative 1 would generate a loss of about 25 to 30 jobs among existing local tour operating companies in the area. Alternatives 2 and 3 would generate no long-term loss in employment because there is little loss in turnover to local tour companies. Alternative 4 would generate a modest employment loss of nine or ten jobs among existing operators. Preferred Alternative 5 would generate a loss of an estimated 17 jobs among existing tour operators, whilst Alternative 6 would generate a loss of at least 21 jobs.

If new guided tour operations are developed and promoted in the area, there would be some new jobs created to replace those lost at existing operators. New employment ranges from +3 in Alternative 1, to +6 in Alternative 5. The Preferred Alternative would generate the highest employment gain from the development of new tours that are less reliant on the Sani Pass adventure experience. However, there would still be a net loss of at 10 to 15 jobs under the Preferred Alternative, since employment generated by new tours will not off-set the losses incurred in existing adventure tour operations.

Summary of Impacts on Tour Operators. The upgrading of the road will clearly have a deleterious effect on existing 4x4 tour operators, especially since they focus on adventure tourism that requires the use of a 4x4 vehicle to scale the Sani Pass Road. If road conditions were improved to allow for regular automobile transit then the tourism market is likely to shift more to “mountain cultural” tourism and to favour more intensive “mass” marketing of the Lesotho experience in concert with the Sani Pass. A full market potentials analysis would be required to determine the potential for mass market tourism in the region. For the purposes of this analysis, estimates have been made based on possible re-capture of the existing market base.

Under the Preferred Alternative (5), there would be a net loss of 16,320 guided tour participants, even after new tours are established to off-set the losses among adventure tour operators. This loss of attendance would result in a cumulative net loss of R5.4 million per year in turnover and at least 10 to 15 permanent local jobs. The Scoping of Impacts for the adventure tour operators is summarised in the following chart.

IMPACT		
TOURISM: ADVENTURE TOUR OPERATORS		
	Description	Score (w/mitigation)
Probability	Definite	5 (4)
Duration	Long-Term (>15 years)	4 (2)
Extent	Limited to Region	3 (3)
Magnitude	Very high and results in complete destruction of patterns and permanent cessation of processes	10 (8)
SCORE	Significance Points (SP) = (Magnitude + Duration + Extent) x Probability	85 (52)
RANKING	HIGH NEGATIVE Impact	
IMPACT	Negative impact on all existing adventure tour operators who depend on 4x4 transport. Mitigation measures include high attention to sensitive road design and materials, and development of alternative tour concepts that focus more on the Lesotho experience	

The score of 85 points shows that the project would have a high negative impact on adventure tour operators in the Impact Area. The probability of a negative impact is high, and it is likely to be long-term, but it is limited to the immediate region. Even with mitigation, which would include the establishment and promotion of new tours that are less dependent on the Sani Pass adventure experience, the negative impact on tour operators will still be quite high.

IMPACTS ON INDEPENDENT 4x4 TRAVELLERS

The flow of independent 4x4 travellers attracted to Sani Pass is also likely to be impacted by changes in the character of the road. Independent travellers are not a tourism sub-sector per se, like Tour Operators, Lodging, or Retail Trade. They are only a part of the market base and serve as an indicator of the overall market impacts of changes to the road. It is nevertheless important to calculate the impact of the project on the behaviour of independent travellers, because their numbers translate into impacts on economic sub-sectors of tourism including lodging and retail trade.

At present, the independent travel market is driven by domestic visitors from Gauteng and other major urban centres. Many of these travellers drive to the region in their own 4x4 vehicles partly for the experience of driving up Sani Pass. Many are escaping the pressures of urban life for the isolated beauty of the Drakensberg. Reducing the challenge of driving along the rough mountainous terrain will impact on the willingness of domestic travellers to drive such great distances for the experience.

The impacts on existing travellers would be most significant in Alternative 1, again because restricting the use of the road for 4x4 vehicles will remove the primary purpose for most independent trips up the Pass. Impacts would range from about 13,000 to 15,600 less existing independent tourists using the Pass for adventure 4x4 travel. There would also be some additional loss in eco-tourism because of the lack of accessibility, although

alternatives might be provided in the form of hiking (“trekking”), biking, or horseback riding. Hiking in this area under Alternative 1 may come to more closely resemble trekking in mountainous areas of Thailand or other countries. Significant impacts would also be felt in Alternative 4, but more so in Alternatives 5 and 6. The Preferred Alternative (5) would trigger the loss of between 12,630 and 17,110 existing independent travellers. This impact would primarily relate to adventure tourism, but it would also include about 350 to 450 eco-tourists. The overall impact of proposed changes in the road on the number of existing independent travellers is estimated below.

Table 25. ROAD UPGRADE IMPACTS ON NUMBER OF EXISTING INDEPENDENT TOURISTS BY ALTERNATIVE, SANI PASS IMPACT AREA

Tour Niche/Range	Road Upgrade Alternative					
	1	2	3	4	5	6
Adventure/4x4 – LOW	(12,960)	(140)	(140)	(7,370)	(12,280)	(13,500)
Eco-Tourism - LOW	<u>(1,400)</u>	<u>(20)</u>	<u>(20)</u>	<u>(220)</u>	<u>(350)</u>	<u>(520)</u>
Total	(14,360)	(160)	(160)	(7,590)	(12,630)	(14,020)
Adventure/4x4 - HIGH	(17,560)	(180)	(180)	(9,980)	(16,630)	(18,300)
Eco-Tourism - HIGH	<u>(1,890)</u>	<u>(30)</u>	<u>(30)</u>	<u>(300)</u>	<u>(480)</u>	<u>(710)</u>
Total	(19,450)	(210)	(210)	(10,280)	(17,110)	(19,010)

Source: African Development Economic Consultants (pty) Ltd. (ADEC).

The loss of independent travellers would have no direct bearing on the livelihoods of tour operators, who (by definition) are catering primarily to those tourists who are not travelling by way of their own vehicle. The impacts of a loss of independent travellers would ripple instead through the lodging and retail trade sectors, where expenditures by independent travellers (like those of tour participants) translate into jobs and income for local residents. As such, there is no score given specifically for the impacts of independent travellers, since their role is accommodated through the impacts on the various economic sectors.

Potential Independent Travel Off-Sets from Non 4x4 Access. As discussed above, some existing independent travellers would no longer drive their 4x4 vehicles up Sani Pass if certain changes are made to the road. However, there are other visitors to the region who would otherwise not drive the road unless those changes are made. These visitors are primarily leisure tourists who stay overnight in the area and would drive a non 4x4 vehicle up the Pass as one of their leisure activities. Based on information collected through interviews with area lodging operators, the share of visitors who fall into this category is probably quite small. Nevertheless, there is the potential for at least some additional self-drive travel on Sani Pass Road if the road is made accessible to non 4x4 vehicles. The estimated numbers of tourists who may fall into this category (along with those who might choose to bicycle or hike on the road) are summarised below.

Table 26. ROAD UPGRADE IMPACTS ON NUMBER OF NEW INDEPENDENT TOURISTS BY ALTERNATIVE, SANI PASS IMPACT AREA

Tour Niche/Range	<u>Road Upgrade Alternative</u>					
	1	2	3	4	5	6
Adventure/4x4 - LOW	-	80	80	1,640	2,460	1,770
Eco-Tourism - LOW	<u>350</u>	<u>10</u>	<u>10</u>	<u>190</u>	<u>170</u>	<u>150</u>
Total	350	90	90	1,830	2,630	1,920
Adventure/4x4 - HIGH	-	110	110	2,220	3,330	2,400
Eco-Tourism - HIGH	<u>480</u>	<u>10</u>	<u>10</u>	<u>250</u>	<u>230</u>	<u>200</u>
Total	480	120	120	2,470	3,560	2,600

Source: African Development Economic Consultants (pty) Ltd. (ADEC).

Alternative 5 could generate up to about 3,500 new independent traveller trips per annum, since the road would be more accessible to non 4x4 vehicles. Alternatives 2 and 3 would have the least impact on new visits because access would not be increased significantly to other forms of transport. Even so, increased safety conditions may, if promoted, help encourage a small number of additional tourists to make the trip using 4x4 vehicles.

Net Impacts on Independent Travellers. The loss of independent travellers resulting from the proposed road changes was compared with the gain of new independent travellers due to increased access, in order to derive a net impact on the number of independent travellers.

Table 27. NET ROAD UPGRADE IMPACTS ON NUMBER OF INDEPENDENT TOURISTS BY ALTERNATIVE, SANI PASS IMPACT AREA

Tour Niche/Range	<u>Road Upgrade Alternative</u>					
	1	2	3	4	5	6
Adventure/4x4 - LOW	(12,960)	(60)	(60)	(5,730)	(9,820)	(11,730)
Eco-Tourism - LOW	<u>(1,050)</u>	<u>(10)</u>	<u>(10)</u>	<u>(30)</u>	<u>(180)</u>	<u>(370)</u>
Total	(14,010)	(70)	(70)	(5,760)	(10,000)	(12,100)
Adventure/4x4 - HIGH	(17,560)	(70)	(70)	(7,760)	(13,300)	(15,900)
Eco-Tourism - HIGH	<u>(1,410)</u>	<u>(20)</u>	<u>(20)</u>	<u>(50)</u>	<u>(250)</u>	<u>(510)</u>
Total	(18,970)	(90)	(90)	(7,810)	(13,550)	(16,410)

Source: African Development Economic Consultants (pty) Ltd. (ADEC).

As shown above, the project will still result in a negative impact on the number of independent travellers in the Impact Area. The number of new travellers who drive the Pass thanks to increased access to non 4x4 vehicles is not high enough to off-set the number of independent 4x4 travellers who will

chose not to visit the road due to the changes. The Preferred Alternative results in a net loss of about 13,550 independent travellers. Again, this number does not, in itself, signify an economic impact. The number of travellers is only an indicator of the overall market condition, and feeds into the assessment of impact on economic sectors including lodging and retail trade, discussed below.

IMPACTS ON LODGING FACILITIES

All of these impacts on tourist volumes will translate into impacts on the lodging market within the Impact Area. As shown below, the various road alternatives will generally have a negative impact on lodging bednight demand generated by tours and independent tourism flow. However, the small number of business travellers may increase modestly if the road is improved in Alternatives 4, 5, and 6 because of improved access to the Lesotho/KZN markets.

**Table 28. NET ROAD UPGRADE IMPACTS ON LODGING BEDNIGHTS
BY TYPE OF FACILITY, SANI PASS IMPACT AREA**

Facility Type/Factor	<u>Road Upgrade Alternative</u>					
	1	2	3	4	5	6
B&Bs, S/C	(24,950)	(2)	(2)	(8,917)	(14,635)	(19,661)
Hotels	(49,469)	(4)	(4)	(17,680)	(29,016)	(38,981)
Lodges	(36,381)	(3)	(3)	(13,002)	(21,339)	(28,668)
TOTAL	(110,800)	(10)	(10)	(39,600)	(64,990)	(87,310)

Source: African Development Economic Consultants (pty) Ltd. (ADEC).

Lodging Occupancy & Bednights. Occupancy and the number of bednights sold are indicators of market demand. Changes in the Sani Pass Road will impact on tours and independent travel behaviour in the region (as discussed previously), which then translates into a shift in lodging occupancy. Overall, occupancy and bed night demand is estimated to remain fairly stable in Alternatives 2 and 3, but Alternative 1 would result in a net loss of occupancy translating into 110,800 bed nights. Preferred Alternative 5 would result in a net loss of about 65,000 bed nights. These demand indicators account for both the losses and gains in tourism generated by the road upgrade, as discussed for tour operators and independent travellers. Thus, they represent “net” impact figures.

Mokhotlong is most likely to benefit from any increase in business travel through the region. However, the overall decrease in tourist travel will outweigh any economic benefits from a modest increase in business travel. Most benefits would accrue to the small number of lodging facilities in Mokhotlong town. Even then, occupancy would only increase by 1% and Mokhotlong lodging facilities would still be under-performing.

Lodging Turnover. The changes in occupancy and the numbers of beds sold will translate into a change in turnover for lodging facilities. The change in turnover, in turn, translates into a change in the number of staff required to operate the facilities. Overall, turnover would fall under Alternatives 1, 4, 5, and 6. In Alternative 5, turnover would fall by about R22.9 million. This impact would be split between B&Bs (R6.8 million or 23% of current turnover), hotels (R9.2 million or 16% of current hotel turnover), and lodges (R6.8 million or 16%), based on their share of the market and their relative dependence on Sani Pass-oriented tourism.

Table 29. ROAD UPGRADE IMPACTS ON LODGING TURNOVER & JOBS BY TYPE OF FACILITY, SANI PASS IMPACT AREA

Facility Type/Factor	<u>Road Upgrade Alternative</u>					
	1	2	3	4	5	6
<u>B&Bs, S/C</u>						
Turnover (000)	(9,972)	(2)	(2)	(4,059)	(6,839)	(8,916)
Employment	(110)	-	-	(20)	(40)	(50)
<u>Hotels</u>						
Turnover (000)	(15,751)	8	8	(5,355)	(9,237)	(12,454)
Employment	(140)	-	-	(20)	(50)	(60)
<u>Lodges</u>						
Turnover (000)	(11,584)	6	6	(3,938)	(6,793)	(9,159)
Employment	(50)	-	-	(10)	(20)	(20)
<u>TOTAL</u>						
Turnover (000)	(37,307)	12	12	(13,351)	(22,870)	(30,529)
Employment	(300)	-	-	(50)	(110)	(130)

Source: African Development Economic Consultants (pty) Ltd. (ADEC).

The turnover impacts would be highest under Alternative 1, where few visitors would have access to the Sani Pass Road, therefore limiting the overall attraction for many of the existing overnight visitors. Business-generated turnover may increase marginally, but this increase is not sufficient to overcome the impacts on turnover generated by tour participants and independent travellers. These findings are summarised above (turnover expressed in thousands of Rand).

Operators of the two largest hotels in the area, Sani Pass and Drakensberg Gardens, have expressed their opinion that upgrading of Sani Pass Road which results in a loss in the “prevailing appeal,” would lead to a decrease in turnover ranging from 10% to 18% of their hotel market. The impacts estimated on hotels for Alternative 5 (16%) in this assessment falls within the range estimated by the hotels themselves.

Lodging Employment & Income. As noted in the table above, lodging employment would be negatively impacted under Alternatives 1, 4, 5,

and 6. Under the Preferred Alternative 5, there would be a net loss of about 110 jobs at B&Bs, hotels, and lodges in the Impact Area. Considering that lodging facilities are amongst the largest employers in the region and that these facilities provide a variety of employment opportunities for low- and moderate-skilled workers, the loss of 110 lodging jobs would be a significant blow to the regional economic base. Alternatives 1 and 6 would generate an even higher job loss, at 300 and 130, respectively. The loss of 300 jobs would account for almost 10% of the formal employment within the KZN portion of the Impact Area, based on the 2001 Census data collected by Statistics South Africa and analysed by ADEC in the Scoping Report for this project. The loss of 110 jobs in Alternative 5 would account for about 3% of total formal area employment.

Based on an average minimum wage of R1,650 per month, the loss of 110 jobs in Alternative 5 would translate into R2,178,000 in lost annual salary and wage income for local residents. However, the impact may be much higher than that figure based on information from area lodging facilities which suggests that some hotels are paying salaries in the range of R1,900 to R2,500 per month (excluding management). Based on these wage rates, the impact could range up to almost R3.0 million per annum in lost income.

Summary of Impacts on Lodging Facilities. This impact assessment has determined that there would be a High negative impact on lodging facilities resulting from the road project in Alternatives 1, 4, 5, and 6. In Alternative 5, there would be a net loss in occupancy equal to about 65,000 bed nights, resulting in a net loss in turnover of about R22.8 million per year. This loss in turnover translates into the need for 110 fewer workers, a serious impact equal to at least 3% of formal employment on the KZN side of the Impact Area.

Job losses would translate into at least R2.2 million (and up to R3.0 million) in lost wages and salary income for area residents. Whereas the jobs and income lost among tour operations will mainly affect the operators themselves, losses in the lodging sub-sector will affect a much broader segment of the region's population, including low- and moderate-wage workers.

IMPACT	TOURISM: LODGING FACILITIES	
	Description	Score (w/mitigation)
Probability	Highly Probable	4 (3)
Duration	Long-Term (>15 years)	4 (2)
Extent	Limited to Region	3 (3)
Magnitude	High (processes are altered to the extent that they temporarily cease)	8 (6)
SCORE	Significance Points (SP) = (Magnitude + Duration + Extent) x Probability	60 (33)
RANKING IMPACT	HIGH NEGATIVE Impact	
	Negative impact on all lodging facilities that depend on 4x4 tours and independent 4x4 adventure tourism. Mitigation measures are attention to road design and materials, and development of alternative tour concepts	

that focus more on Lesotho experience

The above scoring chart notes that there is a high probability of negative impact and that it would be fairly long-term. The significance of the impact is scored at 60 points, a relatively high impact on the lodging sub-sector. The development of alternative tours and attractions would help to mitigate the impacts, although the positive influence of such efforts is already accounted for in these “net” impact numbers.

IMPACTS ON TOURIST-GENERATED RETAIL TRADE

The net impact of the project on the number of tour participants and independent travellers was translated into a net impact on retail trade establishments throughout the Impact Area. Retail businesses benefit from visiting tourists, who purchase not only souvenirs but also food and beverages, fuel, and other retail goods from local merchants and traders. The impacts on retail trade were measured in terms of both turnover and employment.

Retail Turnover. Overall, retail turnover would remain relatively stable in Alternatives 2 and 3. However, the loss of tour participants and independent travellers in Sani Pass will result in significant negative impacts in the other alternatives. In Alternative 1 retailers are likely to lose up to R6.0 million in annual turnover. At the lower end, Alternative 4 would generate a loss of about R2.7 million. The Preferred Alternative (5) would generate a net loss of about R4.5 million per year. This would account for about 1.9% of total retail trade within the area.

Table 30. ROAD UPGRADE TOURISM IMPACTS ON RETAIL BUSINESS
TURNOVER BY RETAIL CATEGORY, SANI PASS IMPACT AREA

Tourist Retail Category	Road Upgrade Alternative					
	1	2	3	4	5	6
Food & Beverage (000)	(3,584)	(35)	(35)	(1,593)	(2,715)	(3,384)
Fuel (000)	(1,493)	(14)	(14)	(664)	(1,131)	(1,410)
Gifts (000)	(896)	(9)	(9)	(398)	(679)	(846)
Total Turnover (000)	(5,973)	(58)	(58)	(2,655)	(4,525)	(5,640)
Job Impact	(16)	(0)	(0)	(7)	(12)	(15)

Note: Turnover expressed in Thousands of Rand.

Source: African Development Economic Consultants (pty) Ltd. (ADEC).

The effects of lost tour and independent travel-generated retail turnover would be ameliorated to some extent by an increase in new alternative tour packages. However, this increase is not sufficient to overcome the decline expected in existing tour- and independent travel-generated retail volumes. The new attendance is already accounted for in this net impact assessment.

Retail Employment. The net loss of retail turnover translates into the loss of jobs in Alternatives 1, 4, 5, and 6. Under Preferred Alternative 5, there would be a net loss of about 12 full-time retail jobs (or perhaps 24 part-time jobs). Most of this job loss would relate to the food & beverage component of the retail industry, namely restaurants. Restaurants are important to the local economy because they hire relatively large numbers of workers for various shifts. Alternatives 2 and 3 will not result in any retail job losses, but Alternative 1 will generate a loss of at least 16 full-time jobs (and as many as 32 to 40 part-time jobs).

Summary of Impacts on Retail Trade. The loss of tourists travelling through the area as a result of changes to the character of the Sani Pass Road will translate into lower retail turnover. It is estimated that Alternative 5 will generate a net loss of about R4.5 to R5.0 million in annual retail turnover, or about 1.9% of total retail trade in the area. This loss translates into a need for about 12 fewer full-time workers or 24 part-time employees, especially in the restaurant industry.

IMPACT	TOURISM: TOURIST-GENERATED RETAIL	
	Description	Score (w/mitigation)
Probability	Highly Probable	4 (3)
Duration	Long-Term (>15 years)	4 (2)
Extent	Limited to Region	3 (3)
Magnitude	Low and will cause a slight impact on processes	4 (4)
SCORE	Significance Points (SP) = (Magnitude + Duration + Extent) x Probability	44 (27)
RANKING	MODERATE NEGATIVE Impact	
IMPACT	Negative impact on some retail businesses which generate a portion of sales from the adventure tour participants and independent 4x4 travellers. Mitigation measures include high attention to sensitive road design and materials, and development of local destination tourism experiences.	

Based on this analysis, it is determined that the project will result in a negative impact, albeit a relatively moderate one. There is a fairly high probability of a negative impact, with a long-term duration. The significance of the impact has been rated at a score of 44. The impact would be focused on those retail businesses that cater to tourists in the region, particularly on adventure tour participants and independent 4x4 travellers who drive the Sani Pass Road. Again, this analysis is based on a “net” impacts assessment that accounts for the offsets generated by some new tour opportunities. Mitigation measures include the development of new tours (as noted above) and local destination tourism experiences that could also help offset the decline in adventure-oriented tourism.

SUMMARY OF TOURISM SECTOR IMPACTS

The Impact Assessment has determined that Alternatives 1, 4, 5, and 6 for upgrading the Sani Pass Road will each have a deleterious impact on the region's tourism industry. Alternative 1 will severely reduce all vehicular access to the road, effectively closing Sani Pass to most of the existing tourism base. Alternatives 4, 5, and 6 call for changes to the road surface and infrastructure that will alter the character of the "adventure" experience that attracts approximately 45,000 visitors per year to the Pass. However, it isn't the experience alone that is altered under these three alternatives, but also the accessibility of the road to traffic other than 4x4 vehicles. By allowing regular vehicle traffic to access the road, the market for tourism will shift away from the two primary drivers (literally) at present: 4x4 tour operators and independent 4x4 travellers.

Tour Operators

The impact on 4x4 tour operators will be significant, since a primary purpose for (mainly foreign) tourists to hire the operators is to be able to access the road. In Preferred Alternative 5, the impact on existing tour operators includes the loss of about 18,100 participants out of a total 24,000. This loss can be off-set partially through the introduction of new tours that focus more on cultural tourism and Lesotho. Even so, the changes would still result in a net loss of about 16,000 tour participants and R5.4 million in annual turnover. At least 10 to 15 people would lose their jobs in Alternative 5. These losses are highly concentrated on the 11 tour operators themselves: generally small, independent and locally-owned businesses.

Independent Travellers

In addition to organized tours, there are about 21,000 independent 4x4 travellers in the Sani Pass region each year. These travellers mostly originate from within South Africa and enjoy experiencing the adventure and serenity of driving the Sani Pass. A large number of these travellers are not likely to return with the hard surfacing of the road. They would no longer need their 4x4 to drive the road, so the experience is changed for them. It is estimated that the area would attract 17,000 fewer independent travellers under Alternative 5. However, the increased road access to non 4x4 tourists in the area might help off-set up to 4,000 of these lost visitors.

Lodging

The net losses of 4x4 tour participants and independent 4x4 drivers has been translated into net impacts on the key tourism sectors of the local economy, namely lodging and retail. Due to a reduction in the number of tourists in Alternative 5, the lodging industry would see lower occupancies and generate about 65,000 fewer bed nights. The loss of occupancy will result in a net loss of about R22.9 million in turnover and 110 jobs in Alternative 5. The

loss of so many jobs (about 3% of total employment) will have spin-offs throughout the local economy. There would be R2.2 million to R3.0 million per year in lost wages and salary income for area workers and their families.

Retail

Reduced numbers of tourists will also impact on retail businesses and restaurants in the region, estimated at R4.5 million in annual turnover under Alternative 5. This loss, whilst not as severe as that for lodging facilities, will still result in a reduction in employment of up to 15 permanent and 25 part-time workers.

Cumulative Impact

Overall, the upgrading of the Sani Pass Road would result in a net loss in the number of tourists, ranging from about 100 temporarily in Alternatives 2 and 3 up to 36,300 (out of the total 45,000 current number) in Alternative 1. Alternative 5 will result in the third most significant impact on the number of tourists out of the six alternatives.

Table 31. CUMULATIVE NET IMPACT OF ROAD UPGRADE ON SANI PASS TOURISM SECTOR

Factor	Alternative					
	1	2	3	4	5	6
# Tourists	(36,300)	(100)	(100)	(15,500)	(26,300)	(33,100)
On Tours	(22,300)	-	-	(9,700)	(16,300)	(21,000)
Independent	(14,000)	(100)	(100)	(5,800)	(10,000)	(12,100)
Turnover	(53,108,000)	60,300	60,300	(19,152,300)	(32,790,600)	(44,065,400)
Tour Operators	(9,828,400)	106,200	106,200	(3,145,900)	(5,395,500)	(7,896,400)
Lodging	(37,307,100)	11,600	11,600	(13,351,400)	(22,870,100)	(30,529,000)
Retail	(5,972,500)	(57,500)	(57,500)	(2,655,000)	(4,525,000)	(5,640,000)
Employment	(337)	0	0	(64)	(134)	(162)
Tour Operators	(20)	0	0	(7)	(11)	(16)
Lodging	(300)	-	-	(50)	(110)	(130)
Retail	(16)	0	0	(7)	(12)	(15)

Source: African Development Economic Consultants (pty) Ltd. (ADEC).

The upgrading of the road will result in a loss of turnover and output in the Impact Area for tour operators, lodging facilities, and retail & restaurant establishments in four of the six alternatives. Alternative 1 would generate the highest net impact on turnover, with a net loss of about R53.1 million per year to these businesses. Alternative 5 is again ranked third in terms of impacts, yielding a net loss of R32.8 million per year. Alternatives 2 and 3 will actually generate a slight net gain in turnover, since improved safety conditions (without a significant change in road character) can increase the potential for new tour operations.

Alternatives 1, 4, 5, and 6 will result in a loss in tourism sector employment. Alternative 1 generates a net loss of almost 340 jobs, a significant number that accounts for more than 10% of the KZN portion of the area's formal employment base. Preferred Alternative 5 generates the third-highest loss in net employment, at 134. Alternatives 2 and 3 generate no temporary or permanent losses or gains in tourism employment.

Based on these assessments, it is clear that Alternative 1 results in a severe, negative impact on the tourism industry. The Preferred Alternative (5) also results in a negative impact, but it is not as severe as in Alternatives 1 or 6. Alternatives 2 and 3 generally result in no impact overall.

Distribution of Impacts & Significance

These impacts were examined in the context of the existing tourism base and turnover generated by the tourism industry in the Impact Area in order to assess the relative distribution of impacts on each sub-sector. Turnover is a consistent indicator of output, employment, and income. This analysis shows that overall loss of turnover in tourism-related industries will range from nil (Alternatives 2 and 3) to about 26% in Alternative 1. However, much of the impact is heavily concentrated on tour operators and, to a lesser extent, tourist-oriented retailers and lodging facilities.

Table 32. RELATIVE IMPACT OF SANI PASS ROAD UPGRADE
BY ALTERNATIVE AND TOURISM SUB-SECTOR

Factor	Alternative					
	1	2	3	4	5	6
# Tourists	-81%	0%	0%	-35%	-59%	-74%
On Tours	-93%	0%	0%	-41%	-68%	-88%
Independent	-67%	0%	0%	-28%	-48%	-58%
Turnover	-26%	0%	0%	-9%	-16%	-21%
Tour Operators	-86%	1%	1%	-28%	-47%	-69%
Lodging	-20%	0%	0%	-7%	-12%	-16%
Tourist Retail	-53%	-1%	-1%	-23%	-40%	-50%

Source: African Development Economic Consultants (pty) Ltd. (ADEC).

Tour operators would see a net loss of nearly **90%** in turnover under Alternative 1 and 69% under Alternative 6. Preferred Alternative 5 would yield a net loss amounting to nearly 50% of the tour operators' baseline turnover. A 50% loss in turnover would be devastating to tour operators. Lodging facilities overall would lose more than 20% of their turnover in Alternative 1, 16% in Alternative 6, and 12% in Alternative 5. Whilst a 12% loss would not necessarily result in a collapse of the region's lodging industry, it would reduce the stability of an already under-performing sector of the local economy. Existing occupancies (42%) are already much lower than minimum industry standards, at 62% to 65%. Some existing facilities are more dependent on the adventure tourism industry than others and those facilities

are most likely to close as a result of reduced tourism under Alternatives 1, 5, and 6.

The retail industry overall is least impacted by the reduction in tourist volumes, since the area's retailers cater to a broad clientele and are more dependent on the local household base than on tourists. If the retail industry is considered overall, the road upgrade will impact on only about 3% of turnover under the worst conditions (Alternative 1). However, among retailers and restaurants that cater specifically to the tourist trade, the impact would be more severe, with an estimated net impact of up to 53% under Alternative 1. Preferred Alternative 5 would generate a net loss of 40% of turnover volumes. It is possible that some tourist-oriented retailers might shift more of their merchandising to serve the local and regional market base. However, it may not be possible for some specialty retailers and restaurants to substitute completely for the lost tourism market base.

Mitigation Measures

Certain mitigation measures have already been accommodated to arrive at these "net" impact numbers. Namely, the possibility of alternative tours and improved access for non 4x4 drivers has been included to off-set the negative impacts on existing tours and independent 4x4 travellers. Clearly the most significant relative impacts will be on the tour operators and tourist-oriented retailers or traders, although under-performing lodging facilities would also be severely impacted. Mitigation measures would be oriented to assisting the tour operators shift to potential new businesses or other markets. Ultimately, there is the question of whether new destinations could be developed and accessed in Lesotho, to increase the number of both organised tours and independent travellers into Lesotho. It is highly recommended that the viable opportunities for new tourism destinations be explored through a thorough and comprehensive **Market Potentials Analysis and Strategic Tourism Development Plan** for the region as a way of integrating any potential road improvements better with adjustments required to the tourism industry. Without a pro-active strategy for development of tourism destinations, existing tour operators, lodging facilities, and tourist-oriented retailers will lose their primary market base and will suffer severe and devastating losses under all but two of the alternatives.

Agriculture Sector Impacts

The impacts on agriculture were assessed because of its importance to the regional economy and also because infrastructure improvements are likely to impact on the market access and transport logistics for agricultural products. Ultimately, it is important to determine whether the project will generate a significant increase in transportation access that will expand the market base for agricultural products or the trade in those products. Increased access would translate into potentially higher volumes of cross-border trade, helping to meet at least one objective of Government in funding the upgrade of the road. The baseline assessment suggests that the greatest impacts are likely to be felt by the Lesotho wool and mohair industry. These impacts are assessed and discussed below, along with the impacts on meat & dairy, niche agricultural products, and suppliers to the agricultural sector.

IMPACTS ON THE WOOL & MOHAIR INDUSTRIES

Overall, upgrading the Sani Pass Road will have nominal impacts on wool & mohair industry and on the broader agricultural supply chain in the region. The main issue relates to the apparently limited technical improvement in shipping opportunities and market access afforded by the proposed improvements.

Transport Logistics. There is an established preference for use of the existing Sani Pass Road for wool shipments generated by 12 of the 14 Government-controlled sheep and goat shearing sheds in Mokhotlong District. Existing shipments are made using 8- and 10-ton 4x4 trucks optimised for use on the Sani Pass Road. According to the transport companies, an improvement in road conditions would not necessarily result in better opportunities for larger or more efficient truck transport. Paved roads will result in less traction for trucks on steep incline grades, and can result in dangerous situations in rain or slick conditions. In general, the transport companies do not anticipate using larger or faster trucks for these reasons if the road is paved with a hard surface.

Thus, improvements to the Sani Pass Road would not result in an overall change in transport logistics for product generated by Government sheds. Furthermore, there is only a limited possibility that current private traders' shipments through Maseru might be diverted to Sani Pass. However, there is also the possibility that improved road conditions might reduce the cost of transport relating to equipment maintenance requirements. The closure of Sani Pass Road to all traffic, as envisioned in Alternative 1, would naturally result in a major shift in shipping patterns away from Sani Pass, with wool and mohair transport transferred to Maseru and south to Port Elizabeth.

Net Impacts. Improvements to the road in Alternatives 5 and 6 may result in a shift of several private wool and mohair shipments from Maseru to Sani Pass, with an impact of about R1.8 million per annum and 80 jobs

attributable to road access in the Impact Area. However, the net impact to Lesotho overall would be nil because the benefits are merely shifted from the western part of the country to the east.

Table 33. TEMPORARY ROAD UPGRADE IMPACTS ON WOOL & MOHAIR FARMING TURNOVER & EMPLOYMENT, SANI PASS IMPACT AREA

Factor	Road Upgrade Alternative					
	1	2	3	4	5	6
Turnover	(26,013,100)	-	-	-	1,785,420	1,785,420
Employment	(1,165)				80	80

Source: African Development Economic Consultants (pty) Ltd. (ADEC).

Alternative 1 would result in a temporary loss of more than R26 million in turnover to existing farmers who ship wool and mohair through Sani Pass. This loss of turnover would translate into the loss of 1,165 jobs including the farmers themselves. However, such dramatic losses are unlikely because shipments would transfer to the Maseru route and down to Port Elizabeth. Thus, aside from a temporary adjustment, overall impacts should be nominal.

IMPACT	AGRICULTURE: WOOL & MOHAIR INDUSTRY	
	Description	Score (w/mitigation)
Probability	Low likelihood	2 (3)
Duration	Long-Term (>15 years)	4 (4)
Extent	Limited to Region	3 (3)
Magnitude	Low and will cause a slight impact on processes	-4 (-4)
SCORE	Significance Points (SP) = (Magnitude + Duration + Extent) x Probability	-22 (-33)
RANKING IMPACT	LOW POSITIVE Impact	
	Positive impact on existing wool & mohair farmers, transporters, shearers, and suppliers due to improved transport logistics. Positive impacts would be increased through attention to safety measures for 8- and 10-ton trucks travelling the road.	

In general, there is a fairly low probability of a **positive** impact on the wool & mohair industry over the long term under the Preferred Alternative 5. The impact to the wool and mohair industry is likely to be positive but minor in magnitude, with a score of -22 (a positive impact). This positive impact is likely to extend to wool and mohair farmers as well as transporters, shearers, and suppliers, due to improved transport logistics. Alternative 1, as noted above, would have a serious but short-lived negative impact on the wool & mohair industry, with shipments shifted from Sani Pass to Maseru.

IMPACTS ON DAIRY & MEAT INDUSTRIES

Because the road already exists, there would not be a significant increase in market access for agricultural products generated by the upgrading of Sani Pass Road. If transport logistics still limit the capacity and

speed of shipments with only nominal improvement in cost, then there is limited benefit in terms of access to market for Mokhotlong agricultural product. With improved road conditions, the cross-border market for dairy and meat products may become slightly more accessible, favouring existing farmers in Kwa Sani Municipality. These and other cross-border consumer impacts are explored later in this section.

IMPACT	AGRICULTURE: DAIRY & MEAT INDUSTRIES	
	Description	Score (w/mitigation)
Probability	Low Probability	2 (2)
Duration	Long-Term (>15 years)	4 (4)
Extent	Limited to Region	3 (3)
Magnitude	Minor and will not result in an impact on processes	-2 (-2)
SCORE	Significance Points (SP) = (Magnitude + Duration + Extent) x Probability	-18 (-18)
RANKING	LOW POSITIVE Impact	
IMPACT	Positive impact on existing dairy and meat farmers & suppliers who would have improved access to cross-border markets due to improved opportunities for alternative small vehicle delivery transport. However, customs could limit such cross-border trade.	

The proposed upgrading in Alternative 5 would generate a minor, **positive** impact on the region's dairy and meat industries. The impact is limited, with a magnitude of only -2 (positive) and an overall score of -18 (again, positive). Dairy and meat farmers & suppliers would have improved access to cross-border markets due to improved opportunities for alternative, small vehicle delivery transport. There is a somewhat low probability of the impact and it would generally be limited geographically, especially if customs agents restrict such cross-border meat & dairy trade.

IMPACTS ON NICHE AGRICULTURAL PRODUCTS

There are opportunities for development of new agricultural products, especially within Mokhotlong District. More importantly, there are opportunities for beneficiation and downstream manufacturing related to the wool and mohair industry in this region. The market potential for new products should be explored further. On the other hand, improvements in Sani Pass Road conditions will not necessarily translate into significant improvements in transport logistics or market access. Shipments are still likely to be restricted in volume. The opportunities for specialty niche products should nevertheless be explored further as a tool for economic development, regardless of the impact of improvements to Sani Pass Road.

As shown below, there is an "improbable," small **positive** impact anticipated from Alternative 5 on niche agricultural products and beneficiation (e.g., downstream processing) of those products. The overall score is set at -7 (positive) but the positive impacts could be expanded through strategic agricultural development planning.

IMPACT	AGRICULTURE: NICHE PRODUCTS & BENEFICIATION	
	Description	Score (w/mitigation)
Probability	Improbable	1 (2)
Duration	Long-Term (>15 years)	4 (4)
Extent	Limited to Region	3 (3)
Magnitude	Small and will have no effect on the environment	0 (-2)
SCORE	Significance Points (SP) = (Magnitude + Duration + Extent) x Probability	-7 (-18)
RANKING IMPACT	LOW POSITIVE Impact	
	Negligible positive impact on farmers and communities in Mokhotlong in development of niche agriculture products and beneficiation of wool and mohair products for export. Major positive benefits could be generated by strategic agricultural development planning, but the road plays a relatively minor role. Integration of truck safety into design of road will help improve long-term transport opportunities (as a “mitigation” measure).	

The Sani Pass Road plays a relatively minor role in the development of new niche products. More important are strategic interventions and investments in the area’s agricultural development.

IMPACTS ON AGRICULTURAL SUPPLIERS

A more significant benefit may accrue to KZN suppliers of agricultural inputs, such as motor & equipment spares, hardware, and other supplies that may be transported throughout the region and into Lesotho more easily or efficiently by smaller delivery trucks. In fact, suppliers of all types of products delivered in small loads will benefit from improved road conditions. Closure of the road (as in Alternative 1) would severely limit the supply of spare parts and other inputs to farmers in Mokhotlong District.

IMPACT	AGRICULTURE: SUPPLIES & EQUIPMENT	
	Description	Score (w/mitigation)
Probability	Probable	3 (3)
Duration	Long-Term (>15 years)	4 (4)
Extent	Limited to Region	3 (3)
Magnitude	Low and will cause a slight impact on processes	-4 (-4)
SCORE	Significance Points (SP) = (Magnitude + Duration + Extent) x Probability	-33 (-33)
RANKING IMPACT	MODERATE POSITIVE Impact	
	Positive impact on existing and potential parts and equipment businesses in KZN that supply the wool and mohair industry in Mokhotlong, due to improved opportunities for alternative small vehicle delivery transport.	

Overall, there would be a “probable,” **moderate positive** impact on suppliers of agricultural inputs, parts, and equipment due to improved opportunities for alternative small vehicle delivery transport. The magnitude of the positive impact is scored at -4, whilst the overall significance score is -33 (a positive impact).

SUMMARY OF AGRICULTURAL SECTOR IMPACTS

Overall impacts on agriculture are summarised below for Alternatives 5 and 6, where there is substantive change in the road infrastructure. In these cases, some private wool & mohair producers might shift over to Sani Pass (but the net impact to Lesotho overall would be nil). There may be some nominal cost savings in maintenance for existing transport companies.

Type of Impact (Alts 5, 6)	Beneficiary	Turnover Benefit
Wool & Mohair	Mokhotlong. Farmers	R1.8 million
Lower Maintenance Costs	Transport Companies	Nominal
Agriculture Inputs (parts)	kwa Sani Suppliers	R1.0 million
Dairy & Meat	kwa Sani Farmers	<R1.0 million*
Niche Agricultural Products	Mokhotlong Farmers	Nominal**

*See Cross-Border Trade. **Benefits will accrue based mainly on other factors.

There could be some minor increase in sales of agricultural inputs, such as spares and parts, for supplies in kwa Sani. Similarly, there may be some increased cross-border trade in fresh food product, thanks to the improved opportunity for smaller transport vehicle access. There is potential for further development of niche agriculture and downstream production in Mokhotlong, but the Sani Pass road improvements alone would only have a nominal impact on such opportunities.

Table 34. CUMULATIVE NET IMPACT OF ROAD UPGRADE ON IMPACT AREA AGRICULTURAL SECTOR

Factor	Alternative					
	1	2	3	4	5	6
Turnover	(26,313,100)	-	-	-	3,284,400	3,284,400
Wool/Mohair	(26,013,100)	-	-	-	1,785,400	1,785,400
Agri Inputs	(300,000)	-	-	-	1,004,000	1,004,000
Dairy & Meat	-	-	-	-	495,000	495,000
Niche Products	-	-	-	-	Nominal	Nominal
Employment	(1,166)	-	-	-	85	85
Wool/Mohair	(1,165)	-	-	-	80	80
Agri Inputs	(1)	-	-	-	3	3
Dairy & Meat	-	-	-	-	2	2
Niche Products	-	-	-	-	Nominal	Nominal

Source: African Development Economic Consultants (pty) Ltd. (ADEC).

Overall, there would be a total net positive impact of about **R3.3 million** in annual turnover and **85 jobs added** under Alternatives 5 and 6. This includes an increase of about R1.8 million per year in wool & mohair industry turnover, R1.0 million per year for suppliers of agricultural inputs, and R500,000 for dairy and meat suppliers. There would also be benefits from the development of niche product and beneficiation. Overall, the impacts are relatively minor but positive for Alternatives 5 and 6.

Impacts on Cross Border Trade & Transport

The impacts on cross border trade were determined as they relate to consumer retail and transport services, as well as the import/export trade in commercial merchandise. These impacts relate directly to the question of increasing cross-border trade, a key objective of Government in promoting the road upgrade project. These impacts are discussed below.

IMPACTS ON COMMUTER-GENERATED RETAIL TRADE

Improvements to Sani Pass Road would allow Lesotho commuters to have faster (and potentially cheaper) access to retail goods and services in kwa Zulu-Natal. By allowing alternative modes of transport, there is the possibility for larger numbers of taxis and increased competition on this route. Such competition might help to drive down the cost of transport to some extent. It is not anticipated that road improvements alone would result in a significant increase in the *number* of Mokhotlong commuters to KZN. Such large increases are more likely to occur over time as a result of income growth and demographic changes. However, increased competition and lower taxi rates may help increase the number of commuter trips through the Pass by a modest amount (5% or more) depending on the elasticity of demand. If the number of trips were to increase by 5%, then overall retail turnover in kwa Sani will be impacted as follows:

Table 35. ESTIMATED IMPACT OF ROAD IMPROVEMENTS COMMUTER RETAIL TURNOVER, IMPACT AREA

Category	Turnover (Alternatives 5-6)		
	Existing	Increase	Total
Groceries	1,152,000	57,600	1,209,600
Butchery	100,800	5,040	105,840
Liquor	200,000	10,000	210,000
TOTAL	1,452,800	72,640	1,525,440

Source: African Development Economic Consultants (pty) Ltd. (ADEC)

Under Alternatives 5 and 6, retail turnover (mainly in Underberg and Himeville) would increase by about R70,000 to R100,000 per annum. This is probably insufficient to generate demand for any additional full-time retail workers. Not included in this total is a modest increase in fuel generated by a small number of additional trips. If the Road were closed as in Alternative 1, then the kwa Sani retailers stand to lose up to R1.5 million per year in turnover and 10 to 15 jobs.

IMPACT	CROSS-BORDER TRADE: COMMUTER-GENERATED RETAIL	
	Description	Score (w/mitigation)
Probability	Probable	3 (3)
Duration	Long-Term (>15 years)	4 (4)
Extent	Limited to Region	3 (3)
Magnitude	Low and will cause a slight impact on processes	-4 (-4)
SCORE	Significance Points (SP) = (Magnitude + Duration + Extent) x Probability	-33 (-33)
RANKING IMPACT	MODERATE POSITIVE Impact Positive impact on many kwa Sani retailers due to improved road conditions that allow for alternative forms of transport and more rapid taxi traffic from Mokhotlong. However, the benefits will be nominal. Mitigation measures include attention to road safety and security.	

Overall, there would be a **moderate positive** impact on commuter-generated retail trade in the kwa Sani portion of the Impact Area. There would be a positive impact on many kwa Sani retailers in Underberg and Himeville due to improved road conditions that allow for alternative forms of transport and more rapid taxi traffic from Mokhotlong. Overall, those retailers that cater to cross-border trade could see a 5% to 10% increase in their volumes. However, this represents only 0.3% of total retail trade in the Impact Area. The overall significance is scored at -33 (positive).

IMPACTS ON TAXI OPERATORS

Cross-border taxi operators would welcome improvements to Sani Pass Road. They stand to benefit from reduced maintenance costs along with increased speed and safety. However, the overall number of trips is not likely to increase dramatically except through income and demographic growth in Mokhotlong District. Taxis may see an increase in turnover of R28,800 to R32,400 per year from a five percent increase in trips. Closure of the Road under Alternative 1 would diminish taxi volumes and turnover by up to R648,000 per year, and result in the elimination of about ten jobs.

IMPACT	CROSS-BORDER TRADE: TAXI BUSINESS	
	Description	Score (w/mitigation)
Probability	High Probability	4 (5)
Duration	Long-Term (>15 years)	4 (4)
Extent	Limited to Region	3 (3)
Magnitude	Low and will cause a slight impact on processes	-4 (-6)
SCORE	Significance Points (SP) = (Magnitude + Duration + Extent) x Probability	-44 (-65)
RANKING IMPACT	MODERATE POSITIVE Impact Positive impact on all existing taxi operators who depend on cross-border traffic due to improved safety & speed, lower maintenance costs, and possibility of increased trips. However, volumes not likely to increase dramatically (more likely through increased incomes). Mitigation measures include road design attention to safety and security of travel.	

There would be a high probability of a low but **positive** impact on taxi operators throughout the Impact Area, under Alternatives 5 and 6. Overall, a significance score of -44 (positive) is given for this impact. The positive impacts would extend to all existing taxi drivers who depend on cross-border traffic, due to improved safety and speed, lower maintenance costs, and the possibility of increased trips. However, the overall volumes are not likely to increase dramatically. Higher incomes among Mokhotlong residents would do more to boost cross-border consumer trade and transport than an improvement in road conditions.

IMPACTS ON CROSS-BORDER COMMERCIAL TRADE

Upgrading of Sani Pass Road (as in Alternatives 5 and 6) may increase the volume of supplier purchases from KZN and to divert sourcing from Maseru to Pietermaritzburg. Purchases by local shops would increase from R300,000 to R450,000 per month or R5.4 million per annum. Remaining shops would procure up to R92,000 per month (or R1.1 million per year) in stock from Pietermaritzburg. This amounts to total potential purchases of R542,000 per month or R6.5 million per annum from KZN wholesalers. This increased turnover would translate into a need for about 8 to 10 more jobs. These impacts are summarised below.

Table 36. STOCK PURCHASE IMPACTS THROUGH SANI PASS, MOKHOTLONG TOWN TRADERS, IMPACT AREA

Store type	Status Quo		Potential (Alts 5, 6)	
	Per Month	Per Annum	Per Month	Per Annum
Local (4)	R 300,000	R 3,600,000	R 450,000	R 5,400,000
Expatriate (9)	R 0	R 0	R 92,300	R 1,107,700
TOTAL	R 300,000	R 3,600,000	R 542,300	R 6,507,700

Notes: Potentials for "expatriate" owned shops based on share share of Sani Pass imports to total stock of "local" stores.

Sources: Mokhotlong shop owners and African Development Economic Consultants (pty) Ltd.

There is greater flexibility among local shops to shift their sourcing from Maseru, Butha Buthe, and other locations to Pietermaritzburg. The "expatriate" traders have less flexibility, as they have ties to established supply lines based in Maseru. Over time, some of this business may also shift to Pietermaritzburg. Regardless of the timing, such shifts will generate a net loss to Lesotho overall, since the portion of existing supply sourced from Maseru would shift to Pietermaritzburg. As such, KZN would benefit at the expense of Maseru for commercial supply routing.

The opposite would occur under Alternative 1, where the supply routes from KZN to Mokhotlong would be severed and eastern Lesotho would become more dependent on supply from Maseru and other areas. As such,

suppliers in Pietermaritzburg would lose at least R3.6 to R4.0 million in turnover per annum, reducing employment by at least 10 to 12 workers. The impact from Alternatives 5 and 6, however, will be positive, as shown below.

IMPACT	CROSS-BORDER TRADE: COMMERCIAL STOCK SUPPLY	
	Description	Score (w/mitigation)
Probability	Probable	3 (4)
Duration	Long-Term (>15 years)	4 (4)
Extent	Limited to Greater Region (e.g., Pietermaritzburg)	3 (3)
Magnitude	High (processes are altered to the extent that they temporarily cease)	-8 (-8)
SCORE	Significance Points (SP) = (Magnitude + Duration + Extent) x Probability	-45 (-60)
RANKING IMPACT	MODERATE POSITIVE Impact Positive impact on KZN stock suppliers to Mokhotlong traders and shops due to improved road conditions and opportunity for use of alternative small vehicle transport. Increased primary market access. "Mitigation" measures such as increased safety of road design and improvements to access roads would increase probability of positive impacts.	

Under Alternative 5, there would be a probably, high, long-term **positive** impact on commercial stock suppliers in the region. The significance of the impact is scored at -45 (positive). The positive benefits would be distributed to Mokhotlong traders and shops due to improved road conditions and opportunities for use of alternative, small vehicle transport. There would also be increased access to primary markets.

SUMMARY OF IMPACTS ON CROSS-BORDER TRADE

Based on this assessment, it is apparent that the road upgrade project as envisioned under Alternatives 5 and 6 would generate a net positive impact on cross-border trade in the region measured in terms of turnover (R3.04 million per annum) and permanent employment (10 jobs).

Table 37. CUMULATIVE NET IMPACT OF SANI PASS ROAD UPGRADE ON CROSS-BORDER TRADE IN THE IMPACT AREA

Factor	Alternative					
	1	2	3	4	5	6
Turnover	(5,700,800)	-	-	-	3,040,100	3,040,100
Commuter Retail	(1,452,800)	-	-	-	100,000	100,000
Taxi Operators	(648,000)	-	-	-	32,400	32,400
Wholesale Trade	(3,600,000)	-	-	-	2,907,700	2,907,700
Employment	(36)	-	-	-	10	10
Commuter Retail	(15)	-	-	-	-	-
Taxi Operators	(10)	-	-	-	1	1
Wholesale Trade	(11)	-	-	-	9	9

Source: African Development Economic Consultants (pty) Ltd. (ADEC).

These benefits would be distributed broadly to retailers in the Underberg/Himeville area, taxi drivers who shuttle Mokhotlong passengers into KZN, and KZN commercial stock businesses (e.g., wholesalers) that supply Mokhotlong traders and shops. Mokhotlong consumers will also benefit from increased access to goods and services in kwa Zulu-Natal. Whilst the benefits will be felt broadly throughout the region, they are relatively shallow in magnitude.

In Alternative 1, impacts would be negative, with a net loss of R5.7 million in turnover per year and a net loss of almost 40 jobs. Such a loss would obviously imperil efforts established through local Integrated Development Planning to increase employment opportunities, especially for low- and moderate-skilled workers engaged in cross-border trade in the retail, wholesale, and transport industries.

Maximisation Measures. Without significant growth in income for Mokhotlong consumers, there would not be massive growth in demand for consumer goods and services in the region, regardless of whether the transport connections are improved. As with tourism, cross-border trade would best be expanded through a strategic and integrated approach to economic development that incorporates road and transport improvements with sustainable economic development initiatives. The Sani Pass road improvements will help leverage a modest increase in cross-border trade, but they will not by themselves bring a massive shift in disposable income.

Furthermore, an increase in Mokhotlong consumer “leakage” to kwa Sani will, by definition, result in some loss of turnover to shops in Mokhotlong unless there is an off-set by South African tourists and other visitors to Lesotho. With this in mind, it is recommended that the South African and Lesotho Governments work closely together on integrated economic development initiatives that would assist in expanding trade throughout the region to the maximum benefit on both sides of the border.

Construction Impacts

The construction of upgrade improvements to the Sani Pass Road itself will generate direct and indirect economic impacts to the local and regional economy. Direct construction impacts from the upgrading of the road are calculated in terms of employment and income from wages. The secondary “spin-off” effects from these economic benefits were then calculated. It should be noted that *construction* impacts are temporary, occurring during the construction period. Certainly there are lasting effects, most of which have been measured on the other economic sectors in this assessment. But the following assessment measures the effect of the project on the construction sector and its suppliers.

The economic impacts of upgrading the road on the construction sector are determined in large measure based on the estimated expenditures for construction. At this time, only a gross estimate of construction has been provided to the consultants for Phase 2, and it is assumed that this

construction estimate relates only to Alternative 5 (the Preferred Alternative). Thus, it is impossible to compare and contrast the construction impacts of the road amongst the various alternatives without estimates of cost for each alternative.

DIRECT IMPACTS OF CONSTRUCTION

The preliminary estimated cost for Phase 2 work on this project (under the Preferred Alternative) is R380 million, according to Arcus Gibb. This compares with the estimated cost for Phase 1 (first 14 km) of R230 million. There was a delay in awarding the contract for construction works for Phase 1, so the completion date for this phase is now pushed back to mid-2010. Works for the 21 km Phase 2 portion would theoretically commence in 2009 depending in part on the outcome of this EIA process.

Employment. Temporary (construction period) employment for Sani Pass Phases 1 & 2 (including tarring of the first 14km to the present South African Border Post) totals 355. The local component of this employment is 37.2% or **132**, according to the District Roads Department. Distribution of works for the seven contractors is summarised below.

Table 38. CONSTRUCTION STAGE EMPLOYMENT, SANI PASS ROAD UPGRADE, PHASES I & II, KWAZULU-NATAL, 2009

Contractor	Works	Employment				TOTAL	SHARE
		<u>Local</u>	<u>Share</u>	<u>Staff</u>	<u>Share</u>		
Vika Ndizane JV	Overall works	3	2.3%	9	4.0%	12	3.4%
Soil Company	Lab. Analytics	3	2.3%	5	2.2%	8	2.3%
Land Survey	Surveys	4	3.0%	2	0.9%	6	1.7%
Deep Hauls P/Hire	Bulk earth works	53	40.2%	41	18.4%	94	26.5%
Rob Business Partners	Project oversight	8	6.1%	12	5.4%	20	5.6%
Nolans	Bulk earth works	8	6.1%	27	12.1%	35	9.9%
Crossmore	Bulk earth works	53	40.2%	127	57.0%	180	50.7%
TOTAL		132	37.2%	223	62.8%	355	100.0%

Notes: Phase I, first 14 km preparation & construction works. Project progressed through Phases 2 & 3. Phase 3, 8 km planning & construction already awarded. Staff are own employees.

Sources: District Roads Department (Underberg) and African Development Economic Consultants (pty) Ltd.

The project is currently in Phase 2, with works in Stage 1 (gabion works and concreting of live drains). Stages 2 & 3 will see the construction of box culverts which may require the hiring of additional 32 to 40 people. The exact numbers are yet to be established. Currently, the majority of local jobs are in bulk earth works where a total of 106 people are employed. Bulk earth works also account for the largest share of total employment.

Income. Employees are paid the minimum prescribed wage of R11.50 per hour for a nine-hour day or 45 hour per week. Therefore, local wage and salary income from the project totals approximately R3.4 to R4.0 million per annum.

INDIRECT IMPACTS OF CONSTRUCTION

This injection of income into the local economy generates spin-off effects in terms of retail sales, rentals, transport, and other turnover effects. Retail turnover impacts alone are estimated at R1.6 to R1.7 million per annum. This turnover translates into 7 to 10 secondary jobs in the local economy. However, it is important to note that these employment, wage, and spin-off turnover effects are temporary and only occur until the end of the construction period. The business impacts from the Phase 1 construction have been mixed. Whilst retailers, suppliers, and construction contractors have no doubt benefited from construction, tourist-related businesses appear to have been negatively impacted.

Construction and debris along the route over the extended period have impacted negatively on the image of the Sani Pass Road as a tourist route, both for tour operators and independent travellers. Site reconnaissance conducted by the consultants noted mud and debris piled near the front of the Sani Pass Hotel, which has observed a negative impact on occupancy during the construction period to-date. Portions of Phase 1 construction appear to be adding substantial works that, if included in Phase 2, would clearly impact on the character of the road for tourists at least during construction. Because the Phase 2 portion of the construction includes only non-commercial areas through the uKhahlamba-Drakensberg Park, the direct business impacts during construction may not be as pronounced. However, if any portion of the road is closed during construction, there would be a direct impact on the turnover and livelihood of tour operators throughout the Impact Area.

SUMMARY OF CONSTRUCTION IMPACTS

Overall, upgrading of the road (under Alternative 5) will have a high **positive** direct impact on the local economy, when measured in terms of employment and income effects.

IMPACT	CONSTRUCTION: DIRECT CONSTRUCTION IMPACTS	
	Description	Score (w/mitigation)
Probability	Highly probable (most likely)	4 (4)
Duration	Short-term	1 (1)
Extent	Limited to Region	3 (3)
Magnitude	Very high and results in complete destruction of patterns and permanent cessation of processes	-10 (-10)
SCORE	Significance Points (SP) = (Magnitude + Duration + Extent) x Probability	-56 (-56)
RANKING	MODERATE POSITIVE Impact	
IMPACT	Positive direct impact from construction on construction employment and income in the region, with 120+ direct local jobs and up to R4.0	

million in direct income in the local / regional economy. However, these positive impacts are temporary and would only occur during the construction period.

As noted above, the road is generating 132 local jobs and salary income of R3.4 to 4.0 million on an annualised basis. The magnitude is ranked high (-10) and overall significance is expected to be moderately significant. However, these positive impacts are **temporary**, extending only through the construction period. There is the possibility that construction of Phase 2 will partly overlap with the completion of Phase 1. If so, then there would be added benefits in terms of jobs and wage income during that concurrent period. However, more information is required from Government on the schedule of construction in order to more accurately assess impacts.

Meanwhile, secondary impacts of construction activity on the tourism industry are expected to be **negative**. A negative impact is likely on many existing tourism-related businesses, including tour operators, lodging facilities, and retail establishments. Again, these impacts would also be **temporary**, extending only through the construction period. Ultimately, the direct benefits to the construction sector may outweigh the negative impacts on tourism during the construction period. This does not account for the long-term impacts of the road upgrade on the tourism industry, discussed earlier in this section.

IMPACT	CONSTRUCTION: SECONDARY IMPACTS ON TOURISM BUSINESS	
	Description	Score (w/mitigation)
Probability	Highly probable (most likely)	4 (3)
Duration	Short Duration	2 (1)
Extent	Limited to Region	3 (3)
Magnitude	High (processes are altered to the extent that they temporarily cease)	8 (4)
SCORE	Significance Points (SP) = (Magnitude + Duration + Extent) x Probability	52 (24)
RANKING IMPACT	MODERATE NEGATIVE Impact	
	Negative impact is likely on many existing tourism-related businesses, including tour operators, lodging facilities, and retail establishments. MITIGATION efforts are most critical in the construction phase, to include rapid implementation (NO delays or stops & starts), daily cleaning of all debris, no road blockages, no construction of major earthworks, etc.	

Mitigation Measures. Mitigation measures can be taken during construction to minimize the negative impacts on tourism. Such measures would include the rapid implementation of the project (no delays or “stops & starts”), daily cleaning of all debris, prevention of road blockages, avoidance of major earthworks construction, etc. By taking some or all of these measures, the negative impacts of construction experienced by the tourist industry during Phase 1 could be ameliorated somewhat.

OVERALL IMPACT SUMMARY

This economic impact assessment has examined the net cost-benefits of the upgrading of Sani Pass Road on the local economic base. The assessment focused on several key economic sectors that are most dependent on the use of Sani Pass Road: tourism, agriculture, wholesale and retail trade, and transport (which is integrated with the other sectors). The impacts were measured against the existing baseline for each of these sectors, in terms of turnover, employment, and other factors. The impact of the road on the construction sector itself was also examined.

Overall, it was determined that there are distinct differences in the economic impacts of the various alternatives for the project. It was also determined that the Preferred Alternative (5) will generate net positive but shallow economic benefits to a broad cross-section of stakeholders in the regional economy. At the same time, this alternative will also generate severe, negative impacts to stakeholders within several specific industries.

Table 39. **SUMMARY OF NET TURNOVER IMPACTS BY ALTERNATIVE AND TYPE, SANI PASS IMPACT AREA**

Type of Impact	1	2	3	4	5	6
Tourism	(53,108)	60	60	(19,152)	(32,791)	(44,065)
Existing Tours	(11,378)	(114)	(114)	(4,486)	(8,199)	(10,318)
New Tours	1,550	220	220	1,341	2,804	2,421
Lodging	(37,307)	12	12	(13,351)	(22,870)	(30,529)
Retail	(5,973)	(58)	(58)	(2,655)	(4,525)	(5,640)
Agriculture	(26,313)	-	-	-	3,284	3,284
Wool/Mohair	(26,013)	-	-	-	1,785	1,785
Agri Inputs (spares)	(300)	-	-	-	1,004	1,004
Dairy & Meat	-	-	-	-	495	495
Niche Ag/Beneficiation	-	-	-	-	Nominal	Nominal
Cross-Border Trade	(5,701)	-	-	-	3,040	3,040
Commuter Retail	(1,453)	-	-	-	100	100
Taxi Trade	(648)	-	-	-	32	32
Commercial Trade	(3,600)	-	-	-	2,908	2,908
Construction (Inc.)	N/A	N/A	N/A	N/A	4,000	4,000
(Temporary)						
TOTAL (excl Const)	(85,122)	60	60	(19,152)	(26,466)	(37,741)

Note: N/A means Not Applicable or Not Available.

Source: African Development Economic Consultants (pty) Ltd. (ADEC).

As shown above, only Alternatives 2 and 3 produce an overall positive impact on the local area economic base, as measured in terms of turnover to local businesses (which in turn translates into employment and income for area residents). Alternative 1 generates the highest negative net impact, at more than R85.1 million per year. The Preferred Alternative generates the third highest negative impact, at **R26.5 million** per year. Again, it is important to note that this alternative generates a positive but “shallow” (low) impact to a broad base of industries, including wool & mohair, agricultural suppliers, dairy and livestock farmers, niche agricultural producers, retailers that serve cross-border commuters, taxi operators, commercial traders, and operators of new tours. The construction industry and its suppliers would also benefit from the project, but only during the construction period. Overall, there would be R13.1 million in positive turnover impacts generated to nine key industries (including the temporary benefits on construction). Negative turnover impacts of R35.6 million are concentrated in three industries - existing tour operators, lodging facilities, and (to some extent) retailers oriented to the existing tourism market. Impacts were also translated into local employment, as shown below.

Table 40. SUMMARY OF NET EMPLOYMENT IMPACTS BY ALTERNATIVE AND TYPE, SANI PASS IMPACT AREA

Type of Impact	1	2	3	4	5	6
Tourism	(337)	1	1	(64)	(134)	(162)
Existing Tours	(24)	0	0	(9)	(17)	(21)
New Tours	3	0	0	3	6	5
Lodging	(300)	-	-	(50)	(110)	(130)
Retail	(16)	0	0	(7)	(12)	(15)
Agriculture	(1,166)	-	-	-	85	85
Wool/Mohair	(1,165)	-	-	-	80	80
Agri Inputs (spares)	(1)	-	-	-	3	3
Dairy & Meat	-	-	-	-	2	2
Niche Ag/Beneficiation	-	-	-	-	Nominal	Nominal
Cross-Border Trade	(36)	-	-	-	10	10
Commuter Retail	(15)	-	-	-	-	-
Taxi Trade	(10)	-	-	-	1	1
Commercial Trade	(11)	-	-	-	9	9
Construction (Inc.)	N/A	N/A	N/A	N/A	132	132
(Temporary)						
TOTAL (excl Const)	(1,539)	1	1	(64)	(38)	(67)

Note: N/A means Not Applicable or Not Available.

Source: African Development Economic Consultants (pty) Ltd. (ADEC).

In terms of employment, Alternative 1 generates a severe, negative impact on the local economy with a loss of over 1,500 jobs. These are jobs

that would be lost if the road were to be closed to vehicular access under this alternative. Again, only alternatives 2 and 3 generate a (nominally) positive impact. Alternative 5, the Preferred Alternative, generates the lowest negative impact in terms of jobs (besides alternatives 2 and 3), but there is still a loss of almost 40 formal positions. Most of the job losses would occur in the lodging industry, where Alternative 5 would result in a loss of 110 wage or salaried positions. As noted earlier in this assessment, a reduction of this magnitude would result in the loss of up to R3.0 million in annual wage and salary income to local lodging workers. The Preferred Alternative would create 132 local construction jobs, but these are temporary and would last only through the construction period. During the construction period only, the area would see a net gain of about 94 jobs.

Sectors

A description of the relative impacts on each of the key economic sectors within the Impact Area is described below.

Tourism. Upgrading of Sani Pass Road will have a negative impact on the existing tourism industry throughout the area. South African tour operators would be impacted most severely because of their dependence on the use of 4x4 vehicles that tourists could easily replace with alternative modes of transport. Adventure tourism is the largest component of the existing tourism market base. As such, major changes in the character of the Sani Pass Road are likely to impact on perceptions of the area for this use. Eco-tourism would be less impacted, so long as the upgrading improves rather than erodes habitat. Opportunities for cultural tourism for the mass market will increase due to improved access and increased speed, which would allow more time for Sotho cultural experiences.

On the other hand, the overall market for cultural tourism is smaller and the increase in tours into Lesotho will not overcome the loss in overall adventure tourism to the area. The lodging market is under-performing throughout the region, but especially in Mokhotlong. Additional efforts are needed to identify destination tourism attractions and to develop marketing strategies and tourism services in Mokhotlong in order to extend the tourist stay. Improving the Sani Pass Road by itself will not significantly increase mass-market tourism to Mokhotlong. That will require a comprehensive tourism development and marketing strategy, regardless of what changes may or may not occur to Sani Pass Road.

Whilst the turnover and job impacts are largest for the lodging industry, the impacts are actually more concentrated among tour operators when accounting for the baseline. For example, Alternative 5 will reduce lodging turnover by 12 to 16% of its existing base, but will reduce tour operator turnover by nearly 50% of its respective base. Thus, the relative impact on tour operators is quite devastating, even though the total numbers are higher for lodging. Similarly, the impact on tourist-oriented retailers would amount to 40% of their existing market base. But, if compared against all retailers, the lost tourist expenditures would have a more modest 3% impact.

Agriculture. Mokhotlong District is a centre for the wool and mohair industry. This industry is critical to Mokhotlong's economic future and already helps the district retain the highest employment rate in Lesotho. Transport of wool and mohair product is already oriented to Sani Pass. Improvements to the road will not have a positive impact on distributors because of incline and grade issues. In fact, there is some concern that tarring of the road would increase the risk for slippage and accidents. There are opportunities for diversification of Mokhotlong agricultural product and especially for beneficiation of wool and mohair into manufactured products. Upgrading of the Sani Pass Road will not have a major impact on these opportunities in the near term. Again, the larger impacts would be generated through strategic investment in the development of these industries. Kwa Sani agriculture is not likely to benefit significantly from improved road conditions on Sani Pass, although conditions would allow small delivery vehicles to access the market.

Cross-Border Trade. Commutation from Lesotho generates taxi traffic and retail turnover in kwa Sani. Improved road conditions will help reduce maintenance costs for taxis and other vehicles, but taxi drivers more likely to pass on cost savings if competition increases due to the opportunity afforded by improved driving conditions and all-vehicle access. Similarly, commercial suppliers engaged in cross-border trade from Pietermaritzburg will only see marginal benefits from improved road conditions unless "expat" businesses in Mokhotlong shift their sourcing to them from Maseru. In that case, Lesotho will see a net loss in supplier turnover in favour of KZN.

Construction. Construction period employment for Phases 1 & 2 totals 355, including about 130 local workers. Income generated to local households creates secondary effects in the regional economy, including an increase in retail sales. However, these effects are only temporary whilst construction is underway. Construction in Phase 1 has also caused disruption to tours and lodging facilities operating through the Sani Pass. If such disruption occurs in Phase 2, it is likely to cause more serious impacts in tour operating revenue.

Project "Viability"

As noted above, the overall impact of major upgrades to the road (as in Alternative 5) would be detrimental to the economic base in the region. A R380 million public investment would result in a net gain of 132 temporary jobs and R4.0 million in construction benefits over the short term, but a permanent loss of almost 40 jobs and R26.5 million in annual turnover to local businesses over the long term. Thus, the project has a net public cost in terms of the initial outlay as well as long-term cost-benefit. As such, it could not be considered as "viable" if measured on economic terms alone.

Part of the problem, as noted earlier in this report, is that Phase 2 of this road only represents a portion of the overall project to extend improvements across Lesotho. If judged on regional terms, the overall project may indicate a different economic impact as a regional transportation corridor.

But, this impact assessment has been limited to a review of the costs and benefits of Phase 2 alone, and has focused on tourism and trade between Underberg and Mokhotlong. Thus, the Phase 2 construction cost is not “amortised” as part of the larger corridor for regional economic benefit.

However, it must also be emphasized that a critical question here is the distribution of costs and benefits to various stakeholders. As noted above, 9 of the 12 industries analysed in this impact study will share in modest benefits from the road upgrade over the long term. The negative impacts are highly concentrated in three tourism industries, among the existing tour operators specifically. Lodging facilities could lose between 12 and 16% of their existing base, whilst tour operators are more likely to lose 50% of their current base. Such a loss would devastate these small, locally-based businesses. So, a question is the extent to which Government is willing to ameliorate the heavy impacts on a few industries in order to leverage modest benefits to others.

Mitigation Measures

Sani Pass Road is an important asset in the region. Clearly, the road plays a critical role in the kwa Sani adventure tourism market and in transport of wool product from Mokhotlong area farms. Upgrading the road to improve safety must take cognisance of the role of the road as a scenic trail for adventure through one of the world’s great heritage sites. However, economic development to both Makhotlong and kwa Sani is dependent less on the particular improvements to this road than to a **broad-based and sustained programme of investment in sustainable tourism, infrastructure, and agricultural beneficiation**. Local residents have even indicated a need for *basic* improvements in local infrastructure as a priority over Sani Pass.

The project will have a serious, deleterious impact on tour operators and lodging facilities in the area. However, these impacts do not have to represent a “fatal flaw” for the project if a strategic and comprehensive effort is made by Government to assist these local industries shift to a different tourism economy. A Market Analysis should be conducted to determine the types and programmes for specific **destination** tourism attractions that could be developed or accessed to help ameliorate the loss of specialty Sani Pass tour operations. Based on those findings, a Strategic Plan for Sustainable Tourism and Agricultural Development should be created to harness the economic potential of this beautiful region whilst also protecting its unique natural resources and quiet isolation.

If Government proceeds with Alternative 5 for upgrading this road, the impact analysis shows that there will be a need for financial intervention to assist local tour operators and lodging facilities transition away from a dependence on the adventure tourism market. It is recommended that the cost of assisting tour operators and lodging facilities be incorporated into the cost of the road upgrade programme. The specific costs (and benefits) could be determined through the Market Analysis and Strategic Plan noted above.

Ultimately, the planning for upgrading of the Sani Pass must be integrated with the broader questions of tourism and economic development for the cross-border region. By itself, the upgrading of the Sani Pass Road will not **maximise Government aims of increasing tourism and trade** between the Underberg and Mokhotlong, or between South Africa and Lesotho. The road is only a small part of a much larger question about investment in tourism and agriculture to produce long-term regional economic growth.

APPENDIX

**Table A1. ANNUAL EVENT ATTENDANCE, SANI
PASS MARKET AREA, KZN, 2009**

Event	Organiser	Destination	Number	Share
<u>Adventure Sport</u>			<u>3,700</u>	<u>21.3%</u>
Subaru Sani2C Adventure	N/a	Draks WHS	1,200	6.9%
Subaru Sani2C MTB Race	N/a	Draks WHS	1,200	6.9%
Drak Challenge	Hansa Powrade	Draks WHS	900	5.2%
The Drak MTB Xperience	N/a	Draks WHS	300	1.7%
Drak 250 Off-road (motor)	Sani Pass	Draks WHS	100	0.6%
<u>Eco-tourism</u>			<u>751</u>	<u>4.3%</u>
Wild Flower Walk	Sani WESSA	Draks WHS	80	0.5%
Hiking Negwenya	N/a	Draks WHS	15	0.1%
Bells Fly-fishing Trophy Challenge		Draks WHS	56	0.3%
Hiking: Bushman's hiking hut		Draks WHS	300	1.7%
Hiking: Surprise Cave		Draks WHS	300	1.7%
<u>Sporting Activities</u>			<u>6,768</u>	<u>38.9%</u>
Tennis			644	3.7%
SPAR Senior Tennis Tournament		Himeville	84	0.5%
Himeville Junior Tennis Tournament		Himeville	240	1.4%
Himeville Junior Tennis Tournament		Himeville	200	1.2%
Himeville Veteran's Tennis Tournament		Himeville	120	0.7%
Golf			148	0.9%
Glengarry Golf Club Champs		Drak Gardens	32	0.2%
CANSAs Challenge Golf		Drak Gardens	36	0.2%
Charity Golf Tournament		Drak Gardens	80	0.5%
Polo SH			5,586	32.1%
Polo Club Opening (18 goal)		Himeville	1,942	11.2%
Polo 4 X 4		Himeville	1,798	10.3%
Polo Tournament		Himeville	1,846	10.6%
Other Sport			390	2.2%
Himeville Open Senior Tournament		Himeville	150	0.9%
Underberg Horse Trials		Underberg	200	1.2%
Miniature Model Aircraft Flying		Underberg	40	0.2%
<u>Festivals, shows & fairs</u>			<u>6,070</u>	<u>34.9%</u>
Music Revival: Piano, Cello, & Violin		Underberg	N/a	N/a
20th Spalshy Music Festival		Underberg	2,500	14.4%
Underberg Farmers' Association Show		Underberg	2,500	14.4%
Garden Club Open Gardens / Fair		Underberg	1,000	5.8%
Swartberg Flyfishing Festival		Draks WHS	70	0.4%
<u>Conferences</u>			<u>90</u>	<u>0.5%</u>
WESSA Talk - Living Lakes Conference		Underberg/Draks WHS	65	0.4%
Raptor Identification Course		Underberg/Draks WHS	25	0.1%
TOTAL			17,379	100.0%

Notes: Regular calendar year events. Duration is one day on average. Visitors stay 1-3 days.

Sources: SADCTO & ADEC.

**Table A2. BUSINESS SPACE INVENTORY, UNDERBERG
& HIMEVILLE, KWAZULU-NATAL, 2009**

Economic Use	Square Metres	Share
Fashion Décor	790	3.0%
Supermarket	11,200	42.3%
Beauty & wellness	300	1.1%
Info, books, stationery & gifts	490	1.9%
Convenience retail	305	1.2%
Auto related	400	1.5%
Liquor store	1,500	5.7%
Grocery	870	3.3%
Contract & plant hire	2,900	11.0%
Agri inputs	850	3.2%
Butchery	300	1.1%
Dry clean & repair	190	0.7%
Medical & undertaker	1,340	5.1%
Sport	380	1.4%
Post & telecom	650	2.5%
Restaurant & takeaway	640	2.4%
Banking & finance	410	1.5%
Furniture	320	1.2%
Civic	300	1.1%
Estate agents	300	1.1%
Distribution	300	1.1%
New space	750	2.8%
New space	750	2.8%
Other	220	0.8%
TOTAL	26,455	100.0%

Sources: Underberg & Himeville site reconnaissance,
spot interviews and African Development
Economic Consultants (pty) Ltd.

**Table A3. BUSINESS SPACE INVENTORY,
UNDERBERG, KWAZULU-NATAL, 2009**

Economic Use	Square metres	Share
Fashion Décor	790	3.2%
Supermarket	11,200	44.9%
Beauty & wellness	300	1.2%
Info, books, stationery & gifts	490	2.0%
Convenience retail	180	0.7%
Auto related	100	0.4%
Liquor store	1,100	4.4%
Grocery	470	1.9%
Contract & plant hire	2,600	10.4%
Agri inputs	850	3.4%
Butchery	300	1.2%
Dry clean & repair	190	0.8%
Medical & undertaker	1,340	5.4%
Sport	380	1.5%
Post & telecom	650	2.6%
Restaurant & takeaway	640	2.6%
Banking & finance	410	1.6%
Furniture	320	1.3%
Civic	300	1.2%
Estate agents	300	1.2%
Distribution	300	1.2%
New space	750	3.0%
New space	750	3.0%
Other	220	0.9%
TOTAL	24,930	100.0%

Sources: Underberg site reconnaissance, spot interviews and African Development Economic Consultants (pty) Ltd.

**Table A4. BUSINESS SPACE INVENTORY,
HIMEVILLE, KWAZULU-NATAL, 2009**

Economic Use	Square Metres	Share
Convenience retail	125	5.4%
Auto related	300	12.9%
Liquor store	400	17.2%
Grocery	400	17.2%
Museum	800	34.4%
Contract services	300	12.9%
TOTAL	2,325	100.0%

Sources: Himeville site reconnaissance, spot interviews and African Development Economic Consultants (pty) Ltd.

**Table A5. TOTAL COMMERCIAL SPACE INVENTORY,
MOKHOTLONG TOWN, LESOTHO, 2009**

Economic use	Square Metre	Share
Wholesale (Cash & Carry)	1,950	11.8%
Wholesale & Hardware	1,500	9.1%
Hardware & Electrical	800	4.8%
Supermarket	7,636	46.3%
Grocery	170	1.0%
Footwear	280	1.7%
Govt/civic	200	1.2%
General Dealer	760	4.6%
Auto Accessory Repairs	100	0.6%
Auto Repair	200	1.2%
Funeral Services	600	3.6%
Casket sales	60	0.4%
Tea & Coffee Shop	80	0.5%
Bakery	200	1.2%
Textiles	300	1.8%
Clothing	500	3.0%
Document processing	60	0.4%
Banking	800	4.8%
Logistics	300	1.8%
TOTAL	16,496	100.0%

Note: Commercial related space in Mokhotlong Town centre.

Sources: Mokhotlong Town site reconnaissance, spot interviews and African Development Economic Consultants (pty) Ltd.