

Proposed upgrade to the Sani Pass; Phase II Avian component of the biota – scoping report

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Executive summary

The current Sani Pass was surveyed a number of times with a view to assessing the ways in which the proposed upgrade envisaged in Phase II could impact on the avifaunal component of the biota. The nature of the avian-biota was assessed using a number of recent databases and reference works along with personal knowledge and the experience of running more than 100 bird watching tours up Sani Pass and these data are present in a separate report.

Consideration was then given to those elements of the ecotourism community based on the Sani Pass for whom birds are an important constituent and an assessment was made of their interests in Phase II and its likely impacts on them.

All the potential factors contained in the Background Information Document were individually assessed in the light of comments assembled from a variety of sources.

Using the above, a list of most, if not all, potential problem areas has been compiled and some suggestions made as to how these impacts may be investigated.

1. Introduction

It is a requirement of the scoping process of an Environmental Impact Assessment (EIA) that each specialist report should cover the following five issues, as laid out in the Background Information Document (BID).

- 1.A. Investigate and gather information on the proposed site, in order to establish an understanding of the area.
- 1.B. Establish how the proposed development activities will potentially impact on the environment.
- 1.C. Identify Interested and Affected Parties (IAP) and relevant authorities by conducting a Public Participation Process (PPP).
- 1.D. Identify potential environmental impacts through investigation and PPP.
- 1.E. Describe proposed and potential alternatives.

This specialist report gives consideration to the above from the point of view of the avian component (i.e. birds) of the biota, those professional and amateur organisations and individuals who earn a living from bird-related activities and those members of the wider community for whom bird-based activities are important. Comments will be made on other potential environmental impacts, especially when they relate to ecotourism but if these are not specific to the avian component of the investigations then they will have to be transferred to another one of the EIA specialist reports.

1.A. Investigate and gather information on the proposed site, in order to establish an understanding of the area.

Physical environment: Since June 2005 I have operated a bird-based ecotourism company in Underberg and have run at least 100 expeditions up Sani Pass into Lesotho and this has given me the opportunity to get to know the Sani Pass. As part of this specialist investigations five additional trips were made up Sani Pass to collect further information on the physical environment.

Avian biota: An extensive investigation was carried out to elucidate the nature of the avian community using five sources of data: 1. the entire dataset compiled for the Southern African Bird Atlas Project (SABAP) was acquired, 2. the avian data specific to the $\frac{1}{4}^{\circ}$ by $\frac{1}{4}^{\circ}$ grid-cell (i.e. 2929CB) containing the entire Phase II of Sani Pass were

extracted for detailed analysis, 3. reference works were consulted to identify all the endemic, near endemic and breeding endemic bird species occurring in 2929CB, 4. the southern African Red Data Book (Birds) was used to establish the regional conservation status of all species in the immediate vicinity, 5. a number of texts and approaches were used to establish those species considered by bird watchers and other ecotourists as 'charismatic'. (See Piper 2008 for a description of the above process and all the associated data.)

Bird-based activities: Based on local knowledge and interviews with local service providers the nature of the ecotourism community was elucidated and is described below.

It is estimated that there about 1000 ecotourists visiting Sani Pass per month, on average, and many of these have a casual interest in the birds they see. Of these ecotourists approximately 100 per month have a serious interest in birds. These may be divided into '*bird watchers*' who have a genuine interest in all species of birds and find them all equally interesting and '*twitchers*' (they are the 'train spotters' of the bird world) who come specifically to increase their life-lists and are dedicated to finding those species which are uncommon (i.e. in the sense of being range-restricted), endemic (i.e. confined to southern Africa), charismatic or which they have not previously seen and still need for their life-lists (Piper 2008). Then there are the conservationists who are dedicated to ensuring the survival of those species which are of conservation importance, generally they are under threat.

To service this bird-based community, this subset of ecotourists, there is an industry of 1. tour operators, 2. tour guides, 3. outfitters and 4. hospitality suppliers and all these qualify as IAP's, as described below.

1. *Tour operators.* There are four major tour operators in the southern Drakensberg (Major Adventures, Sani Pass Tours, Drakensberg Adventures and Thaba Tours) who regularly run general tours up Sani Pass and some of these operators may have guides who have a rudimentary knowledge of birds and may provide a commentary thereon. There are a number of professional tour companies based in southern Africa (e.g. Rockjumper Tours, Birds Africa, Birding Africa, Mal'Dafrica, Safari sejours, Tropical Birding etc.) who contract local tour operators or tour guides to act as sub-contractors for them when running bird tours up Sani Pass.

2. *Tour guides.* There are independent tour guides who are qualified as *Nature Guides*, *Mountain Guides*, *San Rock At Custodians* etc. (e.g. Philip & Christeen Grant, Rudi Kruger, Russell Suchet, Matthew Wiggill etc.) who may also provide some input on birds. There are four local guides who offer specialist bird tours: Malcolm Gemmell, Stuart McLean, Johan van Jaarsveld and Steven Piper.

3. *Outfitters.* These include all those emporia which provide the ecotourists with goods (e.g. bird field guides, binoculars etc.) or services (e.g. repair their punctured tyres, rescue their broken down cars etc.) and are too many to name, given the small fraction of each of their businesses that depend on ecotourists.

4. *Hospitality suppliers.* Tourism is reckoned to be the second biggest employer and income generator in the district, only agriculture is more important. There are more than 20 accommodation suppliers in the district offering more than 1400 beds and almost all of these have had bird watchers stay with them. Some, such as *Pied Piper Expeditions* have more than 75% of their occupancy based on bird watchers and other nature-based tourists.

1.B. Establish how the proposed development activities will potentially impact on the environment.

The upgrading of the road will impact on the environment in three different ‘*epochs*’: 1. during construction, 2. during on-going maintenance and 3. in subsequent operation. Each of these will be considered separately.

1.B.1. During construction. There will be two major ways in which construction will impact on the avifauna.

1. The extra vehicular traffic will chase birds away from the road edge. This effect has been observed in Phase I of this project. Bird watching along this section of the road used to be an important component of any tour up Sani Pass and now this section is just driven through with few, if any stops.

2. The extra workers, at times hundreds of them, will directly impact on the flora and fauna in a number of ways. Currently on Phase I they are seen to use the veld as a latrine, they start fires especially in cold weather and discard their litter at the roadside. There is already some deliberate disturbance of animals along the Sani Pass, e.g. an Eland was shot and killed next to the road in 2007 and this will certainly increase with more

workers. It is feared that blasting will cause disturbance, especially in the upper reaches of Sani Pass to the vultures and other raptors that roost and nest there (see maps from Krüger 2007 in Piper 2008). There is a real concern in the tourism community that Sani Pass will be closed unpredictably thus disrupting tourism activities. For two years now the cut and fill operations in Phase I have been an eyesore and have elicited negative comments from ecotourists and it is suspected that this problem will be even worse in Phase II. The previous road works along Phase II have left ugly scars in the landscape and it appears that in the upgrade to Phase II no attempt will be made to rectify these will that they will just be added to.

1.B.2. During on-going maintenance. Once the upgrade is complete it will be essential to have an on-going maintenance programme to clear away the rock-fall and other debris that will continually accumulate on the road. Visits to similar mountain passes in Lesotho, e.g. Mafika lisiu Pass and South Africa, e.g. Chapman's Peak Drive bear witness to the continuous need to keep the road open. To this must be added the problems which will result from snow and ice in winter; even the Lesotho Government provides a snow plough and salt-dispensing team on some of its passes which have tarred surfaces. The experience on the Sani Pass in recent years has been that the only time maintenance is provided is when there is an emergency or a public outcry. The authorities need to note that there is now a continuous maintenance programme on Chapman's Peak Drive since the State was successfully sued for negligence when a vehicle was severely damaged as a result of a rock fall. Should there be a maintenance team then they will bring with them a slew of problems, especially of disturbance. Some of the best bird watching on Sani Pass is of birds at the edge of the road, often perched up on shrubs and bushes there and disturbance will reduce this.

1.B.3. During on-going operation. Once the upgrade is complete the volume of traffic is likely to increase with more vehicles using the pass, heavier vehicles using the pass and more commercial vehicles using the pass (after all, that the main purpose of the upgrade!). Because the surface will improve the speed of the vehicles will increase and this will impact on both the birds and ecotourists. It is commonly observed that there are fewer birds seen along tarred roads than along dirt roads in the same habitats and this is because proportionately more birds are killed along roads where the speed of the vehicles

is higher and so they learn to avoid such roads. Because of the increased speed of the vehicles up and down Sani Pass there will also be greater dangers to ecotourists, this is already obvious along Phase I of the upgrade. Many bird watchers have signs on the back of their vehicles which read “*Beware sudden stops Bird Watchers!*” It is of no avail to place stopping bays at the sides of road because birds just do not line up at designated points to be observed. Lastly, and this is my personal view, that anyone who believes that motorists will obey the speed limits along the new Sani Pass road is, at best naïve and at worst a fool. (At present it is regularly observed that some motorists, cyclists and quad bikers travel between the ‘switchbacks’ and Twin Steams at over 40 kph. To imagine that they will travel at the design speed of 30 kph once the road has been upgraded is beyond belief.) Currently, Sani Pass is a *Mecca* for people with unlicensed vehicles, e.g. Quad bikes and Trail Bikes and often ridden by unlicensed riders and even under-aged riders. I have never seen the Road Traffic Police on Sani Pass nor have I ever seen the members of the South African Police Services stop unlicensed vehicles or ask riders for their licenses. On a new high-speed road things will just get even worse and certainly more dangerous for nature-based tourists.

1.C. Identify interested and affected parties (IAP) and relevant authorities by conducting a public participation process (PPP).

An effective PPP was undertaken in five different ways: 1. by attending meetings hosted by Arcus Gibb, 2. by meeting with individual tour operators, 3. by speaking with a number of drivers of tour vehicles, 4. in meetings with independent bird tour guides and 5. in conversations with scores of bird watching tourists. See section 1.B above for a description of these IAP’s.

1.D. Identify potential environmental impacts through investigation and PPP.

The following list of potential impacts has been compiled using the BID, summaries of potential impacts provided by the Arcus Gibb investigation team, personal observation and feedback from the process described in 1.C above. The list below is numbered for ease of cross-reference.

1.D.1. Traffic and transportation. Please see above (i.e. section 1.B) for a description of the potential impacts on birds and bird-based tourism during the following three epochs: during construction, during maintenance and when the upgrade is complete.

1.D.2. Tourism. There are three components to tourism on Sani Pass and these are Economic Tourism, General Ecotourism and Nature-based tourism. Economic tourism consists of those people moving back and forth between Lesotho and South Africa for economic purposes, e.g. shopping, business, medical etc. This component will surely increase as the upgrade is designed almost exclusively to cater for this component. The use of tour operators for general ecotourism will likely decrease as the sense of adventure will have been removed and there will be no need for 4*4 vehicles. It is not known if more general tourists will come to Sani Pass using their own vehicles; on the one hand they may initially until the novelty wears off but on the other hand it will decrease as there is so little to do or see at Sani Top if you do not have an interest in the natural world. It is possible that bird-based tourism will shift to other localities because most bird watchers prefer to be away from the crowds, they seek solitude and a sense of being at one with the natural world. This is also true of flower spotters and other nature-based tourists.

1.D.3 Taxi operators. Fairly cordial relations exist between taxi drivers and tour operators because there are few of them they tend to recognise one another and so drive with mutual respect, courtesy and common sense, especially as the road is so dangerous that they know that a single mistake or stupid response could be fatal. When the road is upgraded there will be two consequences: 1. the traffic volumes will increase and 2. it will not be so obvious that the road is even more dangerous when wet or iced up. Consequent upon these will be that the levels of mutual respect and courtesy will decrease because fewer drivers recognise each other. Common sense and caution will no longer be so important because fewer drivers will understand the potential dangers of the Sani Pass. Furthermore, because the road surface is better and because the engineering design team refuse even to contemplate traffic calming devices and because it is likely that the traffic police will never ever visit the pass, the traffic will go so much faster with consequent dangers to bird watchers, flower spotters and other nature-based tourists who stop on or next to the road to observed whatever has caught their fancy.

1.D.4. Transport trade route. It is my personal observation that some of the drivers of big trucks drive with mutual respect, courtesy and common sense, however, some do not

and in fact seem to go out of their way to intimidate other users of the road. As the volume of heavy traffic will increase this is likely to become more of a problem.

1.D.5. International relations and linkages with Lesotho. The extra passage of goods through to Lesotho, especially Mokhotlong is likely to be an important factor in containing price increases for the already poor population there. However, there is some unease by tour operators along the Underberg to Mokhotlong route that it will no longer be so attractive to travel that route when there is more traffic. If the upgrade starts a process whereby the movement of people is easier between South Africa and Lesotho then that could open up opportunities for more Lesotho-based ecotourism on both sides of the border. (However, the movement of Lesotho tourists into South Africa is inhibited by the indignity of a physical search to which most Lesotho citizens are subjected but not so for South African and foreign tourists.)

1.D.5. Biophysical environment (Fauna, Flora, Habitats etc.). While the avian component of the biophysical environment is discussed in this report the non-avian components are discussed by other specialists in their reports. The botanical component is discussed by Dr. Elsa Pooley. While the habitats will be discussed in detail by Dr. Pooley they may be summarised as follows: 1. riverine along the Mkomazana River at the start of Phase II, 2. upland grassland as far as the old Forestry Station, 3. protea savannas with many large boulders until just before the S.A. Border Post, 4. Leucosidea scrub along the medium reaches of the Mkomazana River, 5. sub-alpine grasslands from Twin Streams until the switchbacks and 6. Alpine grasslands from the switchbacks up wards. The nature of the avian community is presented extensively elsewhere (Piper 2008), this report lists all the bird species thought to occur along the Sani Pass and gives some idea of the frequency with which they may be seen and special mention is made of a number of ways in which the more charismatic species were identified, lists are provided of endemic, near endemic and breeding endemic species as well as species of conservation concern.

1.D.6. Social environment. From the point of view of bird-based activities on Sani Pass the structure of the ecotourism community is presented above, i.e. section 1.A along with suggested impacts that the upgrading of the road could have on these activities.

1.D.7. Materials management. It has been suggested that there could be three ways in which materials management could impact on the birds along the Sani Pass and bird-based tourisms. 1. Cuts will remove many plants from close to the road and will destroy microhabitats which birds use for foraging and perching; these species seen next to the road are an important component in bird watching tours. 2. Fills will have a similar impact on vegetation and habitats below the road. Currently these below-the-road habitats are often the most profitable for bird watchers. 3. The movement of material during construction is likely to cause massive disturbance and displacement of many bird species, as has, and is happening in Phase I. However, with both cut and fill, there is an opportunity to creatively construct retaining walls which mimic the natural environment and provide new places for small plants to grow and also for birds to forage and rest. The planting of shrubs and trees next to the road will certainly help ameliorate the damage caused by construction, but this will take many years.

1.D.8. Hazardous substances. The hazardous substances arising during construction will mainly be concrete and tarmac, or whatever other substances are used to coat the road. These may impact on water quality downstream of the point of application and thence impact on birds and other components of the ecosystem. It is recommended that an interaction take place with the design engineers to determine which potentially dangerous materials are likely to be used during construction.

1.D.9. Waste management. During construction there will be a problem with waste of many kinds. Once the upgraded road is operational the current problem of litter will increase, currently this is mainly associated with the taxis, however, it will increase as many new drivers enter the Sani Pass who are not as environmentally aware as most ecotourists. If the border post is moved down from its current position then there will be an increase in the need for toilets as currently there is a small problem with human ordure, especially from those many people who walk up and down Sani Pass.

1.D.10. Safety. There have been ten deaths on Sani Pass (M. Clarke pers. comm.) and eight of these were of passengers riding on top of heavy trucks. But this does not include the two deaths of riders of quad bikes and at least one pedestrian. However, given that the number of vehicles will increase and that the speed of vehicles will increase dramatically it is likely that the number of deaths will increase significantly, particularly of

pedestrians, especially among bird watchers and other ecotourists as they walk all over the place. Many ecotourists have expressed the view that they have a right to wander about as this is a World Heritage Site!

1.D.11. Border control. From the point of view of nature-based tourism, it is essential to move the current South African Border Post down to some lower point where there can be more parking and a greater capability to handle larger volumes of traffic. Currently, tempers wear a little thin when the larger tour groups come through. While the tour operators are delighted at the way the existing toilet facilities have been upgraded they are, at times, clearly not adequate and this situation will get worse as the volumes of traffic increase.

1.D.12 Water resources. There is no record of anyone having raised water resources as a problem, in terms of nature-based tourism, except that the current gravel road is producing more silt than the rivers can cope with.

1.D.13. Erosion. Many ecotourists comment on the extent of soil erosion and the number of erosion gullies on the Sani Pass especially in the 'switchbacks' region at the top. Some remark that it is surprising that there have not been more mud slides and rock falls in the upper reaches where it is apparent that there are no structures to hold the soil and other depositional materials in place. There is a real fear among tour operators and ecotourists and other environmentally aware tourists, especially those with an background in engineering that an increase in the width of the road and the addition of road surfaces largely impermeable to water will greatly increase the water run off during storms and so increase the rate of soil loss.

1.D.14. Sense of place. A visit to the Sani Pass is a magical experience, enjoyed by local and foreign tourists alike. Almost every overseas tourist visiting southern Africa and including a day or two up Sani Pass claims that the day 'up the pass' was the best day of their whole holiday (pers. obs.). For bird watchers, the experience is even more exciting because the bird species seen there are so beautiful and dramatic and some of them are endemic and thus can not be seen in any other part of the world (pers. obs.). Part of the '*Sani Pass Brand*', that has arisen over the last 50 years, is that the road is part of the adventure and most of the ecotourists asked about the upgrade say that the current road gives them a sense of adventure and that is an important component of their ecotourism

experience. Thus to replace the road with one suitable for two-wheel drive vehicles will remove that spirit of adventure, so they claim.

1.D.15 World Heritage Site. “The Sani Pass goes through a World Heritage Site, one of the most beautiful places in southern Africa and one of the dramatic landscapes in the world and there should never ever have been a road here in the first place!” This is the view of an ecotourist and certainly echoes the sentiments of many. It is the opinion of many local residents that that the upgrade will happen irrespective of the views of the ecotourism community, however, the least that the Department of Transport and the other commissioning agents should do is to take effective and realistic measures to ensure that the maximum speed limits are enforced by the construction of traffic calming and other devices.

1.D.15 Culverts and bridges. Though currently few in number, in Phase II there will be many more and this is important as these structures can be used by birds to build nests on. It is recommended that discussions be held with the design team to ensure that the bridges and culverts are constructed in such a way as make them more bird-friendly. (There are currently four White-throated Swallow nests under the old bridge over the Gxalingenwa Stream and it is suggested that this bridge not be destroyed when the new bridge is complete.)

1.D.16 Drainage lines at the side of the road. On a number of mountain passes in Lesotho the drainage lines at the sides of the road are extremely deep and act as vehicle traps especially during snow.

1.D.17 Lack of road shoulder. When there are heavy snow falls or at night when the edge of the road is not easily seen the lack of a road shoulder can be dangerous to motorists.

1.D.18 Aesthetics. It is great feared among many ecotourists that the road will be an unsightly eyesore on the landscape and will detract from the beautiful ‘viewshed’ that includes the both sides of the Mkomazana River valley. Currently this is the case with Phase I of the Sani Pass which elicits many derogatory comments from visiting bird watchers, especially those from overseas.

1.D.19 Compromise is necessary for a multi-use facility. A some of the public and private meetings in the PPP there were interchanges between various stakeholder groupings, often with each putting their own point of view with little or no regard for any other

users. The point has been made more than once that it will be necessary to come to a compromise which allows most stakeholders to have their domains protected.

1.D.20 *Previous lack of control.* The point has been made above, many unlicensed vehicles and drivers/cyclists use the Sani Pass and no control has ever been exercised over them and so there is a perception among a number of ecotourists that this will continue in the future. Among the ecotourism service providers there is a fear that this perception of fear among ecotourists will lead to a drop in future business.

1.E. Describe proposed and potential alternatives.

As was claimed above, tourism is the second most important source of employment and income generation in the KwaSani District and it is likely that much of the attraction of the District results from the presence of the Sani Pass. It is felt by many people in the local tourism industry that the proposed upgrade will make the Sani Pass less of an adventure and so less attractive and that this make the whole southern Drakensberg less appealing to tourists. On the other hand, it is recognised by some that there are sections of Sani Pass which are structurally unsound and unless steps are taken to secure these, especially in the upper reaches, there could be a massive wash away or rock fall which could, at its worst, close the pass for months (as has happened in the past) or even for years.

A number of alternatives have been proposed. These include the following.

1. Secure all those sections of the upper reaches of the Sani Pass where wash away, land slide and rock fall are imminent. Most important is the provision of adequate drainage and storm water control.
2. Bring in a small amount of material ('small' that is, relative to the amount needed to completely upgrade the entire Phase II) to bring the road up to a uniform quality gravel road and then provide an adequate on-going budget to maintain it.
3. The most important boost to ecotourism in the southern Drakensberg will come, it is universally agreed, from tarring the road between Nottingham Road and Himeville.

Reference

Piper 2008. *The ornithological importance of the Sani Pass 1/50,000 grid-cell 2929CB as determined from the Atlas of southern African birds: 1987-1992 and other sources.* Unpublished report submitted to Arcus Gibb 20th October 2008. 36 pp.

