

Case Study

The problems facing sustainable and responsible tourism in the Vredefort Dome

Tourism in the Vredefort Dome depends heavily on the environment. With tourism being everybody's business, we must use our tourism resources – our fauna, flora and cultural heritage of local people in a responsible way without endangering further usage of these resources. The question then remains: is it possible to develop the Vredefort Dome in a sustainable manner so that it, if or when, being declared a World Heritage Site can become one of the top tourist destinations in South Africa.

After visiting and interviewing Mr. Johannes v.d. Merwe (member of the elected Vredefort Dome Committee and owner of Thabela Tabeng) as well as working through the Vredefort Dome Conservancy Strategic Development Management Plan of February 2002, done by Contour Project Managers and sponsored by the North West Parks and Tourism Board, some definite problems in the Dome came to light.

Pollution:

Pollution is changing the natural environment so that it becomes harmful to living things. This is usually caused by poisonous chemicals that are released into the environment. In the Vredefort Dome, water pollution is the biggest problem. The Vredefort Dome is situated on both sides of the Vaal River. The Vaal River is the major surface water body, but the river ecology is under severe pressure from upstream contamination. Pollution is caused by industries and mines higher up the river at Vanderbijlpark and Vereeniging. Chemical waste products are released into the river. Some agricultural farms next to the river release chemical waste into the water, which eventually end up into the Vaal River. Boats, used by residents and tourists, use oil and if it spills into the water, fish and other water animals die. All these influence the delicate bio diversity in the river.



Solution:

- Pollution: The biggest conservation problem is the control of pollution. The knowledge and technology needed to control pollution effectively are now available: pollution-free engines can be built, pollution-free factories have been put into operation and techniques for controlling agricultural insect pests with a minimum use of persistent pesticides have been developed. For economic reasons, none of these measures are being applied. The ultimate control of pollution will presumably involve
 - the decision not to allow the escape into the environment of these pesticides that are harmful to life,
 - the decision to contain and recycle those substances that could be harmful if released into the environment in excessive quantities, and
 - the decision not to release into the environment pesticides that persist and are toxic to living things.

Pollution control does not mean an abandonment of existing productive human activities, but their reordering so as to guarantee that their side effects do not outweigh their advantages.

Alien plant infestation:

In the Vredefort Dome there is tremendous concern about the level of alien plant infestation. The alien Bluegum trees are the worst. They live on the riverbanks and absorb as much as 200 liter water each per

day. This is more than 3/4 of the other indigenous trees. Another big problem is the hyacinth plant that lives on the water surface. The photos show the seriousness of this infestation.



Hyacinths covering the water surface of the Vaal River.



Hyacinths in the Vaal River. If not addressed this plant is an infestation.

Solution:

- Alien plant infestation: the object is to remove all existing alien plants that have the potential of spreading. A five-year follow-up control plan based on the latest alien plant control technology and knowledge must be implemented. Cost effectiveness is an important criterion and one must think of using the unemployed people to cut down these alien trees. For eco-tourism activities, local school children can also help by removing these plants after being lectured on the dangers of alien plants.

Soil Erosion:

Currently soil erosion is due to unsustainable land use practices and has to be minimized.

One must address gully erosion to prevent rich soil being lost.



Solution:

- Soil erosion: Soil erosion can be minimized by preventing excessive overgrazing by herbivores and the wise use of fire. The existing sheet and gully erosion should be left to rehabilitate without management interventions. This does not rule out the obligation on each landowner and operator to take the necessary steps to prevent further erosion where manmade infrastructure such as, fences and roads are causing erosion.

Poverty, Unemployment and Crime

The population density in the region is low with higher levels of employment and literacy than the average in South Africa but still there is a high percentage of unemployment in the area. As a developing tourist region there are so many job creation opportunities



Solution:

- Poverty and unemployment:

The influx of capital for eco-tourism will aid the declining agricultural industry and improve the economy in the area. This development will improve employment opportunities.

There is an additional way of improving the local economy and that would be to empower the local black worker to assist in achieving economic growth. Note the following two suggestions:

- Promote local entrepreneurial talent

There is a limited culture of self-employment in the Vredefort Dome. Local workers need to be encouraged that with coaching and guidance they are capable of providing some useful service and businesses. In addition, these entrepreneurs create jobs – a strong motivation for this suggestion.

A few examples follow:

- A pre-school business: managed by a local mother for other mothers of young children. As long as the jobs are available all these extra people would be gainfully employed.

- A technical services business: considering the current daily business operations that require technical services such as telephones, televisions, computers or fax machines, this could possibly be an opportunity for one of the local residents.
- A security services business: a local group of male workers could begin a security business that spans a certain area and watches over landowner's properties for protection.
- A baby-sitting business: A local black woman (or a group of women) could improve her training and provide this type of service to all mothers in the area, including the tourists.
- A clinic service: a local woman trained- as a nursing sister to deal with sudden illness, monthly medication requirements, contraception requirements and any other out of hospital circumstances in need of attention- would be a great asset to the area.
- By establishing a CULTURAL VILLAGE where different cultures can display their manner of living, cultural dances, crafts, etc. Jobs will be created, because the village will have to be built. Then the builders can use the knowledge they gained and start their own businesses. Secondly jobs will be created for people who want to work in the village.
- Unemployed people can be involved in the building of infrastructure ex. Roads- but they have to be educated on building a better infrastructure. With the knowledge they gained, they could now become building instructors.
- Get trained as field guides and nature conservators.
- Run the local Information Office.

Home industry development:

The local landowners could create different home industry opportunities for the locals such as basket weaving, woodwork, beadwork, baking, clothing and many more. This would empower them to use their own initiative and perhaps secure a better future for themselves.

What does the future hold?

Communication channels (television, radio, employer/employee relationships) have made rural black workers aware of the potential they have to advance in the world. The younger generation are more inclined towards advancing themselves and their job opportunities, but the older members of the community seem content with the progress they have

already made and despite the evolving opportunities are more concerned about their everyday lives rather than their future lives.

Crime:

According to Mr. van der Merwe and the Parys Police station, there is a low percentage of crime in the Dome. This could change if unemployment is not addressed and the local community is not educated on the economical benefits from tourism, instead of crime.

Solution:

Crime: Someone could be trained to regulate the entrance of the Dome. People could be trained as neighbourhood watchers and patrol the area.

Infrastructure:

Infrastructure in the Dome is a smaller problem. The area is clearly demarcated by a peripheral provincial road network and it can easily be reached by road. There are no train lines, with the nearest railway station and clinics in Parys and Potchefstroom. There already exists a tourism infrastructure in the Dome. There are also numerous forms of accommodation with electricity available. Tourism infrastructure is unfortunately largely below industry standard, especially where land owners without knowledge converted from agriculture to tourism.



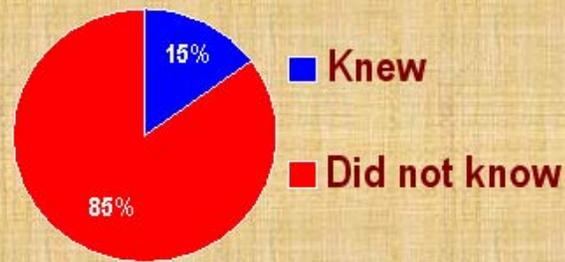
Solution:

Infrastructure: A more functional and improved infrastructure has to be built. Unemployed people can be trained to build new roads, the material could be provided by the government.

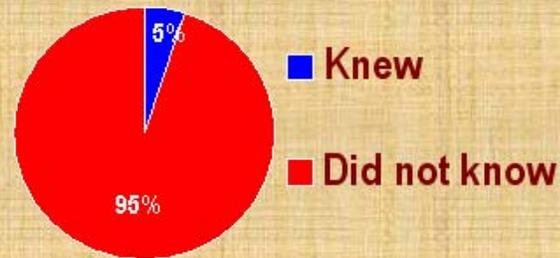
Lack of training and education: When visiting the Vredefort Dome we did a survey under the people that we saw in the area. These are some of the questions that we asked them:

- Do you know where the Vredefort Dome is? (Although working and living in the Dome only a small percentage knew that the area is called the Vredefort Dome.)

Knowledge of the Dome and the meteorite that struck it.



Knowledge of the process of being declared as a World Heritage Site



- Do you know that the area in which you are staying was struck by a big meteorite +/- 200million years ago?
- Do you know that the Vredefort Dome is in the process of being declared as a Heritage Site?
(A small percentage said yes and knew what a World Heritage area is)

Needless to say, education and training about the importance of the Vredefort Dome as a tourist destination and conservation area, are lacking and need to be addressed.

Other smaller problems in the Dome:

- Noise Pollution ▪ a result of the huge amount of adrenalin rush activities in the Dome, ex. Abseiling, river rafting, etc.
- Poaching (but to a minimum extent)
- HIV and AIDS
- Litter - a very small amount

Solutions:

Noise Pollution: Although there is noise pollution in the Dome, it isn't as intense as in big cities. Signs can be put up that says: "Silence please: Animals resting", etc.

Poaching: Poaching, although to a minimum extent, can be a big problem. Some animals are already extinct, and we have to reduce the chance of the other animals becoming extinct. People should be fined for poaching, if not registered at the Professional Hunters Association of South Africa

(PHASA).

HIV and AIDS: By running an HIV and AIDS Awareness Campaign, people could be informed about the risks of HIV and AIDS, and how to prevent it from spreading further.

Litter: Run a "Keep our Heritage Site clean " campaign. Educate scholars on what negative effect litter has on the environment.

Stakeholders in the Vredefort Dome

Sustainable and responsible tourism is not possible without participation of all the different stakeholders in the Vredefort Dome.

- National and provincial stakeholders – The key role player in this area is the Government. The North West Parks and Tourism Board (as well as Free State Tourism) in conjunction with the Department of Environmental Affairs and Tourism, has closely worked together in providing to protect the area.
- Currently, the regulations promulgated on 5 September 1997 under section 21 of the Environment Conservation Act, 1989 (Act No. 73 of 1989) ensure the Environmental Impact Assessment process is followed for any proposed development that may have a negative effect on the environment. Also applicable is the National Environment Management Act, 1998 (Act No. 107 of 1998). A permit (authorization) for development must be obtained from this Department, driven by an independent consultant. To avoid being exploited by consultants, more information can be obtained from this Department.

The North West Parks and Tourism Board have funded several projects in the Dome. Contour Project Managers did the Vredefort Dome Conservancy Strategic Development and Management Plan, February 2002. In this document a vision and strategies were laid down in order to meet the challenge to sustain the Vredefort Dome, and to develop the area, as well as tourism to the area to ensure that future generations and we enjoy this unique phenomenon. Considering the importance of the Vredefort Dome Conservancy as a protected area and the expected World Heritage Site listing, it can be expected that the Government will

continue to support implementation of the strategic and envisaged Management Plan. Various types of government assistance could be available, varying from planning and marketing to poverty alleviation, extension services, training and development.

- Landowners: A strong conservation and tourism culture exists amongst a number of landowners and the Bergland Conservancy has been successfully formed on the North West side of the Dome. Most landowners are positive about the tourism and World Heritage potential in the Dome, whilst a few remaining landowners are ignorant, outright negative or just not interested. Agriculture is fading away and on July 2001 a Vredefort Dome forum representative committee was elected. Currently no management capacity exists, but this could soon change.
- Rural community: The people on the ground know best what is needed in their communities and by whom it could be done. Most of the land is privately owned, but the community is workers, occupants or family of workers in the area. The rural community must also be involved in decision making and the ideal is to distribute some land to the local community for entrepreneurial activities and tourism development e.g. A Cultural Village displaying a combination of Tswanas, Griekwa's and Sotho's, etc. cultures that can be found in the Vredefort Dome. In this way they can address poverty and unemployment in the area e.g. sell crafts, show traditional dances etc. Community empowerment and participation is important for socio-economic development in the area.
- Tour operators: Tour operators also play a major role in the sustainable and responsible way tourism is developed. They must understand the uniqueness of the area, promote and optimally interpret the area's geology, bio-diversity, landscapes and cultural heritage for a unique and special tourist experience. The key to the success of the Vredefort Dome is an information center and this should be developed, but it must be monitored to protect this unique area from over exploitation.
- Tourists are the last but also very important role players in this area, because they spend money and this creates jobs – directly or indirectly. Tourists must be informed of the delicate bio-diversity, cultural diversity and heritage as well as the important role they play in the conservation of this area.

Conclusion

Is sustainable tourism possible in the Vredefort Dome? Only if all Stakeholders and South Africans work together to conserve all that is unique and precious to the Vredefort Dome for future generations. The myriad of geological stones and rock formations that is unique in the world to the rich bio-diversity of its sensitive ecosystems, as well as the full spectrum of its paleo-archeological heritage. Local government officials, property owners, conservationists, experts on geology, ecology, and archeology as well as other groups must participate to sustain as well as responsibility develops this unique area.

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