

## **CHAPTER 6: CONCLUSION AND RECOMMENDATIONS**

The Waterberg Biosphere Reserve complies with the criteria set out in the Statutory Framework for Biosphere Reserves and, therefore, received international recognition from UNESCO in 2001. After re-applying the criteria and adding new information obtained during the study period, the study concludes that the Waterberg Biosphere Reserve has unique conservation features with a rural community component that enhances the tourism development objectives of the biosphere reserve. The biosphere reserve concept further provides a land use zonation model that integrates the conservation of the environment with the development plans of the Waterberg District area.

The Waterberg Biosphere Reserve is currently 417 406 hectares in size. It is mainly vast open spaces due to the dominant land use of conservation and wildlife related activities. Apart from the above, the study identified the following unique characteristics within the Waterberg Biosphere Reserve:

- a) The mountainous area forms a large plateau with steep escarpments to the south and east that are characterised by beautiful sandstone cliffs.
- b) The biosphere reserve area is rich in various forms of water features from which the Waterberg derived its name while the numerous wetland habitats within the area make it an important priority for wetland conservation, currently a national conservation priority.
- c) Centrally on the highest parts of the Waterberg, the most threatened veld type in the Limpopo Province, namely the North-eastern Mountain Sourveld, occurs.
- d) The diverse habitat types of the plateaus, valleys, cliffs, and slopes make the Waterberg home to a wide variety of plant and animal species. Although it is a relatively under-researched area and available data had not yet been coordinated, more and more researched is being initiated. It is believed that the study of Henning (2002) will contribute towards a more common approach in synthesising an understanding of the vegetation of the Waterberg.

- e) The history of the human occupation and land use changes in the Waterberg since the twentieth century contributes significantly to its uniqueness. The fascinating history of the Waterberg is gradually uncovered through archaeological surveys and recent discoveries of numerous rock art paintings occurring in the biosphere reserve.
- f) The Waterberg Biosphere Reserve Management Committee that was recently established serves as an important tool to improve the coordination of conservation and development planning activities. This is possible due to the partnerships created between government, private landowners, community structures, and non-governmental organizations, which are all members of the Waterberg Biosphere Reserve Management Committee.

The land use assessment conducted during the study for the zonation of the Waterberg Biosphere Reserve highlights the spatial configuration of the current land use patterns in the Waterberg. Maps were drawn up to visually illustrate these land use dynamics in the biosphere reserve and larger Waterberg area. It was established that 67% of the landowners within the buffer zone of the Waterberg Biosphere Reserve, had changed land use to game farming over a period of ten years and that 37% of the landowners had indicated that they had recently expanded their properties. Within the transitional zone of the Waterberg Biosphere Reserve, the main land use activities identified were game farming, tourism and agriculture. No major developments, such as mining, currently occur in the zoned biosphere reserve area, although they do occur on the periphery of the Waterberg Biosphere Reserve boundary.

Moreover, the Waterberg Biosphere Reserve forms a clear wilderness area in the centre of the Waterberg District while the majority of the current activities and land uses in the Waterberg Biosphere Reserve area are nature orientated. These activities include ecotourism related activities, game farming, hunting and conservation projects. Tourist facilities within the core and buffer zones focus on bush camps that are usually low impact developments.

The study further clearly identified ecotourism as the main economic activity within the core and buffer zones of the Waterberg Biosphere Reserve. The core and buffer zones of the Waterberg Biosphere Reserve represent 267 406 hectares of land with a total number of 1 443 tourist beds. This represents an average of 1 bed/185 hectares which indicates a relatively low tourist carrying capacity if one compares it with one of the more highly visited tourist operations in the buffer that caters for 1 bed/ 0.9 hectares. There are currently 1 245 people employed (within the tourism and conservation fields) in the core and buffer zones of the Waterberg Biosphere Reserve.

In addition, the study concludes that the Waterberg Biosphere Reserve provides an ideal site to develop a community ecotourism project in the form of the Moepel/Masebe core area in the Limpopo Province. Limited opportunities exist where rural communities can obtain ownership of such a large area (33 000 hectares) of land earmarked for ecotourism development. A community ecotourism project of this size, its strategic location within an existing tourism industry and its association with the Waterberg Biosphere Reserve, makes it an ideal opportunity to create sustainable economic opportunities in the poorer parts of the Waterberg Biosphere Reserve. The Moepel/Masebe community ecotourism project is furthermore a vital link for developing the region for culture tourism due to the rich cultural history of the area and numerous archaeological sites which occur in the area. The project could also assist the land reform process by giving the communities total land ownership and full partnership in the ecotourism project.

The above mentioned characteristics thus make the Waterberg Biosphere Reserve an ideal ecotourism destination according to the definition for ecotourism formulated by the United Nations Environment Programme and the International Ecotourism Society (Wood, 2002).

In comparing the characteristics of an eco-destination as defined by the UNEP (Wood, 2002) and the criteria according to the Seville Strategy to comply with in designating a biosphere reserve (UNESCO, 2002), the following comparisons between the above were summarised as follows:

- The natural features and the human dimensions of an area must be integrated.

- The protection of the unique features of an area must be evident.
- Sustainable development must be promoted.
- Logistic support is needed to enhance and promote the sense of place and quality services.
- Proper zonation plans must be in place for all types of development.
- Stakeholder involvement and community empowerment are essential.
- Long and medium action plans must be in place to be monitored and assessed regularly.

Through identifying these comparisons, it became clear that the biosphere reserve model can be used in the Waterberg as a successful tool for defining and protecting the Waterberg area as an important eco-destination.

To ensure that the Waterberg Biosphere Reserve can serve as a land use model to protect the Waterberg as a unique eco-destination for future generations, the study furthermore assessed appropriate legislation that could enforce such protection. Since without the necessary legislative tools, the future existence of a specific land use that needs to be protected, is in danger. This can especially be seen in the last years where uncontrolled and unauthorised development projects have been constructed to fulfil the economic development objectives without an approved land use development framework. Biosphere Reserves as a unique protected area category are not yet protected through legislation. However, provision has been made in the proposed National Environmental Management: Protected Area Bill (South Africa, Department of Environmental Affairs and Tourism, 2002) for declaring an area a protected environment to regulate the area as a buffer zone for a special nature reserve, national park or nature reserve in order to prevent undesirable development. This legislation will, therefore, assist in protecting the current core and buffer zone areas within a biosphere reserve.

Apart from stressing the validity of the above mentioned legislation, the study concludes that the Municipal Systems Act (South Africa, 2000) and the Land Use Management Bill (South Africa, Department of Land Affairs, 2001), would form the main legislative framework to protect the spatial land use pattern of the area, thereby

directly protecting the biosphere reserve's land use zonation pattern if included within the integrated development plan (IDP) of the Waterberg District municipality. The most important aspect of the Municipal Systems Act (South Africa, 2000) from a spatial planning point of view is the requirement that all local authorities in South Africa have to do future planning. Statutory provision is, therefore, made in the Act for the compilation of an integrated development plan since such an integrated development plan has to include a component on the compilation of a spatial development framework and land use management system for the local municipal area.

Once promulgated, the Land Use Management Bill (South Africa, Department of Land Affairs, 2001) will repeal and replace most of the planning related laws and regulations dealing with spatial planning since the main objective of the Bill was to lay down basic principles that would guide spatial planning, land use management and land development in South Africa. Another important objective is the adoption of a municipal spatial development framework and land use schemes for municipal areas to provide the necessary guidelines for decision-making by the local municipalities that are the current land use regulators.

The biosphere reserve model also serves as an ideal tool for implementing a “self regulating” mechanism as discussed in the study. This mechanism encourages landowners to participate in conservation related programmes according to certain standards that can be beneficial to them as land owners as well as to the biosphere reserve as a whole.

It is within this context that the study concludes that the future protection of the Waterberg Biosphere Reserve's zonation pattern and its natural and cultural resources will mainly depend on the regulatory authority, currently the local municipality, and a “self-regulatory” mechanism within the biosphere reserve which will encourage sound land use management practices.

With all the information assimilated, assessed and processed during the study, it is clear that this study can contribute to the spatial development framework of the Waterberg District Municipality that has not yet been finalised. It is, moreover,

undeniable that the Waterberg Biosphere Reserve as a land use model can be used as a tool to assist the Waterberg Municipality in protecting and developing its own unique eco-destination for the future.

For those striving to test and implement the biosphere reserve concept at a concrete field level, the whole process is one of continuing education, learning and patience, especially when establishing a biosphere reserve within an environment that has the following constraints:

- a) the Biosphere Reserve concept was generally unknown;
- b) two different worlds of society (which had previously hardly communicated with each other) needed to solve problems and implement projects together;
- c) local government structures had not been set up and lacked the capacity to assist in these development processes; and
- d) where appropriate legislation that should have served as important policy and guidelines pertaining to spatial land use planning, were non-existent.

Despite all these constraints, the Waterberg Biosphere Reserve had for six years survived these debilitating factors. Under the leadership of an active management committee, mainly driven by private sector and community leaders with the support of government since 1996, and the findings and recommendations of this study, the Waterberg Biosphere Reserve can undoubtedly serve as an ideal land use model for ecotourism development that can be incorporated into the IDP of the Waterberg District of the Limpopo Province.

## RECOMMENDATIONS

Within the context of this study the following immediate challenges exist in the Waterberg Biosphere Reserve:

- The Waterberg Biosphere Reserve Management Committee needs to pioneer an incentive approach for private landowners involved with conservation related programmes on their properties that is more effective and financially efficient. This will ensure an ongoing cohesive support for the biosphere reserve concept of all the relevant stakeholders in the Waterberg Biosphere Reserve.
- Clear role identification between the different stakeholders must be set, especially taking cognisance of the applicable legislation and policies on local, provincial and national level. This will ensure continued involvement of all the relevant stakeholders.
- Ensure that the land use zonation pattern of the Waterberg Biosphere Reserve be adopted as part of the District Municipality's Spatial Development Framework. Only through this action can the Waterberg Biosphere Reserve currently be protected.
- The Moepel/Masebe ecotourism project must be implemented as an economically sustainable project of which the local communities are the main beneficiaries. This will not only enhance the local community's involvement in the tourism industry but will support the land reform process in a practical way.
- Obtain financial support to ensure the long term logistic support needed to implement and coordinate all the efforts of the Waterberg Biosphere Reserve. Fulltime "champions" or leaders will ensure commitment and proper management.
- Encourage the relevant government departments to finalise the necessary legislative framework in which biosphere reserves, within a South African context, can be designated, protected and managed.