

**A STRATEGIC MANAGEMENT PLAN FOR THE
SUSTAINABLE DEVELOPMENT OF GEOTOURISM
IN SOUTH AFRICA**

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OPSOMMING IN AFRIKAANS

Suid Afrika het van die wêreld se mees verteenwoordigende en bes-bestudeerde en soms asemrowende voorbeelde van geologiese verskynsels. Hierdie voorbeelde strek oor die hele opeenvolging van die aarde se geskiedenis en ten spyte daarvan het hulle sover min erkenning gekry. Die geologiese wonders van die land was nie aan die publiek en toerisme industrie bekend gestel nie omdat die bemerking van die land tot 'n groot mate gefokus het op die "*Groot Vyf*". Bewaring is desnieteenstaande krities om hierdie geologiese skatte die potensiaal het om miljoene toeriste jaarliks plaaslik en van oorsee te trek.

Die waardering vir geologiese en mynboukundige erfenis is baie verder internasionaal ontwikkel sedert die 19^e eeu as wat die geval in Suid Afrika was. Wêreld bekende natuur en nasionale parke in die VSA sluit Yellowstone, Grand Canyon, Wind Cave en die Hawaii

Vulkaniese Park in en meeste van hulle is hoofsaaklik natuur-gebaseerde toerismebestemmings.

Geotoerisme is 'n nuwe konsep wat in Digne-les-Bains, Frankryk, sy beslag in 1991 gekry het. Dit word vir opvoedkundige, omgewings- en sosiaal-ekonomiese doeleindes gebruik om geologie aan die publiek in Europa en Sjina waar geoparke geskep is, bekend te stel. Geotoerisme bestaan uit geologie, mineralogie, palaeontologie, geoplekke, werkende en uitgewerkte myne, grotte, en versamelings van geologiese voorbeelde in museums. Party geoplekke was as Wêreld Erfenis Gebiede verklaar a.g.v. hulle universele waarde. In Suid Afrika is Wêreld Erfenis Gebiede met natuurlike eienskappe die volgende:

1. Die Groter St. Lucia Vleiland Park (iSimangaliso) (1999)
2. Kaapse Veldblomme Bewarings Gebied Areas (2004) ('n reeks plekke), en
3. Die Vredefort Koepel (2005).

Hierdie gebied is in wese ekotoerisme met 'n addisionele 'sub'-tema (mynbou en industrieel). Dit is ook in 'n sekere mate deel van ekotoerisme wat ekologies volhoubare toerisme behels met 'n ekstra fokus op natuurlike gebiede.

Om die bronne die beste te benut, is 'n studie onderneem om 'n strategiese plan vir die volhoubare ontwikkeling van geotoerisme in Suid Afrika te ontwikkel. Die studiemetode bestaan uit 'n literatuurstudie, 'n analise van geotoerisme praktyke oorsee, veldwaarnemings en besprekings met verskeie belanghebbendes in die gevallestudie gebiede, 'n evaluasie van teoretiese en en veldwaarnemings, en die voorgestelde implementering van die bevindings. Die fokus van die studie sentreer op die bestuursproses van beplanning, ontwikkeling, bestuur, bemarking en die implementering daarvan m.b.t. geotoerisme.

Vier navorsingsdoelwitte is geformuleer wat op die volgende konsentreer:

1. Die teoretiese fundamente van volhoubaarheid en hulle toepasbaarheid m.b.t. geotoerisme
2. Evaluasie van internasionale bestaande konsepte en riglyne vir geotoerisme and geobewaring
3. Evaluasie van die ontwikkeling van geotoerisme, plek en besoekersbestuur en hoe die verskillende benaderings en verskeie werktuie vir die bestuur van geotoerisme aangewend kan word, en
4. Kriteria vir die implementering van 'n strategiese bestuursplan vir geotourisme in Suid Afrika.

Die volhoubare bestuursplan van Gebhard, Meyer en Roth (2007: 1-66) is as 'n basis gebruik om 'n bestuurplan te ontwikkel. Aspekte wat geïnkorporeer is, is hoekom geotoerisme bestuursplanne behoort ontwikkel te word, die prosedures vir planontwikkeling, riglyne oor belanghebbende-betrokkenheid, hersiening en monitering, en 'n gedetailleerde patroon (voorbeeld) vir 'n geotoerisme bestuursplan in bewaringsgebiede.

Gevolgtrekkings is gemaak vanaf die literatuur en Internet-navorsing. Besoeke wat aan Europese Internasionale Konferensies, geoplekke en geoparke gedoen was, het die grondslag vir hierdie studie gelê toe 'n bestudering van bestaande geotoerisme projekte gemaak is. Vervolgens is ses gevallestudies onderneem om 'n oorsig van geotoerisme in die land te verkry. Dit is gedoen in:

1. Nasionale Kruger Wildtuin (NKP)
2. Pelgrimsrus
3. Kromdraai Besoekers Myn
4. Die Diamond industrie van Kimberley
5. Die Wieg van die (WM), en
6. Geowetenskap Museum, Pretoria.

Die geoplekkeprojek in die NKW het as 'n baie praktiese voorbeeld gedien van hoe geotoerisme in die toekoms aan te wend.

Die bydrae van die studie was:

1. Die strategiese plan wat ontwikkel is kan as 'n basis dien vir die ontwikkeling van geotoerisme in Suid Afrika
2. Die riglyne wat deur hierdie studie ontwikkel is kan as 'n handige instrument beskou word in die meting en bereiking van volhoubaarheid
3. Die resultate van die verhandeling kan entrepreneurs/ontwikkelaars help, in die vestiging van toekomstige geoplekke, geo-gebiede en geoparke
4. Die studie maak 'n aansienlike bydrae in die uitbreiding van literatuur op die gebied van geotoerisme
5. Dit was die eerste studie van hierdie soort in Suid Afrika
6. Een van die gevallestudies van die verhandeling vorm die basis vir drie aanbiedings by twee internasionale konferensies en verdere een by 'n geotoerisme werkswinkel in Suid Afrika, en
7. Een van die gevallestudies van die verhandeling vorm ook die basis van drie internasionale konferensie-aanbiedings.

Die hoofbevindings van die gevallestudies was:

1. Daar bestaan min of geen kennis van geotoerisme as 'n produk, en dit probeer om die skoonheid oor die ontstaan van die aarde se oorsprong te verklaar (Coenraads en Koivula, 2007)
2. Daar was nog 'n beleid, nog 'n strategiese geotoerisme-ontwikkelingsplan
3. Min beplanning, bestuur en bemarking was gedoen. Die Wieg van die Mens (WM) is 'n uitsondering omdat ekstensiewe navorsing sedert 1997 gedoen was voordat 'n aansoek as 'n Wêreld Erfenis Gebied (WEG) gedoen was. Huidiglik is dit 'n uitstaande besoekersbestemming
4. Baie min finansiële ondersteuning is nog van die Regering, lokale munisipaliteite, of mynbou/finansiële maatskappye ontvang
5. Te min finansiering was 'n probleem in al die gevallestudies
6. Geen geobewarings-wetgewing bestaan, en

7. Bewaring was voorsien in vier van die gevallestudies omdat hulle in beskermde gebiede was. Twee van die gevalle was gesetel in 'n gebied of gebou wat self beskerm was a.g.v. spesifieke besoekersure.

SUMMARY IN ENGLISH

South Africa has some of the world's most representative and well-studied, quite spectacular examples of geological phenomena. These examples span almost the entire range of Earth's history and yet, so far, they have received little recognition. The geological wonders of the country have not been presented to the public and the tourism industry because the marketing of the country is, to a great extent, focussed on wild life's "*Big Five*". Conservation is nevertheless critical to protect these geological treasures that have the potential to draw millions of tourists annually, from home and abroad.

Internationally, the appreciation for geological and mining heritage has advanced much further since the 19th century than it has in South Africa. World famous nature, and National, Parks in the USA include Yellowstone, the Grand Canyon, Wind Cave and the Hawaii Volcanic Park and these are entirely nature-based tourism destinations.

Geotourism, a new concept coined in Digne-les-Bains, France, in 1991 is used for educational, environmental and social-economic purposes to make geology more accessible to the public in Europe and in China where geoparks have been created. Geotourism consists of geology, mineralogy, palaeontology, geosites, operating and defunct mines, caves, and collections of geological specimens in museums. Some geosites have been declared World Heritage Sites because of their universal value. In South Africa World Heritage Sites with natural properties that have been declared are:

1. The Greater St. Lucia Wetland Park (iSimangaliso) (1999)
2. Cape Floral Protected Region Areas (2004) (a serial site)
3. The Vredefort Dome (2005).

This area is in essence ecotourism with an additional 'sub'-theme (mining and industrial). It is to a certain extent part ecotourism which is ecologically sustainable tourism that has an added focus on natural areas.

To seek the best use of these resources, a study was undertaken to develop a strategic management plan for the sustainable development of geotourism in South Africa. The study was necessary to plan for the sustainable development of geotourism in South Africa. The method of research consisted of a literature study, an analysis of geotourism practices overseas, field visits and discussions with various stakeholders in the case study areas, an evaluation of theoretical and field observations, and the proposed implementation of the findings. The focus of the study centred on the management process of planning, development, management, marketing and the implementation thereof, as far as geotourism was concerned. Four research objectives were formulated focussed on: 1) The theoretical foundations of sustainability and their applicability to geotourism, 2) Evaluation of

international concepts and guidelines for geotourism and geoconservation, 3) Evaluation of the development of geotourism, site and visitor management and how the various approaches and tools for the management of geotourism could be applied, and 4) Criteria for the implementation of a strategic management plan for geotourism in South Africa. The sustainable tourism management plan of Gebhard, Meyer and Roth (2007(b):1-66) was used as a basis to develop a geotourism management plan. Aspects that were considered in the formulation of the strategic plan included why geotourism management plans should be developed, the procedure for plan development, guidance on stakeholder involvement, review and monitoring, and a detailed template for the compilation of a geotourism management plan in protected areas.

Based on the literature and Internet research, conclusions were drawn. Visits to European International conferences, geosites and geoparks visited laid the foundation for this study when an examination of existing geotourism projects was made. Subsequently, six case studies were undertaken to get an overview of current geotourism practise in the country.

The studies were completed at:

1. Kruger National Park (KNP)
2. Pilgrim's Rest
3. Kromdraai Visitor Mine
4. The diamond industry of Kimberley
5. The Cradle of Humankind (COH), and
6. Geoscience Museum, Pretoria.

The geosites project in the KNP served as a very practical example of how geotourism could be applied in the future.

The contributions made by this study were:

1. The strategic plan that was developed could serve as basis for development of geotourism in South Africa
2. The guidelines developed by this research could be considered a useful tool in measuring and achieving sustainability
3. The results of the thesis could assist entrepreneurs/developers in the establishment of future geosites, geo-areas and geoparks
4. The study made a significant contribution in the expansion of literature in the area of geotourism
5. This was the first study of this kind in South Africa
6. One of the case studies of the thesis formed the base for three presentations at two international conferences and for a further one at a geotourism workshop in South Africa, and
7. One of the case studies of the thesis also formed the basis of three international conference papers.

The main findings from the case studies were:

1. There exists little or no knowledge of geotourism as a product, and it seeks to explain

- the beauty of the origins of the Earth (Coenraads and Koivula, 2007)
2. There was neither a policy nor strategic geotourism development plan
 3. Little planning, management and marketing have been done. The Cradle of Humankind (COH) is an exception as extensive research was done from 1997 before the application for a World Heritage Site was submitted. Currently, it is an excellent visitor destination
 4. Very little financial support has been received either from the Government, local municipalities, or mining/financial companies
 5. Under-funding was a problem for all the case studies
 6. No geoconservation legislation exists, and
 7. Protection was provided to four of the case studies because they were located in protected areas. Two of the cases were located in an area or building that themselves were protected because of specific visiting hours.

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ACRONYMS

4Cs	Cut, carat, colour and clarity
ACIUCN	Australian Committee for the International Union for the Conservation of Nature
AGRED	African Gamebird Research, Education and Development Trust
ATM	Electronic cash machine
BR	Biosphere reserves
CCMST	Concentric Circles Model of Sustainable Tourism
CGS	Council for Geoscience
COH	Cradle of Humankind
CVA	Conjoint Value Analysis
DAC	Department of Arts and Culture
DACEL	Defence Academies & Colleges International e-Learning Conference
DBR	Deutsches Bergbau-Museum Bochum
DCFN	Diamond Coast – Forever Namaqualand
DCSR	Department of Culture, Sport and Recreation
DEAT	Department of Environmental Affairs and Tourism
DME	Department of Mineral and Energy Affairs
DMO	Destination Management Organisation

DST Department of Science and Technology
 EGN..... European Geoparks Network
 EMS..... Environmental Management System
 ESD Ecologically Sustainable Development
 FM & E..... Festivals, meetings and events
 FOSAGEMS Federation of Southern African Gem and Mineralogical Societies
 GGN Global Geoparks Network (World Geoparks Network)
 GIG..... Geotourism Interest Group
 GIG..... Geotourism Interest Group
 GIS Geographical Information System
 GLTP Great Limpopo Transfrontier Park
 GM Geoscience Museum
 GSSA..... Geological Society of South Africa
 IC..... Interpretation Centre
 IE..... Intergenerational equity
 IECMP..... Integrated Environmental Conservation Management Plan
 IEM Integrated environmental management
 IGU..... International Geographical Union
 IN Interpretative Network
 INMP Interpretation Network Master Plan
 ITE International Tourism Exchange
 IUCN World Conservation Union
 IUGS International Union of Geological Sciences
 KMDL Kimberley Microdiamond Laboratory
 KNP Kruger National Park
 LA 21..... Local Agenda 21
 M&E..... Monitoring and evaluation
 MAB..... Man and the Biosphere
 MAL..... Maropeng a' Afrika Leisure (Pty) Ltd
 NFI Northern Flagship Institution
 NGO Non Governmental Organisation
 NGT..... National Geographic Traveller
 NPB National Parks Board
 NRF National Research Foundation
 NSSD..... National Strategy for Sustainable Development
 PPIs Products, projects and initiatives
 PPP..... Public-private partnership
 RBCMA..... Rio Bravo Conservation and Management Area
 REI FUND..... GSSA Research, Education and Investment fund
 SAA South African Airways
 SAHRA South African Heritage Resources Agency
 SAMA South African Museums Association
 SANParks South African National Parks

SIN	The Scottish Interpretation Network
SMME	Small, medium and micro-sized enterprises
STD	Sustainable tourism development
STO	Sustainable-based Tourism Organisation
TBL	Triple bottom line
TGME.....	Transvaal Gold Mining Estates
TIA	Travel Industry Association of America
TNC.....	The Nature Conservancy
TPA	Transvaal Provincial Administration
UNESCO	United Nations Educational, Scientific, and Cultural Organisation
UK.....	United Kingdom
USA.....	United States of America
VIPs.....	Visitor Information Points
WEG.....	Wêreld Erfenis Gebied
WM	Wieg van die Mens
WHL.....	World Heritage List
WHS	World Heritage Sites
WITS	University of the Witwatersrand
WTO.....	World Travel Organisation
WTTC.....	World Travel and Tourism Council