

SWAZILAND BIODIVERSITY STRATEGY AND ACTION PLAN: SUMMARY OF THE STATUS AND PROGRESS AS AT DECEMBER, 1997. BY DR. BONGA S. NKOSI, PROJECT CO-ORDINATOR.

**PROGRESS REPORT ON THE SWAZILAND BIODIVERSITY
STRATEGY AND ACTION PLAN: SUMMARY OF THE STATUS AND
PROGRESS AS AT DECEMBER, 1997.**

BY

DR. BONGA S. NKOSI
PROJECT CO-ORDINATOR / LEAD CONSULTANT

DECEMBER, 1997.

PROJECT: SWA/97/G31

**SWAZILAND ENVIRONMENT AUTHORITY (SEA),
MINISTRY OF TOURISM, ENVIRONMENT AND COMMUNICATIONS,
P.O. BOX 2652, MBABANE, SWAZILAND**
TEL: 00268 - 46420/1/2/3 Ext. 140 & Director's Office - 00268 - 41719
FAX: 00268 - 46438/ 42436

1. Executive Summary.

The important observations on the national efforts and concerns on biodiversity include the fact that Swaziland ratified the Convention on Biodiversity in 1994. The Government of Swaziland, as party to the Convention on Biodiversity, formally requested assistance from GEF for the formulation of a National Biodiversity Strategy and Action Plan (BSAP) to be integrated with and complement the SEAP and for the preparation of the first country report to the Biodiversity Conference of Parties (COP).

The BSAP project would help SEA, relevant line ministries, NGOs, local communities and research institutions to provide information for the first country report to the COP. The BSAP will determine the current status of pressures on, options and priority actions to ensure conservation and sustainable use of the country's biodiversity. The enabling activity will be conducted to allow the BSAP to complement and to be integrated within existing frameworks, namely the SEAP, and the Memorandum of Understanding on the implementation of the Convention to Combat Desertification, and the National Development Strategy. Because of the extreme pressures on the land, the biodiversity enabling activity will be used as an opportunity to reinforce awareness of the importance of policy reforms and associated poverty alleviation programmes as a complement of biodiversity conservation and sustainable activities.

The Government of Swaziland fully appreciates the Convention on Biological Diversity (CBD); the Kingdom of Swaziland, as Party to the Convention, recognises the following major principles:-

Biodiversity has intrinsic value and is a common concern of humanity.

Governments have sovereignty over their biodiversity and the sustainable use of their biological resources.

States are responsible for conserving their biodiversity and using their biological resources in a sustainable manner.

Causes of significant reductions of biodiversity should be attacked at their sources.

The fundamental requirements for the conservation of biodiversity is the *in situ* conservation of natural habitats and the maintenance of viable populations of species in their natural surroundings as well as *ex situ* measures, preferably in the country of origin.

Many indigenous and local communities with traditional life-styles have a close and traditional dependence on biological resources and need to share equitably in the benefits arising from biodiversity.

International co-operation is an important part of implementing the Conservation of Biodiversity.

2. Introduction.

As a Contracting Party to the Convention on Biological Diversity (CBD), the Kingdom of Swaziland is fully committed to the provisions of the Convention. Swaziland signed the Convention on June 12, 1992 and ratified it on November 9, 1994. The major measures to which Swaziland as a Contracting Party is committed include the following:-

To develop national biodiversity strategies, plans and programmes.

To identify and monitor important components of biodiversity.

To establish systems of protected areas, manage biological resources, rehabilitate degraded ecosystems, control alien species, and protect threatened species.

To implement measures for sustainable use, including use of economic and social incentives.

To establish programmes for training, education and research, and promote access to relevant technology.

To facilitate access to genetic resources, on mutually agreed terms and under prior informed consent of the party providing such resources.

To promote technical and scientific co-operation, including exchange of information relating to biodiversity.

As a developing country, Swaziland can benefit tremendously from the provision of funds to help implement these measures. The Biodiversity Strategy and action Plan (BSAP) is a valuable enabling activity in this regard.

The intrinsic nature of biological diversity and of the ecological, genetic, social, economic, scientific, educational, cultural, recreational and aesthetic values of biological diversity and its components will continue to be brought to the fore-ground by and through the BSAP Project. It is helping to build institutional capacities to provide the basic understanding upon which to plan and implement appropriate measures. A tabulated summary of Project activities, both planned and achieved, is presented in Annex 1.

3. Back-ground.

Swaziland has a rich natural resources base, favourable climate, and a culture which has traditionally promoted living in harmony with its environment. During the long reign of King Sobhuza II (1921-1982), a number of significant environment protection measures were taken, e.g. Orders in Councils in the 1950s to establish soil-erosion control measures and the first survey of natural resources in 1967 (FAO,1967; GOS,1997), the establishment of Hlane Game Reserve (1953), and the establishment of the Swaziland National Trust Commission (SNTC), a parastatal body charged with the conservation of the natural and cultural heritage in the Kingdom. Since then, Swaziland has actively participated in global forums, including

the Earth Summit in Rio in 1992, and established its own Swaziland Environment Authority [SEA] (1992), subsuming SNTC, with the mandate, *inter alia*, to promote sound biodiversity management in the Kingdom. Nevertheless, rapid population growth (3.4%), industrialisation, urbanisation, increasing agricultural demands, and a declining economy are among factors which are fast degrading the natural resource base and this, in turn, is posing a threat to biodiversity and its sustainable utilisation.

Strategic Planning for conservation began in Swaziland in the aftermath of the UNCED 1992 where the Convention on Biological Diversity was presented (c.f. UNEP, 1994).

The Conservation measures have included:

1. *In situ*, the establishment of about 4% of the country into protected areas and the promulgation of legislative instruments on flora and fauna protection, including fish protection;
2. *Ex-situ*, the creation of a National Herbarium (NH) and a National Plant Genetic Resource Centre (NPGRC) both at the Malkerns Research Station, Ministry of Agriculture and Cooperatives.

4. The Goals and Main Objectives of the Biodiversity Strategy and Action Plan (BSAP) Project.

The activities of the BSAP Project began in June, 1997 and are proceeding for 13 months ending in July, 1998 (See Annex 1 & Annex 2). The tasks include the following:

(1) Establishment of a Steering Committee, Planning Team and Appointment of Consultants; (2) Preparation of Inventories to obtain baseline information; (3) Consultative Workshops; (4) Sensitization and Training; and (5) Preparation of an Interim Report. The Project will follow recommended methodology (Miller & Lanau, 1995). Some guidance and lessons are drawn from the Swaziland Environment Action Plan [SEAP] (GOS, 1997) Masson and others, 1996).

The objectives are as follows:

- i. To reinforce awareness of the importance of policy reform with particular reference to biological diversity and conservation.
- ii. To prepare the ground and identify needs for activities to be undertaken by a proposed full Global Environment Facility (GEF) biodiversity conservation project.
- iii. To draw upon local perceptions about environment management and alternatives to resource based livelihoods.
- iv. To integrate these local perceptions with relevant international conventions and undertakings.
- v. To stimulate and maintain involvement in planning and participatory methods of conservation both *in situ* and *ex situ*.
- vi. To help SEA, relevant Government ministries, NGO's, local communities and research institutions to formulate:-
 - the National Biodiversity Strategy and Action Plan (BSAP) and
 - the first country report to the Conference of Parties of the Convention on Biological Diversity

- vii. To determine the current status of pressures on, options and priority actions to ensure conservation and sustainable use of the biodiversity of Swaziland.

5. Strategy and Action.

Biodiversity conservation is impossible in the absence of accurate and comprehensive information on biodiversity, and related data on the socio-economic, political, financial and cultural position in any country. Without proper curation and analysis of these data in a modern database and the ability to add, or accrue further information using IT capture techniques, neither policy options nor management scenarios can be properly developed. By determining the current status of pressures on biodiversity and management options, preliminary priority actions can be identified to ensure both its conservation, sustainable use and benefit-sharing with the people of Swaziland and the Nation.

- ii. Some progress has been made during this Project so far in reinforcing the need for policy reform. Since this would be a vital part of any follow-on project, the proposal from BSAP/SEA would have to indicate, or provide sign posts for, policy direction supplied by the Consultants. Although a multilateral-funded project (GEF, EU, etc.) would have a pre-feasibility and feasibility mission before the main project such ground work is pivotal to obtaining any grant.
- iii. A combination of the Swaziland Environment Action Plan (SEAP) [GOS, 1997 Vol. 1 & Vol. 2] and this Project have already laid the ground and identified the principal needs for Swaziland. Current observations {Kunene and Nkosi (1997), Monadjem and Nkosi (1997), Nkosi and Vilakati (1997) and Swingland and Nkosi (1997)} account for the Strategy actions noted in Annex 2.
- iv. More work needs to be done in regional consultation in the field and this was programmed for December, 1997 and January, 1998. Of the four regions, one Regional Consultation has been held (Lubombo - December 9, 1997; cf Annex 1.). The other three (3) should take place in January, 1998.
- v. From the Swaziland Surveys of Information, the estimated numbers of the faunal species found in Swaziland are as follows:- Vertebrates - 821 species; Mammals - 119 species; Birds - 490 species; Reptiles - 111 species; Amphibians - 44 species; Fishes - 57 species; Sub-Total - 1642 species. The survey of information on floral species is still on-going.
- vi. Little progress has been made in participatory conservation. The National Consultants will have to report and provide a strategy or means of stimulating and establishing such activity.
- vii. The Training Exercise was held from the 8 th September, 1997 to the 10 th September, 1997; it provided an appraisal of the current pressures on biodiversity, and the policy, management and data analysis options which the country might employ.

Future progress and targets

Swaziland's future success in conservation depends on accurate and comprehensive

information about its biodiversity and the way in which it can benefit the people sustainably. This database does not exist and no comprehensive data giving an accurate basis for management has yet been compiled. As a result both policy and management options remain as future targets.

The steps necessary to produce a useful appraisal of the biodiversity situation in the country for sustainable management (c.f.Swingland & Nkosi, 1997) must be to :

- ii. Ascertain what species exist and where;
- iii. Assess the abundance or status of those populations;
- iv. Capture other published biodiversity data, IT-based information, and all pertinent information affecting conservation about human activity and land use available from many sources;
- v. Map those data, locations and statuses into a computer database;
- vi. Analyse those data and produce a digest with policy and management options.

The project lacks the necessary access to appropriate published and digital information about Swaziland's biodiversity available internationally; the absence of email/Internet connections further compounds the difficulties. The absence of an adequate conventional library with a comprehensive collection of research and consultancy reports, and other work on biodiversity in Swaziland is also a considerable handicap. These difficulties have held back the progress that might have been made. Immediate connection to email/Internet is recommended and training in capturing data is needed urgently. An additional external phone line from the BSAP/Ministry must be provided for data transfer.

There is a need to clarify management options for biodiversity conservation and discern feasible policy scenarios. This cannot be done until more data is available. Once further consultancy assignments have reported, and the data has been duly processed, the Project Co-ordinator, the International Consultant and other colleagues can prepare this analysis and draft a proposal for multilateral funding.

6. Partners / Stakeholders on the Biodiversity Strategy and Action Plan (BSAP).

The First National Workshop (held on the 19 th August, 1997) was designed to familiarise the wider community with the work of the BSAP (Nkosi, 1997). Scientists, international and national consultants, NGOs, regional representatives (tinkhundla), and chiefs were present. The involvement and conversations were lively and it was clear that participants achieved at least four results, namely:

- ii) an awareness of the project,
- iii) establishment of connections,
- iv) an appraisal and sense of the direction of future work, and
- v) an appreciation of how much needs to be done by Swaziland to equal other nations in their training, information systems, biodiversity conservation and management status.

The Stakeholders / Partners include the various National Government Sectors and Departments {Ministry of Economic Planning (MEP); Ministry of Tourism, Environment and Communications (MTEC); Ministry of Agriculture and Co-operatives (MOAC); Ministry of Natural Resources and Energy (MNRE); Ministry of Education (MOE); Deputy Prime Minister's Office (Regional Administration); Prime Minister's Office;Parliament etc}, Academic Institutions {University of Swaziland (UNISWA); Teacher Training Colleges; Swaziland

College of Technology (SCOT); Health education Colleges}, the National Trust Commission (SNTC), Non-Governmental Organisations, Business Enterprises, Owners of Private Nature Reserves, the Donor Community {such as the UN system (UNDP; FAO) and the European Union}. Apart from involvement in national fora, most of the Stakeholders / Partners are represented in the Steering Committee and the Planning Committee.

The current project (BSAP) can act as a pre-cursor and preparation project for a full integrated conservation management plan (a future National Biodiversity Conservation and Sustainable Utilisation Plan) for Swaziland which must be instituted.

No published lists or reports agree and there is a lack of accuracy. The BSAP data reports by Monadjem & Nkosi (1997) on the fauna and Kunene & Nkosi (1997) on the flora contain information which should be input into a Biodiversity Information Management System (BIMS) database. Further, verified data should be sought and included. There are over three hundred (300) referenced publications on Swaziland on international bibliographic databases but these are not all accessible to SEA and the BSAP project.

7. Action.

The main target for BSAP is to develop a well-drafted and well-sourced proposal giving evidence of both what has been accomplished and what is absent to insure a comprehensive future conservation programme beyond the end of the current UNDP/GOS project (BSAP) which concludes in July 1998. Such a proposal must possess comprehensive and accurate information (all that is available) and provide sufficient analytical clarity to provide a future basis through a larger follow-on project to enable both definite policy indications and practical management options to evolve. It must also address institutional, structural, human capacity, technical needs, socioeconomic, legal and administrative direction (See Annex 2). Ultimately the goal for Swaziland which accords with international norms, international conventions, and which is consonant with sustainable conservation and utilisation, must be a participatory community-based integrated biodiversity conservation programme.

The recommendations and needs identified (Swingland & Nkosi, 1997; Nkosi, 1997) include:-

- . *a facility to capture data using IT*
- . *a national repository and computer database of biodiversity conservation information*
- . *data on socioeconomics, human geography, built aspects, resource distribution, in effect all relevant data pertinent to sustainable development*
- . *refined management scenarios based on practical but evolutionary progress*
- . *a biodiversity conservation co-ordinating policy including trans-national initiatives*
- . *a legal and institutional appraisal of what is required to facilitate policy*
- . *a national plan for the commercialisation of biodiversity assets through community-driven participatory programmes*
- . *a national training programme in data management and analysis, hotel management, eco-tourism management, promotion and development*
- . *and finally implementation of a full National Biodiversity Conservation and Sustainable Utilisation Plan.*

8. Conclusion.

The Aspects relating to the **Schedule** for implementation, the **Budget** for the Plan of action, **Monitoring and Evaluation** measures to be used for tracking the results of the Action Plan, and the **Sharing of National Experience** in the implementation of Article 6 cannot be dealt with in this interim report.

Swaziland has enormous potential for benefitting from its biodiversity. The current situation in international conservation interest is ripe for the nation to capitalise on this potential for the benefit of all for years to come. If a full project is implemented {at least SIX (6) YEARS duration} following the current preparatory BSAP, Swaziland will be enriched immensely.

9. REFERENCES

1. Food and Agriculture Organisation (FAO) (1967) Survey of Nationally Protected Areas - Worthy Areas.
2. Government of Swaziland [GOS] (1997) Swaziland Environment Action Plan Volume 1 (based on work by I. Allen and others) Government of Swaziland / United Nations Development Programme. (Report.) Swaziland Environment Authority, Mbabane.
3. Government of Swaziland [GOS] (1997) Swaziland Environment Action Plan Volume 2 (based on work by I. Allen and Others). Government of Swaziland/ United Nations Development Programme. (Report). Swaziland Environment Authority, Mbabane.
4. Kunene I.S. and Nkosi B.S. (1997) A Survey of Information on the Botanical Biodiversity in Swaziland. Government of Swaziland/ United Nations Development Programme. (Report). Swaziland Environment Authority, Mbabane.
5. Masson P. and Others (1996) Swaziland Environment Action Plan Biodiversity, draft. Government of Swaziland/ United Nations Development Programme. (Report). Swaziland Environment Authority, Mbabane.
6. Miller K. R. and Lanau S.M. (1995) National Biodiversity Planning Guidelines Based on Early Experiences Around the World. WRI/UNEP/IUCN. Washington/Nairobi/Gland 162pp.
7. Monadjem, A. and Nkosi, B. S. (1997) A Survey of Information on the Zoological Biodiversity of Swaziland. Government of Swaziland/ United Nations Development Programme (Report). Swaziland Environment authority, Mbabane.
8. Nkosi, B.S. (1997) Proceedings of the First National Workshop on Biodiversity Strategy and Action Plan: Swaziland (19 August, 1997). GOS/UNDP Report. Swaziland Environment Authority, Mbabane.
9. Nkosi, B.S. and Vilakati, J.D. (1997) Progress Report on the Swaziland Biodiversity Strategy and Action Plan. Report Presented to the Regional Expert Workshop on Biodiversity Strategies and Action Plans, 19 -21 November, 1997, Nairobi, Kenya. United Nations Office for Project Services (UNOPS).

SWAZILAND BIODIVERSITY STRATEGY AND ACTION PLAN: SUMMARY OF THE STATUS AND PROGRESS AS AT DECEMBER, 1997. BY DR. BONGA S. NKOSI, PROJECT CO-ORDINATOR.

10. Swingland, I.R. and Nkosi, B.S. (1997) Swaziland Biodiversity Strategy and Action Plan: Analysis of Options. GOS/UNDP Report. Swaziland Environment Authority, Mbabane.
11. United Nations Environment Programme [UNEP] (1994) Convention on Biological Diversity: Text and Annexes. The Interim Secretariat for the Convention on Biological Diversity, Geneva Executive Centre (November, 1994).

SWAZILAND BIODIVERSITY STRATEGY AND ACTION PLAN: SUMMARY OF THE STATUS AND PROGRESS AS AT DECEMBER, 1997. BY DR. BONGA S. NKOSI, PROJECT CO-ORDINATOR.

Annex 1. Project Status Report. UNDP-GEF

COUNTRY: SWAZILAND

NAME OF THE CBD FOCAL POINT: MR. JAMESON D. VILAKATI, EXECUTIVE DIRECTOR, SWAZILAND ENVIRONMENT AUTHORITY (SEA).

PROJECT TITLE: NATIONAL BIODIVERSITY STRATEGY AND ACTION PLAN (BSAP) AND COUNTRY REPORT TO THE CONFERENCE OF PARTIES (COP) [SWA/97/G31]

Project Status Report, Biodiversity Strategy and Action Plan (SWA/97/G31)			
Project Activity	Target Date	Date Completed	Notes
1. Project Steering Committee in Place	May/June, 1997	June, 1997	Some 30 members with relevant expertise & experience (+UNDP)
2. Project Planning Team in Place	July, 1997	July, 1997	Some 8 members from #1 above
3. Appointment of a Project Co-ordinator	June, 1997	June, 1997	Name of Project Co-ordinator: Dr. Bonga S. Nkosi.
4. National Consultants for Stock-taking Recruited	June, 1997	June, 1997	
5. Stock-taking completed	September, 1997		
6. First National Workshop	August, 1997	August 19, 1997	Place of Workshop: Manzini Region/District Participants: 92
7. Provincial Workshops (Four Regions/Districts)	December, 1997 & January, 1998		Places of Workshops 1. Lubombo(9/12/97) 2. Shiselweni 3. Manzini 4. Hhohho
8. First Draft National Strategy	May, 1998		
9. Draft Action Plan	May, 1998		

SWAZILAND BIODIVERSITY STRATEGY AND ACTION PLAN: SUMMARY OF THE STATUS AND PROGRESS AS AT DECEMBER, 1997. BY DR. BONGA S. NKOSI, PROJECT CO-ORDINATOR.

10. Second National Workshop	March, 1998		Place of Workshop Manzini Region Participants: >100
12. Adoption of BSAP by: . Government . Parliament	. August, 1998 . August, 1998		
13. Publication of BSAP & Dissemination			
14. Other Specific Activities e.g. . Training . Project connection to Internet Yes No .. ✓... (Clearing House Mechanism) . Identification of Major Biodiversity Stakeholders	. Sept., 1997 . . June, 1997		. Some identified Stakeholders noted in Annex 2.

Amount required to Connect Project to Internet: upto US \$ 14000.00 (including a computer with modem, 12 months subscription plus connection or realimage@realnet.co.sz and training)

Name of the Lead National Consultant / Project Co-ordinator:
DR. BONGA S. NKOSI

Address:
Swaziland Environment Authority, Ministry of Tourism, Environment & Communications, P.O. Box 2652, MBABANE, H100, SWAZILAND.
TEL: 00268-46420/1/2/3 Ext. 140 and Director's Office - 00268 - 41719
FAX: 00268-46438/42436.

Annex 2. Policy

De novo policy is subsequently modified from management options and these options from status information on biodiversity and use. Steps taken to analyse data will offer a number of management possibilities and this will fine tune ideal policy.

Actions towards a National Biodiversity Policy			
Actions	Priority	Timeframe	Responsibility
Carry out a broad awareness programme, including relevant indigenous knowledge systems	1	Now	SEA, NEEP, MOE, NGOs
Carry out a needs analysis for integrated protected area management, and participatory benefit-sharing	1	Short term	NGOs, SEA
Carry out pilot Natural Resources Management (NRM) activities with communities, and/or a pilot biosphere reserve	2	Short term	SNTC, Private Nature Reserves
Establish a National Biodiversity Conservation and Sustainable Utilisation Plan agreed by Government; conservation, utilisation, professional training, rural awareness, business plan, financial and management control, responsible bodies,	1	Within five years	GOS, GEF, NGOs, UNISWA, SEA
Establish annual training courses for professional staff of SEA, UNISWA, NGOs, & staff of protected areas and National Herbarium	2	Continuous	SNTC, Private Nature Reserves, MOAC, DICE
Secure government commitment and financial resources for upgrading the management of parks and reserves	1	Long term	MTEC, SEA, SNTC,
Review and update relevant legislation, e.g. SNTC Act	1	Short term	SEA
Establish a national plant programme (eradicate invasive species)	1	Short, medium and long term	MTEC, SNTC, MOAC, local authorities,
Collect, evaluate and	2	Medium and	

SWAZILAND BIODIVERSITY STRATEGY AND ACTION PLAN: SUMMARY OF THE STATUS AND PROGRESS AS AT DECEMBER, 1997. BY DR. BONGA S. NKOSI, PROJECT CO-ORDINATOR.

disseminate traditional knowledge information relevant to natural resource management		long term	SNTC
Promote research, especially in genetic resource conservation	2	Medium and long term	UNISWA
Update and maintain biodiversity inventories (e.g.. indigenous flora, indigenous fish) and documentation	2	Medium and long term	SEA, BSAP, National Herbarium MOAC (Fisheries)
Secure funds to upgrade and improve the Herbarium and other conservation agencies	3	Medium and long term	MTEC (SEA), SNTC Private nature reserves
Establish a system for formal recognition of protection-worthy areas.(IUCN 1994 Protected Areas Management, or South African system)	1	Short term	SNTC

Adapted from Swingland & Nkosi, 1997 and from the SEAP (GOS,1997 Vol. 1 & Vol. 2)

BSAP - BIODIVERSITY STRATEGY AND ACTION PLAN (PROJECT)

DICE - DURRELL INSTITUTE OF CONSERVATION ECOLOGY, UNIVERSITY OF KENT

GEF - GLOBAL ENVIRONMENT FACILITY

GOS - GOVERNMENT OF SWAZILAND

MOAC - MINISTRY OF AGRICULTURE AND CO-OPERATIVES

MOE - MINISTRY OF EDUCATION

MTEC - MINISTRY OF TOURISM, ENVIRONMENT AND COMMUNICATIONS

NEEP - NATIONAL ENVIRONMENTAL EDUCATION PROGRAMME

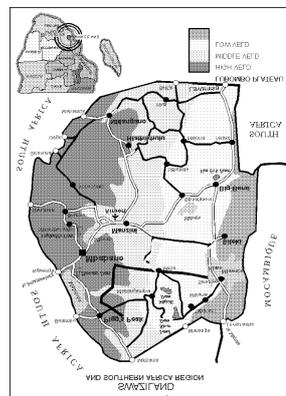
NGO - NON-GOVERNMENTAL ORGANISATION

SEA - SWAZILAND ENVIRONMENT AUTHORITY

SNTC - SWAZILAND NATIONAL TRUST COMMISSION

UNISWA - UNIVERSITY OF SWAZILAND

MAP OF



SWAZILAND