



Global Environment Facility

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December 12, 2007

Dear Council Member,

UNDP as the Implementing Agency for the project entitled: ***South Africa: National Grasslands Biodiversity Program*** has submitted the attached proposed project document for CEO endorsement prior to final approval of the project document in accordance with UNDP procedures.

The Secretariat has reviewed the project document. It is consistent with the proposal approved by Council in June 2007 and the proposed project remains consistent with the Instrument and GEF policies and procedures. The attached explanation prepared by UNDP satisfactorily details how Council's comments and those of the STAP have been addressed. I am, therefore, endorsing the project document.

We have today posted the proposed project document on the GEF website at www.TheGEF.org. If you do not have access to the Web, you may request the local field office of UNDP or the World Bank to download the document for you. Alternatively, you may request a copy of the document from the Secretariat. If you make such a request, please confirm for us your current mailing address.

Sincerely,

Monique Barbut
Chief Executive Officer and Chairperson

Attachment: Project Document

cc: Alternates, GEF Agencies, STAP, Trustee



REQUEST FOR CEO ENDORSEMENT/APPROVAL

PROJECT TYPE: FULL-SIZED PROJECT

THE GEF TRUST FUND

GEF

Submission Date: 23 October 2007

PART I: PROJECT INFORMATION

GEFSEC PROJECT ID: 2615

GEF AGENCY PROJECT ID: 2929

COUNTRY (IES): South Africa

PROJECT TITLE: National Grasslands Biodiversity Programme (NGBP)

GEF AGENCY (IES): UNDP

OTHER EXECUTING PARTNER (S): South African National Biodiversity Institute (SANBI)

GEF FOCAL AREA (S): Biodiversity

GEF-4 STRATEGIC PROGRAM (S): Project submitted under GEF-3: BD-2: Mainstreaming Biodiversity in Production Landscapes, Seascapes and Sectors

NAME OF PARENT PROGRAM/UMBRELLA PROJECT: national grasslands programme

Expected Calendar	
Milestones	Dates
Work Program (for FSP)	June 2007
GEF Agency Approval	November 2007
Implementation Start	January 2008
Mid-term Review (if planned)	July 2010
Implementation Completion	January 2013

A. PROJECT FRAMEWORK (Expand table as necessary)

Project Objective: Major production sectors are directly contributing to the achievement of biodiversity conservation priorities within the grasslands biome								
Project Components	Indicate whether Investment, TA, or STA**	Expected Outcomes	Expected Outputs	GEF Financing*		Co-financing*		Total (\$)
				(\$)	%	(\$)	%	
1. Enabling environment	TA	Enabling environment for biodiversity conservation in production landscapes is strengthened.	1.1 The enabling policy and regulatory framework is deepened 1.2 Knowledge management system for the umbrella NGBP is developed and implemented 1.3 Increased capacity of stakeholder institutions to engage effectively in mainstreaming biodiversity management into production practices	1,481,302	13%	9,633,138	87%	11,114,441
2. Agriculture	TA	Grassland biodiversity conservation objectives mainstreamed into agriculture	2.1 Improved rangeland management systems piloted that incorporate biodiversity management objectives 2.2 Biodiversity-compatible best practice management strategies developed	3,611,000	31%	8,201,136	69%	11,812,137

			and used 2.3 Conservation Stewardship Arrangements in place 2.4 Capacity building of the organised agricultural sector bodies 2.5 Biodiversity-friendly livestock/game production systems promoted through certification scheme 2.6 Land use allocation decision making processes reflect biodiversity conservation priorities					
3. Forestry	TA	The forestry sector directly contributes to biodiversity conservation objectives in the grasslands biome	3.1 Improved management of existing unplanted forestry owned land 3.2 Conservation Stewardship Arrangements operationalised 3.3 Certification Systems strengthened 3.4 Appropriate expansion of new forestry plantations in terms of location	1,140,666	11%	8,957,454	89%	10,098,120
4. Urban economy	TA	Grassland biodiversity management objectives mainstreamed into urban economy in Gauteng	4.1 Biodiversity toolkit (policy, guidelines, decision-support tools) developed for use by province and municipalities within urban areas 4.2 Strengthening Capacity through Targeted Awareness, Communication and Training 4.3 Secure Priority Areas as Biodiversity Refugia	719,678	15%	4,556,487	86%	5,276,165
5. Coal mining	TA	Biodiversity management secured in coal mining sector	5.1 A Biodiversity Offset Scheme is developed 5.2 Coal mine expansion planned using biodiversity information	518,118	22%	1,814,755	78%	2,332,873
6. Project management				829,236	17%	4,098,794	83%	4,928,030
Total Project Costs				8,300,000		37,261,764		45,561,764

* List the \$ by project components. The percentage is the share of GEF and Co-financing respectively to the total amount for the component.

** TA = Technical Assistance; STA = Scientific & technical analysis.

B. FINANCING PLAN SUMMARY FOR THE PROJECT (\$)

	<i>Project Preparation*</i>	<i>Project</i>	<i>Agency Fee</i>	<i>Total at CEO Endorsement</i>	<i>For the record: Total at PIF</i>
GEF	350,000	8,300,000	778,500	8,650,000	8,650,000
Co-financing	341,368	37,261,764		37,261,764	37,261,764
Total	691,368	45,561,764	778,500	45,911,764	45,911,764

* Please include the previously approved PDFs and PPG, if any. Indicate the amount already approved as footnote here and if the GEF

funding is from GEF-3. Provide the status of implementation and use of fund for the project preparation grant in Annex D.

C. SOURCES OF CONFIRMED CO-FINANCING, including co-financing for project preparation for both the PDFs and PPG.

(Expand the table line items as necessary)

<i>Name of co-financier (source)</i>	<i>Classification</i>	<i>Type</i>	<i>Amount (\$)</i>	<i>%*</i>
SANBI	Nat'l Gov't	Grant	1,803,532	5%
GDACE	Prov Gov't	Grant	5,453,629	15%
Greening the Nation (SANBI)	Nat'l Gov't	Grant	5,356,068	14%
Ezemvelo KZN Wildlife	Prov Gov't	Grant	868,633	2%
DWAF	Nat'l Gov't	Grant	2,113,473	6%
Department of Agriculture	Nat'l Gov't	Grant	7,947,351	21%
Working for Wetlands	Nat'l Gov't	Grant	3,801,239	10%
EWT	NGO	Grant	356,992	1%
WWF	NGO	Grant	503,704	1%
BotSoc	NGO	Grant	40,444	0.1%
Forestry SA	Private Sector	Grant	7,034,667	19%
Working for Wetlands (Coal Mining)	Private Sector	Grant	1,982,031	5%
Total Co-financing			37,261,764	100%

* Percentage of each co-financier's contribution at CEO endorsement to total co-financing.

D. GEF RESOURCES REQUESTED BY FOCAL AREA(S), AGENCY(IES) OR COUNTRY(IES)

<i>GEF Agency</i>	<i>Focal Area</i>	<i>Country Name/ Global</i>	<i>(in \$)</i>			
			<i>Project Preparation</i>	<i>Project</i>	<i>Agency Fee</i>	<i>Total</i>
(select)	(select)					
(select)	(select)					
(select)	(select)					
(select)	(select)					
(select)	(select)					
(select)	(select)					
Total GEF Resources						

* No need to provide information for this table if it is a single focal area, single country and single GEF Agency project.

E. PROJECT MANAGEMENT BUDGET/COST

<i>Cost Items</i>	<i>Total Estimated person weeks</i>	<i>GEF (\$)</i>	<i>Other sources (\$)</i>	<i>Project total (\$)</i>
<i>Local consultants*</i>	2133***	712,111	2,452,793	3,164,904
<i>International consultants*</i>	0	0	0	0
<i>Office facilities, equipment, vehicles and communications**</i>		40,000	1,306,784	1,346,784
<i>Travel**</i>		77,125	204,343	281,468
<i>Miscellaneous</i>		0	134,874	134,874
Total	2133	829, 236	4, 098, 794	4, 928, 030

* Provide detailed information regarding the consultants in Annex C.

** Provide detailed information and justification for these line items. Detailed explanations for these cost items are provided in the Total Budget and Work Plan in the Project Document.

*** Number of person weeks covered by GEF investment: 480 (ref Annex C)

F. CONSULTANTS WORKING FOR TECHNICAL ASSISTANCE COMPONENTS:

<i>Component</i>	<i>Estimated person weeks</i>	<i>GEF(\$)</i>	<i>Other sources (\$)</i>	<i>Project total (\$)</i>
<i>Local consultants*</i>	7,144**	1,925,778	6,262,967	8,188,745
<i>International consultants*</i>	0	0	0	0
Total	7,144	1,925,778	6,262,967	8,188,745

* Provide detailed information regarding the consultants in Annex C.

** Number of person weeks covered by GEF investment: 2160 (Ref Annex C)

G. DESCRIBE THE BUDGETED M&E PLAN: The M&E plan is detailed in Part VIII of the Project Document. That information is summarised in the table below:

Type of M&E activity	Responsible Parties	Budget US\$ Excluding project team time	Time frame
Inception Workshop	<ul style="list-style-type: none"> ▪ Project Coordinator ▪ UNDP CO ▪ UNDP GEF 	10,000	Within first two months of project start up
Inception Report	<ul style="list-style-type: none"> ▪ Project Team ▪ UNDP CO 	<ul style="list-style-type: none"> ▪ None 	Immediately following IW
Measurement of Means of Verification for Project Purpose Indicators	<ul style="list-style-type: none"> ▪ Project Coordinator will oversee the hiring of specific studies and institutions, and delegate responsibilities to relevant team members 	<ul style="list-style-type: none"> ▪ 40,000 ▪ To be finalized in Inception Phase and Workshop. ▪ Indicative cost ▪ 	Start, mid and end of project
Measurement of Means of Verification for Project Progress and Performance (measured on an annual basis) + workshop for dissemination	<ul style="list-style-type: none"> ▪ Oversight by Project GEF Technical Advisor and Project Coordinator ▪ Measurements by regional field officers and local IAs 	<ul style="list-style-type: none"> ▪ 115,000 ▪ To be determined as part of the Annual Work Plan's preparation. ▪ 	Annually prior to APR/PIR and to the definition of annual work plans
Conduct METT	<ul style="list-style-type: none"> ▪ The NGBP programme management and consultant 	<ul style="list-style-type: none"> ▪ 5,000 	Mid-term and end
APR and PIR	<ul style="list-style-type: none"> ▪ Project Team ▪ UNDP-CO ▪ UNDP-GEF 	<ul style="list-style-type: none"> ▪ None 	Annually
TPR and TPR report	<ul style="list-style-type: none"> ▪ Government Counterparts ▪ UNDP CO ▪ Project team ▪ UNDP-GEF Regional 	<ul style="list-style-type: none"> ▪ None 	Every year, upon receipt of APR

	Coordinating Unit		
Steering Committee Meetings	<ul style="list-style-type: none"> ▪ Project Coordinator ▪ UNDP CO 	<ul style="list-style-type: none"> ▪ None 	Following Project IW and subsequently at least once a year
Periodic status reports	<ul style="list-style-type: none"> ▪ Project team 	<ul style="list-style-type: none"> ▪ 10,000 	To be determined by Project team and UNDP CO
Technical reports	<ul style="list-style-type: none"> ▪ Project team ▪ Hired consultants as needed 	<ul style="list-style-type: none"> ▪ 15,000 	To be determined by Project Team and UNDP-CO
Mid-term External Evaluation	<ul style="list-style-type: none"> ▪ Project team ▪ UNDP- CO ▪ UNDP-GEF Regional Coordinating Unit ▪ External Consultants (i.e. evaluation team) 	<ul style="list-style-type: none"> ▪ 20,000 	At the mid-point of project implementation.
Final External Evaluation	<ul style="list-style-type: none"> ▪ Project team, ▪ UNDP-CO ▪ UNDP-GEF Regional Coordinating Unit ▪ External Consultants (i.e. evaluation team) 	<ul style="list-style-type: none"> ▪ 30,000 	At the end of project implementation
Terminal Report	<ul style="list-style-type: none"> ▪ Project team ▪ UNDP-CO ▪ External Consultant 	<ul style="list-style-type: none"> ▪ None 	At least one month before the end of the project
Lessons learned	<ul style="list-style-type: none"> ▪ Project team ▪ UNDP-GEF Regional Coordinating Unit 	<ul style="list-style-type: none"> ▪ 15,000 (average 3,000 per year) 	Yearly
Audit	<ul style="list-style-type: none"> ▪ UNDP-CO ▪ Project team 	<ul style="list-style-type: none"> ▪ 15,000 (average \$3,000 per year) 	Yearly
Visits to field sites (UNDP staff travel costs to be charged to IA fees)	<ul style="list-style-type: none"> ▪ UNDP Country Office ▪ UNDP-GEF Regional Coordinating Unit (as appropriate) ▪ Government representatives 	<ul style="list-style-type: none"> ▪ 15,000 (average one visit per year) 	Yearly
TOTAL indicative COST Excluding project team time and UNDP staff and travel expenses		<ul style="list-style-type: none"> ▪ US\$ 290,000 	

Indicative Monitoring and Evaluation Work plan and corresponding budget

PART II: PROJECT JUSTIFICATION

A. DESCRIBE THE PROJECT RATIONALE AND THE EXPECTED MEASURABLE GLOBAL ENVIRONMENTAL BENEFITS:

Project Rationale

Normative Solutions to Address Threats: Under the baseline scenario, many activities that directly and indirectly contribute to improved management of natural resources within the grasslands biome will occur, but these will not by themselves ensure that biodiversity management objectives are being attained. Production activities will continue to pose an unmitigated threat to biodiversity in production landscapes, where the bulk of the biome's biodiversity resides. To secure conservation values in the grasslands biome it will be critical to promote the concept that grasslands ecosystem services are critical to sustainable development. Another key strategy is for the conservation community to engage with the development agenda through 'mainstreaming' activities, which seek to nest conservation in development strategies for mutual benefit.

Some strategic expansions to the protected area estate are planned. The Government recognizes that grasslands are severely under-represented in the South African protected areas network. Plans are underway to create a Grasslands National Park. While this will expand the area of the protected area estate by an estimated 15,000 hectares, this investment, coupled with that dedicated to the management of existing protected areas will by

itself be insufficient to protect the biodiversity of the biome. This is because the biome is characterised by a high rate of biological turnover across its ecological landscape, meaning that many large areas will need to be protected. Furthermore, the protected area estate will not directly address the main causes of biodiversity loss emanating from the land use practices of production enterprises.

(i) **Enabling Environment:** Although the enabling environment is in place, with a supportive policy and legal framework, there is a gap between policy and implementation. Measures are needed to improve the enabling conditions needed to ensure that production sectors are accommodating biodiversity management objectives in their production practices. The normative solution entails a number of improvements in the enabling environment. A knowledge management system that will facilitate information sharing, networking and replication of good management practices will be in place, catering to the information needs of the public sector, private enterprises, and civil society. Production enterprises, led by industry champions in each sector, will be negotiating tradeoffs between production endeavors and conservation needs with informed regulatory authorities, based on sound information. Last, the capacity of regulatory institutions in the environment and production sectors to coordinate the implementation of policies, develop environment management plans, and monitor their implementation will be in place.

(ii) **Agricultural Sector:** Under the baseline, rangeland practices will be geared towards enhancing the productivity of grazing, and will not incorporate biodiversity management. In particular, burning regimes and stocking practices will adversely affect the floristic and invertebrate component of the grassland biota. Where cropping expansion occurs, it will do so regardless of biodiversity management needs. The normative solution will engineer a better alignment between production needs and conservation imperatives on agricultural lands. A range of measures will be in place, facilitating the integration of biodiversity management objectives into sector production practices. These include the application of win-win biodiversity-compatible rangeland management systems. The incentives for farmer uptake of these practices will be improved through the emergence of a certified domestic red meat market, recognising environmental good practice. The organised livestock and game production associations will be playing a pivotal role in bridging the information divide between farm enterprises and the conservation fraternity concerning the employment of biodiversity-friendly management systems. Finally, any expansion of cultivation will be occurring on fallow lands or those of low biodiversity conservation value.

(iii) **Plantation Forestry:** The organised forestry sector is environmentally aware and part of the international certification system operated by the Forest Stewardship Council (FSC). In the normative solution, companies will be managing unplanted lands to protect biodiversity, and earning recognition for good management practice. Land allocation decisions for new plantation developments will accommodate biodiversity management needs, ensuring that tradeoffs are factored into the land allocation process.

(iv) **Urbanisation:** Urban expansion in Gauteng on its present trajectory will result in unmitigated development and coupled biodiversity loss. The normative solution will see the induction of a suite of activities to address the problem. First and foremost, there will have been an attitudinal shift in the institutions responsible for regulating urban development, and amongst the developers themselves (i.e. city planners, architects and the construction industry). The management tool box will have been expanded, improving decision-making processes. While regulatory functions will be strengthened to protect critical sites for biodiversity, this will be complemented by biodiversity offset arrangements aimed at internalising the costs of land conversion in green spaces into the cost/benefit calculus for development.

(v) **Coal Mining:** Steps are being taken by the government and the coal mining industry to address the environmental impacts of coal mines. The normative solution will see biodiversity planning information used by mining companies and regulatory authorities to plan new mines. Moreover, innovative new market mechanisms, in particular offsite wetland mitigation banking, will be piloted and adapted and good practice accommodated in business practice. This will be applied in partnership with State wetland protection schemes, such as Working for Wetlands, and designed to ensure strong regulatory oversight.

Barriers to the Conservation of Biodiversity: A number of barriers are impeding efforts to implement the normative solutions. If left unattended, this will correspond in the continued mismatch between conservation objectives and production practices.

(i) **Market Failure:** Ecological goods and services supplied by grasslands tend to be public goods. Consequently, ecosystem functions are not being accounted for in land transactions and management. The perceived free value of the ecosystem leads to land use allocations that may not optimize the total economic value. The Government has identified the need for coherent policies on fiscal instruments and incentives that promote environmental management and biodiversity stewardship. A series of tax anomalies and perverse incentives hampering private investment in biodiversity management have been identified. A national framework on environmental fiscal instruments is being developed by the Treasury.

(ii) **Systemic and Institutional Capacity Weaknesses:** While a strong macro-enabling framework is in place, subsidiary regulations, plans, and management guidelines and tools have yet to be developed. The impetus for action by production sectors is being undermined, in part, because awareness amongst key decision makers of the economic value of grasslands ecosystems is limited. Furthermore, existing data, including of the ecological and economic parameters for grassland management, is not being widely shared. As a consequence, it is difficult to ascertain the acceptable level of tradeoffs needed between development objectives and practices in production sectors, and those for biodiversity conservation. These barriers are compounded by inadequacies in the systems for coordinating conservation management with the regulatory functions of public production sector institutions. Coordination and collaboration between spheres of government responsible for land use planning, decision making, and land management needs to be improved. While the Biodiversity Act gives teeth to Bioregional Plans, helping to ensure that biodiversity management is accommodated in land use planning and regulation, mechanisms to cultivate collaboration between production interests are needed to put them into action.

(iii) **Management Tools and Capacity:** There has never been a focus on accommodating biodiversity conservation objectives in veld management practices, which tend to be solely production focused. However, existing research shows that win-win options exist, that allow biodiversity conservation needs to be accommodated in grazing management systems. Current mechanisms for supplying this information to land users are inadequate, and the information that is available is too general to accommodate the heterogeneity in ecological conditions at the farm level. Gaps in know-how also affect management interventions in other sectors, including plantation forestry and coal mining. These industries manage large swathes of undeveloped grasslands, which while not necessarily threatened by direct habitat conversion by the companies themselves, are subject to other pressures which remain largely unmitigated. These include invasion by alien species, which out-compete native species, predator control programmes at landscape level, and fragmentation of small habitat plots. Tools are needed to inform enterprises of cost-effective management measures to improve stewardship of these areas, to be accompanied by due recognition through market incentives. These problems can be resolved to some extent through the production of good practice guidelines. However, there are two additional impediments to action, namely, capacity weaknesses at the enterprise level to put these guidelines into effect, and effective ways and means of disseminating information at a mass level. While the industries themselves can play a big role in addressing the gaps, particularly where organized industry associations are in place, there has been little attempt thus far to build institutional capacity and provide support to capitalize on such opportunities.

Global Benefits

Despite, and often because of their value, grasslands across the world are one of the biomes most impacted on by human activity. A number of global ecosystem/region assessments have found that grasslands are one of the greatest conservation priorities worldwide. Globally they remain one of the least conserved biomes, with just over 7% of grasslands falling into protected areas, and temperate grasslands having less than 0.69% protected. The principal global environmental benefit of the programme derives from the added security provided for grassland ecosystems and constituent flora and fauna through effective mainstreaming of grassland biodiversity conservation objectives into production sector practices. In addition, the stewardship element embedded within the mainstreaming approach will result in innovative formal protection of refugia representative of grasslands biodiversity within the agricultural, forestry and urban sectors. One important global benefit will be the protection in situ of the wild races of many hybrid flowers important to commerce. These include the arum lilies, watsonias, and gladioli.

National Benefits

Initial work carried out to attach values to various ecosystem services from the grasslands biome using existing information, estimates that the value of the flow of ecosystem services in grasslands to be in the order of R9.7billion per annum, or R29,005 per km². Beneficiaries include national, provincial and local government

agencies mandated with responsibilities for environmental management, who will benefit from enhanced collaboration, knowledge management systems, and institutional mainstreaming effectiveness. Production sectors will benefit from improved institutional capacity to address grassland biodiversity management objectives. Better biodiversity management practices linked to incentives, such as an environmentally appropriately-farmed red meat certification scheme, will enhance economic production for farmers. Formal conservation of refugia representative of grassland biodiversity arising through the stewardship approach, will result in tax benefits for private landowners. Civil society will be actively involved in demonstration interventions and benefit through capacity enhancement.

B. DESCRIBE THE CONSISTENCY OF THE PROJECT WITH NATIONAL PRIORITIES/PLANS:

The South African Government has a strong commitment to biodiversity conservation. It has signed and ratified a large number of international conventions, treaties, protocols and other agreements, including the Convention on Biological Diversity, which it became a signatory to in 1995. Since the early 1990s, South Africa's policy and legislative framework has been strongly influenced by these international agreements and the associated principles of sustainable development. A strong regulatory framework for environmental management has been established, with particularly innovative policies and legislation constructed for the protection of biodiversity in the Biodiversity Act (2005).

The grasslands biome was identified as a strategic priority for conservation actions in the GEF Medium-Term Programme Priority Framework (DEAT, 2001) and the National Spatial Biodiversity Assessment (2005), a key element of the National Biodiversity Strategy and Action Plan. Recent steps that have been, or are being, taken that resonate positively for conservation include:

- The broadening of the legal mandate of SANBI from plants to cover all biodiversity;
- Incorporation of a National Biodiversity Framework that will allow Bioregional plans to be gazetted. This is designed to engender a better integration of biodiversity management needs into the development framework at the regional and local levels;
- The new EIA regulations that provide an opportunity for the information in Bioregional Plans and the listed threatened ecosystems to be linked into the EIA process;
- The release by National Treasury of the Draft Policy Paper: A Framework for Considering Market-Based Instruments to Support Environmental Fiscal Reform in South Africa;
- The increased support by government of the core costs of bioregional programmes such as CAPE, SKEP and the NGBP;
- An increased interest in conservation stewardship, illustrated by DEAT funding a national stewardship coordinator position and the appointment of provincial stewardship coordinators.

C. DESCRIBE THE CONSISTENCY OF THE PROJECT WITH [GEF STRATEGIES](#) AND STRATEGIC PROGRAMS:

The programme is consistent with the GEF Operational Strategy and Operational Programme (OP) 4 for the 'Biodiversity' Focal Area: Mountain Ecosystems, while contributing to OP2: Freshwater Ecosystems, through the protection of important wetlands. The following key elements of the Strategy are addressed: i) Removal of the specific causes of, or threats to, biodiversity loss; ii) Incorporation of biodiversity protection into the main production sectors of the economy iii) promotion of sustainable land use practices; and iv) strengthening institutional and individual capacities for biodiversity conservation. The programme satisfies the eligibility criteria specified for GEF Strategic Priority 2 (BD2): "Mainstream biodiversity in production landscapes and sectors. The Programme adopts STAP guidance to the GEF Council (GEF/C.24/Inf.11) by: (i) Addressing barriers to the uptake of biodiversity friendly production systems in key production sectors, in particular by strengthening management capacities at the systemic and institutional levels; (ii) Strengthening the policy support framework to accommodate biodiversity management needs in production sector activities; (iii) Integrating biodiversity conservation objectives into planning systems; (iv) Establishing/ strengthening certification schemes to recognize good management practices; and (v) Demonstrating and replicating good production practices.

D. OUTLINE THE COORDINATION WITH OTHER RELATED INITIATIVES:

Linkages with UNDP Country Programme

The programme will contribute to meeting the objectives as set out in the UNDP Country Programme 2007-2010 for South Africa (CP 2007-2010), and will be implemented within the rubric of that framework. The programme falls under Objective B of the Country Programme 'Promoting Equitable Growth, Poverty Reduction and Sustainable Development'. The programme will contribute to Service Line 3.5 'Conservation and Sustainable Use of Biological Diversity', under Goal 3 'Managing Energy and Environment for Sustainable Development', of the Multi-Year Funding Framework 2004-2007 (MYFF 2004-2007). Furthermore, the programme is in line with the major development challenges identified in the United Nation's Common Country Assessment (CA) of development needs, prepared by the Government of South Africa in 2005. The CA underlines biodiversity's critical role in providing for sustainable development and poverty alleviation.

In addition, the programme is in line with other international activities and regional programmes that have a bearing on UNDP work. In particular, it is in line with the Millennium Development Goals (MDGs) adopted by South Africa, especially MDG-7 on 'Environmental Sustainability', MDG-1 on 'Poverty Alleviation' and MDG-8 'Global Partnership for Development'.

Linkages with GEF Financed Projects

The programme is highly complementary with a number of national GEF-funded biodiversity projects. The programme development team has worked in close collaboration with other project teams and relevant national and international partners to avoid any duplication and overlap between the initiatives, and to optimise synergies. Other GEF Biodiversity initiatives are all focused on conservation efforts elsewhere in South Africa, in other Major Habitat Types, address different conservation needs, and employ different strategies. None of the other GEF-sponsored projects are geared specifically towards mainstreaming conservation objectives into agriculture, forestry, urban development and coal mining sectors, as proposed under this programme. The project thus provides significant added value in terms of the contribution of the GEF to South Africa's national conservation agenda.

The NGBP will liaise closely with the "World Bank/UNDP-GEF CAPE Action for People and the Environment Project", which is a strategic intervention to secure the long-term conservation of the Cape Floristic Region. The CAPE is also designed as an umbrella programme, which includes a strategy to mainstream biodiversity in production landscapes. CAPE does not, however, specifically address mainstreaming objectives at vertical level within production sectors, focusing on mainstreaming biodiversity in cross sectoral development plans. The NGBP will also work in partnership with the "UNDP-GEF Agulhas Biodiversity Initiative" and synergies between the two initiatives shall be promoted, particularly with regard to the strengthening of institutional and policy contexts, awareness raising, facilitating payments for ecological services and the development of other financial incentives to promote conservation.

The NGBP will also collaborate with the "UNDP-GEF supported Conservation and Sustainable Use of Biodiversity on the South African Wild Coast Project". Both project teams shall for instance inform one another on co-management practice in communal and private land contexts. The NGBP is working with the "World Bank-GEF supported Maloti-Drakensberg Conservation and Development Project (MDTP)" which is a collaborative initiative between South Africa and the Kingdom of Lesotho to protect the exceptional biodiversity of the Drakensberg and Maloti mountains through conservation, sustainable resource use, and land-use and development planning. This project focuses on protected areas and tourism planning in the highest mountain areas of South Africa and Lesotho while the NGBP focuses on mainstreaming biodiversity into major production sectors across all of the grasslands biome. MDTP staff are involved in providing technical and conceptual inputs into the design of the NGBP.

Taken collectively, the GEF portfolio in South Africa makes a significant and highly strategic contribution towards strengthening the national institutional and policy framework, piloting innovative approaches to mainstreaming biodiversity in productive sectors as well as introducing new management paradigms, as needed to meet the conservation needs of different regions and ecosystems. The SANBI has been mandated under the biodiversity legislation with providing co-ordination services for a number of bioregional programmes and other initiatives active at a bio-regional level. This provides a mechanism for assuring cross-project synergy, and sharing lessons between projects.

E. DESCRIBE THE INCREMENTAL REASONING OF THE PROJECT:

The incremental costs of the NGBP are the costs associated with lifting barriers towards mainstreaming biodiversity in four production sectors operating in the grasslands biome. Although the broader enabling environment is in place, barriers to mainstreaming biodiversity in production practices stem from market failure, whereby the benefits of biodiversity are not internalised in production prices, weak institutional

capacities across the public and private sectors, and limited know how, regarding the specific manner in which production needs to be adapted to address biodiversity needs. South Africa would capture a portion of the benefits of conservation and has consequently agreed to co-finance a part of the incremental costs of the project in addition to absorbing the baseline. Incremental costs have thus been partitioned between the GEF and non-GEF sources. The GEF will fund activities with largely intangible benefits over the short term, such as capacity building, coordinating stakeholder activities to ensure better congruence in efforts, demonstrating new conservation approaches, including market based approaches, strengthening communications, and strengthening the information system. Investment heavy activities will be co-financed.

The baseline cost, incurred irrespective of the GEF support and which is undertaken primarily to produce domestic benefits and investments amounts to US\$143 million. The cost of the additional activities required to achieve the programme outcomes is estimated at US\$45.56 million of which the GEF would finance US\$8.3 million and co-financiers (local and international) would finance US\$37.26 million. PDF B project preparation costs amounted to US\$691,368 with US\$350,000 from GEF. The total cost of the Alternative Strategy, comprising of the total project costs and the baseline, excluding preparatory assistance is US\$189,011,907. The GEF contribution is a modest 4.4% of this aggregate.

F. INDICATE RISKS, INCLUDING CLIMATE CHANGE RISKS, THAT MIGHT PREVENT THE PROJECT OBJECTIVE(S) FROM BEING ACHIEVED AND OUTLINE RISK MANAGEMENT MEASURES:

The risks confronting the programme have been carefully evaluated during programme preparation, and risk mitigation measures have been internalized into programme design. The relative ratings of risks have informed the programme work plan and budget so as to ensure that time budgets and programme funds are properly geared to addressing risk at the scale needed. A listing of the main risks, risk ranking, and risk mitigation measures is presented in the table below:

Table: Risk Analysis

Risk	Risk Rating	Risk Mitigation Measures
1. Significant increase in external development pressures beyond projected scenario - Major economic changes to production sectors, with consequent impacts on biodiversity, could result from potential macro-economic changes triggered by factors such as continued major increases in the world price of petroleum/ devaluation of the rand etc.	M	- Activities have been designed based on a thorough analysis of threats including a strategic economic assessment - The M&E system will provide early warning of threats, allowing mitigation measures to be proactively instituted - Economic fundamentals are strong in South Africa
2. Difficulties in attaining mutual consensus between biodiversity sector and production sectors on biodiversity needs and production imperative	M	- Demonstrate benefits of real tradeoffs - Programme places major emphasis on voluntary led schemes championed by industry - Carefully monitor and disseminate conservation gains from programme
3. Delays in instituting appropriate incentives that trigger mainstreaming in targeted production sectors	M	- Emphasis to be placed on supporting cabinet approval of the Treasury policy framework for fiscal incentive - Winnable specific fiscal incentives for agriculture that comply with the above framework are already in place - Tax incentives for stewardship in the Property Rates Act, translated into practice on the ground, serve as strong illustration of benefits to farmers - Achievable certification scheme supported by strong marketing campaign to stimulate market demand for certified agricultural products
4. Institutional commitment for mainstreaming outside	S	- Identification and building of champions for biodiversity at the decision-maker level

Risk	Risk Rating	Risk Mitigation Measures
conservation division remain shallow and do not percolate across other divisions such as operations etc		<ul style="list-style-type: none"> - Influencing attitude change towards a better appreciation of the role of biodiversity and ecosystem services by the appropriate pitching of the importance of ecosystem services to underpinning economic growth and development - Demonstration projects show the beneficial link between biodiversity conservation and socio-economic benefits for the poor and the local municipality - Increased brand awareness of the grasslands biome and effective communication strategy implemented
5. Governance by regulatory authorities weakens resulting in increased lack of compliance	M	<ul style="list-style-type: none"> - Development of partnerships between institutions involved in the programme resulting in shared knowledge and skills - Effective capacity building - Continued engagement with decision-makers at national, provincial and local levels to raise concerns - The M&E system will provide early warning of threats, allowing mitigation measures to be proactively instituted

* Risk rating – H (High Risk), S (Substantial Risk), M (Modest Risk), and L (Lowest Risk). Risks refer to the possibility that the assumptions, defined in the logical framework may not hold.

Risks from climate change

Relative to the other South African biomes, the grasslands are expected to be more resilient to climate change in terms of the retention of their spatial coverage. This is because the increased temperatures and rainfall changes, although significant, remain within the bioclimatic range suitable for the dominant growth forms of the biome. Bioclimatic modeling, however, does not take into account two important issues, namely the direct effects of rising atmospheric CO₂ on plants, and the potential impacts of changing climate on fire regimes. While fire regimes might be slightly altered by the expected increased productivity of grasses under future higher temperatures, especially if rainfall increases, the direct effects of CO₂ are likely to be more significant in favoring the greater success of woody shrubs and trees. The effect is likely to be compounded by warmer winters, and may lead to greater rates of bush encroachment on the margins of the grasslands biome.

Projections of the effects of climate change on South Africa biota, including animal species, have identified grasslands as an important future habitat for many species from lower altitudes in the summer rainfall region. The high altitude of the biome makes this an important refuge for summer rainfall biota that require cooler conditions. This refugial function has been shown to be crucial for the persistence of biodiversity in times of past climate change, and thus greatly elevates the importance of biodiversity management efforts in the biome. Retention of a functioning grasslands biome is also crucial because of the water yield from this biome to the major rivers of this region. An invasion of larger-stature woody plants will threaten this important function, in addition to placing the highly diverse flora of this currently open system at risk. Apart from losing the ability to function as a watershed, suitable habitat for specialist grassland and wetland species may be lost. This could lead to an overall reduction in biodiversity and the loss of the provisioning function delivered by the ecosystem. Limiting the fragmentation of this habitat will become ever more important as a means to retain ecosystem function and allow greater resilience under conditions of climate change.

The programme will accommodate these climate change issues by seeking to maintain corridors of natural habitat across climatic gradients to allow species to adapt changing climate. The fragmentation of ecosystems would foreclose adaptation under a changing climate. Priority corridors have been identified through the grasslands spatial assessment that if maintained in a natural state will therefore provide species and ecosystems with the ability to adapt to changing climate. In addition to maintaining these key sites the management activities proposed, such as fire management and alien invasive clearing will be adapted to include the potential impacts of climate change. In the agricultural sector, emphasis will be placed on rangeland management practice that is resilient to climate change impacts.

G. EXPLAIN HOW COST-EFFECTIVENESS IS REFLECTED IN THE PROJECT DESIGN:

Production activities that take little or no cognisance of biodiversity conservation in relevant or cross-sectoral plans, programmes and policies pose a risk to the ecological integrity of the grasslands. This is likely to impose high economic costs by undermining environmental service provisioning capacities. In contrast, the costs of preventing ecological degradation from occurring in the first place are more modest. The NGBP will spearhead the precautionary principle in advancing interventions. Economic assessments will help inform the appropriate level of tradeoffs needed to secure environmental well being, while allowing for the pursuit of development objectives. This is expected to result in a more optimum employment of resources, and improve the chances that conservation initiatives are sustainable. This Grasslands programme seeks to engage directly with production sectors in order to change attitudes and instil an appreciation of the dependence of the different sectors on biodiversity and ecosystem services. It is recognised that command-and-control systems are costly to implement at a large scale, and that where highly prescriptive, they can also impose high financial costs on production activities. The NGBP has been designed to allow production interests to weigh the costs and benefits of different mitigation options in assuring compliance with conservation statutes. This will include the option of off site impact offset arrangements. This is designed to improve the uptake and efficacy of conservation management within production processes. To ensure that environmental management objectives are not compromised in the process, attention will be paid in developing the regulatory frameworks to ensure that the conservation value of offsets is greater than or at least equal to the value of the lands cleared for production. This approach is expected to be cost effective in the long run by shifting the costs of biodiversity conservation from government to the custodians of land and water resources in the biome.

PART III: INSTITUTIONAL COORDINATION AND SUPPORT

A. PROJECT IMPLEMENTATION ARRANGEMENT:

The NGBP will be executed over a five year period by SANBI, following UNDP implementation guidelines. As the Executing Agency, SANBI will sign the grant agreement with UNDP and will be accountable to UNDP for the disbursement of funds and the achievement of the programme objective and outcomes according to the approved work plan. As the objective of the programme is to mainstream grassland biodiversity conservation objectives into production sector activities, a high level of involvement of these sectors is essential. For this reason, the forestry outcome will be implemented through the industry association Forestry SA and the urban outcome will be implemented through the Gauteng Provincial Governments Department of Agriculture, Conservation and Environment, which is responsible for land use planning. Due to the diversity and complexity of the agricultural sector, where there are many institutions representing different commodities, it is not feasible to have one implementing agent. SANBI will house an agricultural programme manager who will contract various institutions for implementation. Implementation of the coal mining outcome will be through SANBI's Working for Wetlands Programme which has links in the coal mining sector due to the fact that wetlands often overlie coal mining resources.

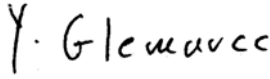
The NGBP programme management arrangements comprises the following structures:

- The Grasslands Forum: an open meeting of private, public, civil society, and academic institutions and individuals who are committed to the vision of the NGBP.
- The Grasslands Steering Committee (GSC): the GSC provides strategic direction and advice, and oversees and facilitates the design and implementation of the NGBP. It consists of the following institutions: DWAF, DEAT, DoA, AgriSA, Forestry South Africa, GDACE, UNDP/GEF, WWF-South Africa and SANBI. It meets approximately three times a year. It is chaired by SANBI.
- The Grasslands Coordination Unit (GrassCo), responsible for programme coordination
- Sector Task teams, to coordinate sector engagement (functions are detailed in the Project Document).

PART IV: EXPLAIN THE ALIGNMENT OF PROJECT DESIGN WITH THE ORIGINAL

PIF: The project is fully aligned although it was developed under the operational procedures for GEF RAF-3.

PART V: AGENCY(IES) CERTIFICATION

This request has been prepared in accordance with GEF policies and procedures and meets the GEF criteria for CEO Endorsement.	
 Yannick Glemarec UNDP GEF Executive Coordinator	Nik Sekhran Project Contact Person
Date: October 23, 2007	Tel. and Email: 27 12 354 8131, nik.sekhran@undp.org

ANNEX A: PROJECT RESULTS FRAMEWORK

LFA with Programme Goal, Objective, Outcomes and Impact Indicators

Programme Strategy	Objectively verifiable indicators					
	Indicator	Baseline	Mid-term Target	End of Programme Target	Sources of verification	Risks and Assumptions
Goal: The biodiversity and associated ecosystem services of the grasslands biome are sustained and secured for the benefit of current and future generation						
Programme Objective: Major production sectors are directly contributing to the achievement of biodiversity conservation priorities	Contribution of NGBP towards achievement of biodiversity target for grasslands biome. The target is 22.3% of vegetation types within natural areas in the grasslands biome	1.9%	2.6%	4%	Annual reports of SANBI and implementing agencies in the NGBP	Political stability, law and order are maintained; There is relative stability in South Africa's economic position
	Biodiversity Intactness Index ¹	65	No less than 1% of decline from baseline	No less than 2% of decline from baseline	NGBP M&E reports based on: - Biodiversity Intactness Index	External pressures on grasslands biome remain within projected threat profile including the impact of human induced climate change
	Degradation indicator – percentage of biome degraded	11 – 20% based on expert opinion	Timeframe too short to have mid-term indicator	No major increase in degradation	- Remote sensing and national land cover data - Site based monitoring in biodiversity priority areas	The increase in the morbidity and mortality from the HIV/AIDS pandemic does not outpace the response capacity of healthcare services and institutions

¹ The BII developed for use in the Southern Africa Millennium Ecosystem Assessment is an indicator of the state of biological diversity within a geographic area. It uses spatial data on species richness and land use activities per ecosystem type to weight estimates, provided by taxon experts, of the reduction in abundance of all well known species under a range of land uses. Work done to date will be adapted through inputting new data on degradation levels and land use impacts within the grasslands biome.

Programme Strategy	Objectively verifiable indicators					
	Indicator	Baseline	Mid-term Target	End of Programme Target	Sources of verification	Risks and Assumptions
Outcome 1: Enabling environment for biodiversity conservation in production landscapes in the grasslands biome is strengthened	1.1 Bioregional plans for grasslands biome gazetted at appropriate levels	0%	15% of biome covered	45% of biome	Gazetted bioregional plans	Enabling legal and policy framework continues to supports effective cross sectoral institutional collaboration Implementing agencies and other key stakeholders continue to maintain a cooperative, collaborative working relationship that results in information sharing and knowledge management No undue delay in bioregional plans being gazetted
	1.2 Number of key affiliated private and public sector organisations that have entered into MoU with NGBP contributing towards conservation targets ²	0	10 institutions	21 institutions	M&E reports	
	1.3 Institutional mainstreaming effectiveness scorecard SANBI GDACE, Forestry SA	Mainstreaming effectiveness scorecard has been developed 29% 28% 29%	51% 43% 46%	76% 72% 66%	Institutional effectiveness reports	
Outcome 2: Mainstream grassland biodiversity conservation objectives into agriculture	2.1 Agricultural laws, policies and guidelines incorporate biodiversity management objectives	Laws, policies and guidelines focus on production	Veld management guidelines for biodiversity on rangeland	Sustainable Land Use Management Act passed DWAF's SFRA includes some agricultural activities	Government gazette Agricultural policies and guidelines DWAF's SFRA list	Economic drivers of agriculture remain within projected scenario Predictable and measured roll out of land reform Conflicts in demonstration areas effectively managed and

² In forestry sector key institutions are DWAF, FSA; in agricultural sector key institutions are AgriSA, NAFU, RPO, NERPO & W.R.S.A.; in urban sector key institutions are GDACE, Jo'burg Tshwane & Ekurhuleni Metros; in coal sector key institutions are Chamber of Mines & specific company involved in off-set; for enabling environment key institutions are DEAT, MPB, KZN Wildlife, EC DEAET, NW DEAT, WESSA, EWT, Botanical Society, GSSA

Programme Strategy	Objectively verifiable indicators					
	Indicator	Baseline	Mid-term Target	End of Programme Target	Sources of verification	Risks and Assumptions
	2.2 Certification system and marketing programme in place for environmentally appropriately farmed red meat	None	Certification system approved by industry	Industry led marketing scheme for certified produce in place	Industry approved certification scheme	stakeholder social relations conducive to effective action Continued growth in demand for certified agricultural produce
	2.3 Amount of agricultural land in the grasslands biome where agricultural planning, decision making and extension incorporates biodiversity management objectives 2.3.1 Amount of land in demonstration districts where biodiversity management good practice (BMGP) is being implemented by farmers 2.3.2 Amount of land in demonstration districts within biodiversity priority areas where stewardship has secured land for biodiversity conservation	0 hectares	Amount of agricultural land in demonstration districts where: 1. BMGP is being implemented: 60 000 2. Stewardship has secured biodiversity: 9 000	Amount of agricultural land in demonstration districts where: 1. BMGP is being implemented: 180 000 2. Stewardship has secured biodiversity: 22 000	M&E reports - Remote sensing and national land cover data - Site based monitoring in biodiversity priority areas	Regulatory authorities within the agricultural and water sectors govern effectively

Programme Strategy	Objectively verifiable indicators					
	Indicator	Baseline	Mid-term Target	End of Programme Target	Sources of verification	Risks and Assumptions
	2.4 Knowledge about how to conserve and rehabilitate non-perennial river ecosystems and the impact of agriculture contributes towards the 20% river ecosystem type target within the grasslands biome	<p>Koranna Spruit classified at a class B level which contributes 2.07 % river length to the total class B level rivers in the Highveld (11.03) eco-region.</p> <p>Sepane Spruit classified at C+ level not contributing to the river ecosystem target.</p>	<p>Koranna Spruit retained at a class B level which contributes 2.07 % river length to the total class B level rivers in the Highveld (11.03) eco-region.</p> <p>Sepane Spruit partially improved from a class C moving towards a C+ level to contribute 2% river length to the total class C level rivers in the Highveld (11.03) eco-region</p>	<p>Koranna Spruit retained at a class B level which contributes 2.07 % river length to the total class B level rivers in the Highveld (11.03) eco-region.</p> <p>Sepane Spruit has improved from a class C to a C+ level to contribute 4.7 % river length to the total class C level rivers in the Highveld (11.03) eco-region.</p>	M&E reports - FS river ecosystem project	

Programme Strategy	Objectively verifiable indicators					
	Indicator	Baseline	Mid-term Target	End of Programme Target	Sources of verification	Risks and Assumptions
Outcome 3: The forestry sector directly contributes to biodiversity conservation objectives in the grasslands biome	3.1 Amount of forestry estate in grasslands biome under 3.1.1 Plantation 3.1.2 Options areas, i.e. existing unplanted forestry company owned land that is better managed 3.1.3 Formal conservation areas	Area of existing forestry estate in South Africa under 1. Plantation: 1.15 million ha 2. Basic management as unplanted land: 532,780 hectares 3. Formal conservation : 0 ha	Amount of forestry estate in South Africa under 1. Plantation: 10 000ha expansion; 5 000ha where clearing of riparian zones decreases size of plantation 2. Better management as unplanted land: 133,195hectares 3. Formal conservation: 15,000 hectares	Amount of forestry estate in South Africa under 1. Plantation: 20 000ha expansion; 10 000ha where clearing of riparian zones decreases size of plantation 2. Better management as unplanted land: 426,224 hectares 3. Formal conservation: 35,000 hectares	NGBP M&E reports based on: - Remote sensing and national land cover data - Site based monitoring in biodiversity priority areas Industry reports National Protected Area Register	Continued profitability of forestry industry is assured Continued growth in international market demand for environmentally certified forest products No material breakdown in the institutional relation between the key stakeholder groups (small growers, FSA, DWAF, EIA authorities) Regulatory authorities within the forestry sector continue to govern effectively
	3.2 No new plantation development in biodiversity priority areas within the grasslands biome	No formal definition of priority areas	Priority areas designated	No new plantations in designated priority areas	SANBI and DWAF GIS maps	

Programme Strategy	Objectively verifiable indicators					
	Indicator	Baseline	Mid-term Target	End of Programme Target	Sources of verification	Risks and Assumptions
	3.3 Industry certification system and standards better incorporate grassland biodiversity objectives	National FSC compliant Standard not yet set Grassland biodiversity not adequately reflected in FSC Principles & Criteria No small grower certification system successfully implemented	National FSC compliant Standard exist FSC Principles & Criteria incorporate grassland biodiversity objectives Sustainable forestry management system for small growers piloted	Small grower certification system implemented	FSC certification reports M&E reports	
Outcome 4: Grassland biodiversity management objectives mainstreamed into urban economy in Gauteng	4.1 Biodiversity priorities accommodated in municipal open space frameworks and spatial development frameworks	Overlap between c-plan and existing municipal SDFs and EMFs estimated at 40%	10% increase in overlap	20% increase in overlap	Gauteng conservation plan Municipal SDFs and EMFs	Continued buy-in to address biodiversity concerns in urban domain by political decision makers and private sector Programme builds and maintains effective coordination between departments and spheres of government
	4.2 Conservation areas give legal protection to refugia representative of grassland biodiversity	0	12 000ha	30 000ha	Legal documents	

Programme Strategy	Objectively verifiable indicators					
	Indicator	Baseline	Mid-term Target	End of Programme Target	Sources of verification	Risks and Assumptions
	4.3 Institutional mainstreaming effectiveness scorecard for GDACE, Tshwane MC, Ekurhuleni MC, Jo'burg MC, Mogale LM, West Rand DM, Sedibeng DM and Lesedi LM	Mainstreaming effectiveness scorecard has been developed and score will be determined before project implementation starts	12% increase in score	30% increase in score	Institutional effectiveness report	Restructuring of local government does not result in a significant loss of institutional memory Regulatory authorities within the urban sector continue to govern effectively
Outcome 5: Biodiversity management secured in coal mining sector	5.1 Amount of land where wetlands protected through wetland mitigation and/or banking offsets	0 ha of protected wetlands	800ha of wetlands protected through offsets	2 000ha of wetlands protected through offsets	Mining company reports	Extent of coal mining expansion remains within projected threat profile Pressures on government for delivery of economic growth amongst small growers does not result in environmental short cuts
	5.2 Biodiversity planning information used by mining companies and regulatory authorities to plan new coal mines	MBCP ³ not yet adopted by provincial cabinet	MBCP used by Mp DME & 3 companies	MBCP used by Mp DME & all big companies	Maps showing location of coal mines has taken biodiversity priority sites into account	Environmental risks and liabilities provide driver for industry investment in environmental management

³ MBCP = Mpumalanga Biodiversity Conservation Plan

ANNEX B: RESPONSES TO PROJECT REVIEWS (from GEF Secretariat and GEF Agencies, and Responses to Comments from Council at work program inclusion and the Convention Secretariat and STAP at PIF)

The following reviews and project responses are included:

- a. Council review and reponse
- b. GEF Secretariat and other Agencies' Comments and IA/ExA Response
- c. STAP Technical Review of Project Proposal

a) COUNCIL

Main concerns from Swiss - N°08: South Africa: National Grasslands Biodiversity Program, (IA-UNDP); GEF: USD 8.65 million; total: USD 45.56million	
Council comment	Clarification/response
<p>1. The project aims at “some” strategic expansion to the protected area system without specifically addressing how this will be achieved in view of the predominantly private land ownership of the targeted grasslands. In this context the questions of critical minimum size (of protected areas) related to the available “fragments” and how the ecological and financial sustainability of isolated fragments can be achieved should be addressed.</p>	<p>The grasslands are characterized by moderate- high gamma diversity which is not evenly distributed across the landscape. Presently 80 different vegetation types and 42 river ecosystem types are recognized occurring predominantly on lands that are currently located in an mixture of production landscapes, with the dominant land uses being agriculture (livestock husbandry and cultivation), plantation forestry, urban areas and coal mining. Thus in order to achieve representation of all the unique biodiversity of the biome it is necessary to adopt mainstreaming interventions in these main production sectors that secure many small areas across the landscape. Various tools will be used including set asides where warranted and feasible.</p> <p>The project builds on baseline activities undertaken by conservation authorities throughout the grasslands biome to consolidate and expand the protected area estate. It will also contribute to strategic expansion of the protected area system through conservation stewardship. Stewardship involves the wise use, management and protection of natural resources by private landowners, underpinned by incentives. The options that will be pursued in the agricultural sector, the amount and location of the land to be secured are set out in paragraph 116 of the Programme Document. The details in the forestry sector are set out in paragraph 120 of the programme document while the details for the urban sector are contained within paragraph 125. In all cases the issues of ecological and financial sustainability have been considered and appropriate implementation measures will be taken to address these valid concerns. For example, in the forestry sector, use will be made of provisions in the new Protected Areas Act that allow for land to be declared a protected area but ownership and management to remain vested in the private company which has the required financial capacity. The issue of “fragments” was addressed through the criteria used to identify land (with preference being given to land adjacent to existing protected areas or natural areas that can form corridors across the landscape) although in the urban context this is clearly constrained by current (and planned) urban development. Fragmentation is an important area in which ongoing research, which informs adaptive management of the programme, is required.</p>
<p>2. The project insufficiently addresses the economically under-privileged group of subsistence farmers and herders depending on the grasslands for their livelihood. It remains unclear</p>	<p>The programme focuses on mainstreaming biodiversity in the agriculture, forestry, coal mining and urban sectors. Interventions in the agricultural sector occur at a macro and micro level and will involve the commercial, emerging and subsistence sub-sectors. South Africa’s history of colonial occupation, dispossession and racial</p>

<p>how this critical stakeholder group will participate in and benefit from the program and how it will develop ownership in the project. The project's focus is clearly on large-scale producers and landowners within the different production sectors.</p>	<p>discrimination under apartheid resulted in great inequities in land distribution, with blacks being restricted to reserves constituting about 13% of the land surface, while the bulk of the land became the private property of white individuals. The Government's stated land reform target is to transfer 30% of the land to black ownership by 2014. This includes lands under production (e.g. forestry, agriculture) in the grasslands. There is a need to strengthen the capacity of these future landowners to manage their land and natural resources and this is built into programme interventions where relevant. For this reason the demonstration project in the Wakkerstroom / Luneburg area involves the Mabaso community who are championing an innovative land reform project within KwaZulu-Natal which is combining conservation and land reform. The area consists of 3000ha which has returned to the community as part of a land claim. The site is situated on a highly important biodiversity area. A further area of focus of the programme is to ensure that capacity building for biodiversity management is integrated into post-settlement initiatives in the land reform process such as transfer of forestry land. The coal-mining component is working with Working for Wetlands, a major national programme aimed at job creation through wetland rehabilitation, in the implementation of interventions in this sector.</p> <p>At the broader enabling environment level the Programme will engage with key development policy initiatives of Government and provide institutional support for these. For example, the Accelerated Growth Initiative (ASGISA) identifies several aspects of concern to the biodiversity management agenda in the dual arenas of environmental governance and institutional performance. Especially relevant is the perceived drag on development arising from inadequate and imperfect environmental regulatory instruments and governance systems. This calls for systems to improve the efficacy of regulation, including through improving coordination between regulatory agencies. The Programme will attempt to demonstrate how such systems can be developed especially in the forestry sector when small grower expansion can be directed to land of low biodiversity significance through the use of the spatial biodiversity planning tool and growers supported to develop sustainable forestry management practices.</p>
<p>3. The global benefits expected from the project as described in the proposal are not very convincing.</p>	<p>Grasslands cover about 40% of the earth's non ice-bound terrestrial surface and are home to over 1 billion people. Globally, grasslands house many important fauna and flora and occur in 15% of Centres of Plant Endemism, 11% of Endemic Bird Areas and 29% of ecoregions with outstanding biological distinctiveness (White et al, 2000). In addition to their biodiversity significance, grasslands provide essential ecosystem goods and services required to support human life and well being. These include forage for livestock, water and nutrient cycling services, soil stabilization, carbon storage, energy supply, and recreation (Reyers et al, 2005). The grasslands in South Africa are a very old, complex and slowly evolved system of diverse plant communities. The area is exceptionally rich in floristic diversity and harbours a very high diversity of indigenous species, second only to the Cape Floristic Region (greater at 1000m² scale; O'Connor & Bredenkamp, 1997). The mean species richness of 82 species per 1000 m² is second only to the Renosterveld vegetation community. Most plant reproduction takes place vegetatively rather than through seed production, particularly among the bulbous plants and climax grasses. Only one in 6 plant species in the South African grassland community is in fact a grass. There are 34 grass taxa that are endemic</p>

	<p>to the Grassland biome. The remainder are bulbous plants that include arum lilies, orchids, red hot poker, aloes, watsonias, gladioli and at present 54 known species of ground orchids⁴ (McAllister, 1998a). Among the herbs, high endemism occurs in the orchids (108 endemics) (Mucina & Rutherford, in press).</p> <p>Despite, and often because of their value, grasslands across the world are one of the biomes most impacted on by human activity. A number of global ecosystem/region assessments have found that grasslands are one of the greatest conservation priorities worldwide. Globally they remain one of the least conserved biomes, with just over 7% of grasslands falling into protected areas, and temperate grasslands having less than 0.69% protected. The principal global environmental benefit of the programme derives from the added security provided for grassland ecosystems and constituent flora and fauna through effective mainstreaming of grassland biodiversity conservation objectives into production sector practices. In addition, the stewardship element embedded within the mainstreaming approach will result in innovative formal protection of refugia representative of grasslands biodiversity within the agricultural, forestry and urban sectors. One important global benefit will be the protection in situ of the wild races of many hybrid flowers important to commerce. These include the arum lilies, watsonias, and gladioli.</p> <p>Further information on global significance of SA's grasslands biome and benefits is provided in section 1.2, paragraph 113 and Table 11 in the Programme Document.</p> <p>The STAP Technical Review by Dr Panta Kasoma found that "The proposal clearly outlines the global importance of the grassland biome biodiversity, in terms of ecosystems and key species, some of which are endemic or threatened to various degrees."</p>
<p>4. The project goal (i.e., biodiversity and associated ecosystem services of grassland biome sustained and secured) cannot be achieved within the five-year project timeline. Neither will it be feasible to wisely spend the requested US \$ 8 million plus US \$ 45 million counterpart funds within the proposed time period.</p>	<p>The Programme does not seek to achieve the goal within five years, but to contribute to this goal through the achievement of specific outcomes and outputs as specified in the Logical Framework Analysis. The Grasslands Programme is conceptualized as a ten year programme and adopts a phased approach comprising a suite of carefully designed and targeted interventions split into two phases of five years each. See paragraphs 105 and 106 of the Programme Document.</p> <p>In the preparatory phase the Programme was able to draw on lessons learnt from other bioregional programme such as the C.A.P.E. which also adopted a phased approach.</p> <p>The budget has been developed in detail and is tightly linked to these outcomes, outputs and activities and will be wisely spent within the five year time period. The original budget developed for the Programme was originally US\$12 million. Following careful discussion with Programme stakeholders, the activities were scaled back resulting in the lower budget of US\$8.3 million which was agreed by stakeholders to be a reasonable budget to deliver on the suite of interventions required to meet the Programme objective within the 5 year timeframe. When compared to the baseline of US\$143 million the \$8.3 million is not so large. The Programme is convinced that it requires the full US\$8.3 million for it to deliver on its objectives in the first five years.</p>

⁴ Many of these plants are important to the global trade in cut flowers and garden flowers. While the trade consists mainly of hybridized varieties, the South African grasslands biome is important for the conservation of wild races.

<p>5. The proposed incentive options still remain to be tested. Property tax incentives in particular for private protected areas are no guarantor for sustainability of such areas.</p>	<p>It is correct that the incentive options are still to be tested and this is part of the innovation of the programme. A range of incentives have been developed in three categories – regulatory, optional and negotiable – and thus there will not be reliance on only property tax incentives. See table 7 in the Programme document.</p>
<p>6. The high number of stakeholders representing a large diversity of producers, developers, small-scale landowners, agencies, line ministries, industry, etc. poses a very high risk to the overall project success, making a sound quality control of deliverables and project impact monitoring very difficult. This risk is rated as “modest” in the proposal, but rather should be rated “high”.</p>	<p>The scale and scope of the programme (across a third of South Africa and six provinces, five of the biggest cities, including the maize belt and coal fields etc) requires that the programme engages with a wide range of public, private and civil society sectors. To ensure effective delivery, very specific outcomes and outputs have been agreed with these stakeholders who have committed themselves to implementation. The Grasslands Programme has been long awaited in South Africa (with early conceptualizations of the programme developed in the 1980s) and has considerable interest and support from this broad stakeholder base. The Government of South Africa has already initiated the programme and cultivated support from a broad range of actors as reflected by the co-finance. The stakeholder approach has been developed based on lessons learnt from other bioregional programmes in South Africa and is deemed feasible in light of these experiences. Thus the risk is rated as “modest”.</p>
<p>7. The opportunity to rehabilitate degraded lands (i.e., 6%) and more effectively manage range land (i.e., 63%) appears to be insufficiently addressed.</p>	<p>Improving the management of rangeland is a core strategy of the programme (paragraph 115 in the Programme Document). The programme will work with groups of landholders, land users and workers at a local level in demonstration districts to test ways and means of accommodating biodiversity needs in production practices, with a matrix of land uses being promoted. For example, in the Wakkerstroom/Luneburg field demonstration, Biodiversity Good Management Practices (BGMP) will be piloted through developing:</p> <ul style="list-style-type: none"> - A suite of cost effective strategies to retain grazing as a biodiversity compatible land use on both commercial and communal land - A simplified integrated system for ploughing permits under CARA and NEMA which results in biodiversity priority land not being ploughed - An understanding of BGMP and a means of incorporating them into policy for both commercial farms and communal land - Effective implementation of agricultural directives and land use restrictions through stewardship agreements for both commercial and communally owned land <p>The Programme is working with Government land rehabilitation programmes such as Land Care but will not be directly utilising the funds to undertaking such interventions. Rehabilitation was considered when developing the strategy but was not pursued, as the cost per unit effort in terms of conservation dividend was considered too low.</p>
<p>8. The project proposal insufficiently (not at all?) addresses the need for capacity development of the rural poor as key players.</p>	<p>As noted under point 2 above, the programme intends to address issues related to transformation of the production sectors through land reform and ensure that the capacity required for biodiversity management is developed amongst the new managers and owners of land. This is being addressed through cross-cutting sectoral interventions (e.g. training in the forestry sector) but also through demonstration districts projects that involve groups of rural poor as beneficiaries of the land reform process and new managers of this land. The required capacity to effectively implement this element of the programme is addressed in its human resource plan where, for example, in the Mabaso project a community liaison officer will be employed.</p>

Further comments on the Executive Summary	
<p><u>Page 5:</u> Please explain how the project will integrate subsistence herders into the proposed “red meat market” certification process.</p>	<p>As part of the land reform process and the transformation of South Africa’s economic sectors through broad-based black employment equity (BBBEE), groups of rural poor are increasingly being integrated into the formal economy, either as new land owners (land reform) or as shareholders in industry (sectoral transformation). The Grasslands Programme has entrenched its interventions in production sectors and will therefore be closely aligned with the transformation taking place in these industries as a key macro-economic policy aimed to integrate the rural poor into the formal economy. Aside from direct linkages with specific communities in the demonstration districts who would be linked into the opportunities provided through the “red meat” certification processes, the programme has also partnered with representative bodies of emerging farmers, such as the National Emerging Red Meat Producers Organisation (NERPO), National African Farmers Union (NAFU), as well as the extension services of the national and provincial departments of agriculture.</p>
<p><u>Page 5:</u> It is not clear how the mere “recognition of good forest management” can be enough of an incentive to a plantation owner to mainstream Biodiversity conservation into plantation management. An explanation is needed how grassland biodiversity can be preserved in intensive forest plantation management with a rotational cycle of 10-20 years.</p>	<p>The Programme recognizes the impact of plantation forestry on biodiversity. In South Africa the forestry industry owns large tracts of land which are unplanted with commercial plantations and which will never be planted (mainly because they are not commercially viable or due to water shortage). This 532,780 hectares of land lies adjacent to and in between commercial plantations and how it is managed is very significant for biodiversity conservation. Thus the areas of focus in the forestry sector are on unplanted land of (significant) biodiversity value that is owned by the forestry sector. One stream of interventions involves working to secure 37 biodiversity priorities sites, which with the commitment of the landowners (major forestry companies) will be formally secured as nature reserves or protected environments in terms of national legislation.</p> <p>Another stream of interventions involves working with the companies to ensure that their estates are better managed. An example is the need to strengthen existing market-accepted certification schemes to ensure that grasslands biodiversity issues are integrated into a national Forest Stewardship Council standard that is being developed in SA. In South Africa, 80% of plantation forestry is FSC certified, and thus an improvement in the biodiversity element of this system has impact on a large amount of land. The incentive is built into the FSC system and is not just a “mere recognition of good forestry management”.</p> <p>A third stream of interventions involves the Government looking at ensuring that new plantation forestry does not take place in high priority biodiversity areas. The Government believes that with this range of interventions, effective strides will be made to ensure that biodiversity management is integrated into the forestry sector and that priority biodiversity areas are formally secured.</p>
<p><u>Page 6:</u> How exactly will the proposed “ecological goods and services” be qualified and quantified and accounted for in “responsible land management”?</p>	<p>As part of the preparatory work research has done to better understanding the monetary value of South Africa’s grasslands biome as reflected in paragraph 134 of the Programme Document. This work estimated that the value of the flow of ecosystem services in grasslands to be in the order of R9.7billion per annum, or R29,005 per km.</p> <p>The Grasslands Programme will work closely with South Africa’s National Treasury and other partner organizations driving environmental fiscal reform in the country. There are two key</p>

	<p>initiatives that are currently attempting to address the complex issues of how ecological goods and services are quantified and how to use fiscal instruments to incentivise better land management. National Treasury has identified the need for coherent policies on fiscal instruments and incentives that promote sound environmental management and biodiversity stewardship. A national framework on environmental fiscal instruments, which has the potential to create a positive enabling environment for biodiversity, has been released by National Treasury.</p> <p>Secondly, a national initiative is underway to explore the feasibility of a Natural Resource Accounts system that incorporates biodiversity values. The idea is to integrate data on environmental capital values into national accounts, to guide decision-making. This is a key instrument for making the case for the value of grasslands ecosystem services in line with the UN System of Integrated and Environmental Accounting. While this initiative is young in South Africa, the Grasslands Programme will be actively engaged with it.</p>
<p><u>Page 8:</u> A second phase (2012-2017) has been proposed; why not simply extend the already very short timeline of the proposed project on the same budget.</p>	<p>As indicated in point 4 above the Grasslands Programme is conceptualised as a ten-year programme and adopts a phased approach comprising a suite of carefully designed and targeted interventions split into two phases of five years each. During the first phase (2007-2012), GEF supported activities will be focussed on building South Africa’s capacity to absorb and sustain investments designed to sustain and secure grassland biodiversity. At national level, GEF resources will be dedicated towards building capacity at the systemic, institutional and individual scales to plan, execute and monitor activities. The funding is intended to improve the enabling environment, an endeavour towards which other funding has been leveraged. At the same time, local level activities will demonstrate how production practices in the different production sectors can be adapted in order to address biodiversity management objectives. The budget for phase 1 is fully required if planned outcomes and outputs are to be achieved. Phase 1 will not be successful if the budget is extended to cover a ten-year period.</p> <p>The second phase (2012 – 2017) will focus on leveraging investments to consolidate progress from phase 1, scaling up best practices which have been identified during the first phase and advancing state of the art measures to adapt mainstreaming approaches to anticipated long-term climatic changes. These interventions will ensure that land is not just conserved but productively used, thus ensuring social and economic sustainability beyond environmental objectives.</p>

b) GEF SECRETARIAT

b) GEF Secretariat and other Agencies' Comments and IA/ExA Response

GEF SEC Comment	IA/ExA Response	Reference in Ex Summ.
Timeframe: please indicate the start and ending dates for project preparation and implementation.	The project has duration of 5 years with implementation set to commence in May 2007 and conclude in April 2012.	See section 4(e)
Expected impact: please indicate the kind of impact that the project will bring at the level of global environment and any other significant impact.	The programme will secure key biodiversity values in the grasslands biome in South Africa through integrating biodiversity management objectives into the production decisions and operations of the major production sectors in the biome. This will contribute to the achievement of grassland biodiversity conservation targets.	Section 1(b) para 20-22
Innovation: please identify if the project has any innovative measures in its design or implementation.	The innovation of the project is to engage production sectors as central agents in the conservation of grassland biodiversity. The project is engaging stakeholders in these sectors in the design and implementation of measures that will incentivise industry to conserve grassland biodiversity as part of their operations. In other words, mechanisms facilitated through the project will ensure that the conservation of grassland biodiversity will make good business sense.	Section 1(b) para 24
Please explain the meaning of "optional" and "negotiable" incentive options in table 7 (Incentive Framework)	Optional refer to voluntary measures, while negotiable refers to the suite of options that may be negotiated with Government as part of permit conditions.	See Table 5 (Incentive Options)
Executive summary to the tables and annexes that seem to be mistaken (the same applies to the stakeholder involvement section and the M&E section).	This has been corrected.	Referenced in the Ex Summ throughout document.
Please indicate the total cost of M&E.	US\$325,000 The M&E Budget is provided in the Annexes to the Project Document—See Annex V.	Annex A, para 7.
Please specify if co-financing is in-cash or in-kind and provide the tables on project costs, project management budget/cost, consultants and co financing sources, using	The tables on project costs, project management budget/cost budgets and co-financing costs have been added to the EX SUMM as per the revised template.	Section 4 (Financing, Tables 6, 7, 8, 9

GEF SEC Comment	IA/ExA Response	Reference in Ex Summ.
the updated Project Executive Summary Template.		
Letters of co financing are not provided.	These were provided, with the submission.	The letters have been re-attached
<p>Costs per staff week for local consultants seem very high (\$6,575 per week); please explain.</p> <p>Consultants working for technical assistance: costs per staff week are very high.</p>	<p>The cost of local consultants in South Africa varies depending on the expertise required and on the strength of the South African Rand as local consultants are paid in local currency. The daily rates for consultants with average experience and a postgraduate degree is R3000–R3500 (\$445-\$520). Consultants with more specialized skills or a higher level of experience can charge rates between R3500 – R4500 (\$520-\$667), depending on their field.</p> <p>The implementation approach adopted by the Grasslands Programme is one where a small core team of long term consultants is appointed to provide technical input and coordinate/manage the implementation of the Programme. However, given the scope of the Programme and the innovative and specialized nature of some of the interventions, the use of short-term consultants is essential to ensure that the Programme delivers on its outcomes. The contribution of co-finance by the project implementation partners to cover these expenses has enabled us to prioritize the GEF funds allocated for consultancies specifically for catalytic interventions that will be replicated or implemented by other agencies.</p>	Section 4(c), table 8
Project management budget table shows 60 months under office facilities, equipment, vehicles and communications. Please clarify.	This line item is 100% co-financed and represents 3% of the overall total budget (co-finance and GEF funds). The project duration is 60 months or 5 years. Over this period, the co-finance provided by many of the implementation partners (including government agencies, NGOs and private sector partners) covers costs related to operational aspects of the project. For example, office facilities, equipment, vehicles and communications are part of the co-financing commitments of SANBI, GDACE, Ezemvelo KZN Wildlife, Forestry SA. These are	Section 4(b), table 7

GEF SEC Comment	IA/ExA Response	Reference in Ex Summ.
	essential contributions towards the implementation of the Grasslands Programme.	
In addition, cost of personnel consultants is higher than local and international consultants. Please clarify.	<p>This item is 100% co-financed and represents 3% of the total budget (co-finance and GEF funds).</p> <p>In addition to covering operational costs, much of the co-finance raised by the Grasslands Programme covers the staff time or personnel costs of employees within our partner agencies who will be working on activities that contribute towards the outcomes of the Grasslands Programme. These are important contributions that indicate the high degree of commitment by stakeholders towards the Grasslands Programme. These costs are usually high because they include agency loaded costs (pension, etc) and a percentage of agency internal oversight costs as required under South African Law. However, having closely examined and recalculated these figures, it appears that an error was made in the calculations. This has been amended in the table and the estimated number of weeks now brings the figure in line with acceptable rates in South African terms.</p>	Section 4(c), table 8

C) REVIEW BY EXPERT FROM STAP ROSTER (IF REQUIRED)

a) STAP Technical Review of Project Proposal

National Grasslands Biodiversity Programme (NGBP)

Dr Panta Kasoma

7 September 2006

Scientific and technical soundness of the project

1. There is clear evidence of a strong **natural science** basis for the proposed project. This is partly due to the fact that South Africa has completed its National Biodiversity Strategy and Action Planning process which has led to the identification of key areas requiring conservation action. The Grassland Biodiversity Profile and Spatial Biodiversity Priority Assessment that was undertaken during the preparation of this proposal also applied a rigorous analytical process to identify threats to the grassland biome. The proposal alludes to the high gamma diversity characteristic of the biome. Whereas this gives a measure of overall diversity within the region, it would be equally important to highlight Beta diversity, which essentially compares diversity between ecosystems. For example, it would be interesting to know how the 80 different vegetation types recognized relate to each other in terms of species composition. That may be useful in prioritizing areas for conservation.
2. The project proponents also discuss the socio-economic setting in which the proposed project will take place. However, it would have been more informative for the **Social science** issues regarding the black community and how it relates to the grassland ecosystem were more clearly elucidated. For example, it is not clear whether the 13% of the land surface currently occupied is wholly within the grassland biome and how much of this will be affected by the proposed reform programme targeting 30% of the land surface by 2014. This would highlight the need for capacity building within the black community. I am also not sure whether the “black community” is homogeneous in terms of culture and livelihood strategies. This often determines what interventions government or other agencies may undertake. With the exception of this reservation, there is sufficient ecological and technical information for a sound project.
3. The fact that the South African grassland biome harbors such a wide variety of activities from subsistence and commercial agriculture through forestry and mining to urban development implies a lot of human pressures. This limits the potential of protected areas to cater for all the biodiversity conservation needs of such a landscape. The **threats** to the grassland biome are clearly pointed out and the idea of mainstreaming biodiversity conservation in productive activities is indeed an idea that would have greater impact than mere PAs.
4. The South African grassland biome covers a large part of the country over wide altitudinal and climatic ranges. Like elsewhere in the world where focus is on forest, this biome is poorly represented in protected area systems and consequently has been a center of economic activities. This has contributed to its threatened status. The diversity of economic activities implies a fragmented approach to natural resources management because of the differing mandates of the various sectoral agencies responsible for various activities. If acceptable representative ecosystems within the biome are to be conserved, it is necessary to enlist the support of all stakeholders within this production landscape. This proposal suggests bringing on board a variety of stakeholders ranging from civil society organizations, government and

- private sector in the proper management of the area to enhance biodiversity conservation objectives while enhancing economic productivity. This relatively novel approach to **ecosystem management** to enhance conservation objectives regards the production landscape as a holistic unit where economic activities could be integrated with biodiversity conservation to maintain biome integrity as well as the environmental services it provides. The proper functioning of such a system can only be maintained or enhanced when the different stakeholders involved in its use and management are all brought on board.
5. The major outcomes of the proposed project are based on the five major threats (or main economic activities in) to grasslands. The proponents developed a comprehensive set of **indicators** for each of the outcomes and the means to verify the indicators. They went further to explain the rationale for selecting the indicators. The log frame developed also mentions the associated assumptions and risks that could influence the achievement of the outcomes. This will enable a determination of how the project is succeeding in meeting its objectives.
 6. A comprehensive project-monitoring framework, which will ensure that project objectives are met in a transparent and credible manner, has been developed. It includes a variety of institutions as well as programme staff and, where appropriate, consultants who will monitor project progress within a timeframe ranging from daily through monthly, quarterly, annually and beyond. Since the aim is to complement existing conservation initiatives by mainstreaming biodiversity conservation into selected major economic activities, a broad range of institutions will inevitably be involved in assessing impact and performance indicators so as to gauge the progress of the project. The anticipated capacity building initiatives proposed in the project should facilitate this monitoring process.
 7. The thrust of the proposal is to mainstream conservation objectives into the agriculture, forestry, urban development and coal mining sectors. These same activities were identified as posing significant threat to the grassland biome, if not brought on board. There is already an excellent enabling policy and legal framework for this to happen. What this proposal will attempt to do is to improve implementation of the policies and laws through the use of various approaches including, closer coordination and use of economic instruments to promote biodiversity conservation. The private sector, by its nature, is known to respond more readily to economic than other instruments. The **approaches** adopted in the project proposal will therefore enhance biodiversity conservation. Entrepreneurs in the various sectors will now see it as beneficial to conserve biodiversity. Is there room for including some sort of periodic award scheme for best performing private sector players, as an incentive for better performance? It could be a certificate of recognition, a trophy or something similar.
 8. Certain **risks** or **constraints** were identified as being likely to affect the achievement of project objectives, if they were not mitigated. These range from possible significant increase in external development pressures beyond project scenario to reduction in effective governance within regulatory authorities resulting in increased lack of compliance. However, most of these risks are modest, with only one categorized as substantial and mechanisms to minimize them are outlined.
 9. With the exception of a few minor typos and the social science gap alluded to above (No.2), this project proposal is very well conceived and written and I see no significant **weaknesses or gaps**.

10. The only **controversial aspects** about the project that I can see are those to do with private sector freedom to use its land and they form the essence of the proposal. Support of the proposal would therefore result in a resolution of those potential controversies.
11. The design of the project does not introduce any incentives that could lead to over harvesting of resources. Instead there is a proposal to streamline the existing favorable but disjointed policy and legal framework as well as introducing incentives for conservation.
12. The project does not intend to have the private sector stakeholders lose revenue. Instead it would like to pilot win-win approaches to land use that will result in a net benefit to all stakeholders.
13. The idea of mainstreaming conservation into economic activities such as agriculture, commercial forestry, coal mining as well as urban development; activities that are generally regarded as detrimental to conservation is indeed **innovative** because many biodiversity projects focus on conservation areas and management agencies with little regard for the private and other sectors. If this project works out as expected, it would be a tremendous learning experience for conservation elsewhere in Africa and the rest of the world.
14. The proposed model is likely to be highly successful in South Africa because of the relatively advanced private sector, by continental standards, existing familiarity with certification systems in some sectors as well as the improving policy and legal framework.
15. The government of South Africa is a recipient of UNDP assistance and this particular project is eligible under the CBD COP guidelines including the Second Strategic Priority of the Biodiversity Focal Area: Mainstreaming Biodiversity in Production Landscapes and Sectors and eligible for GEF financing. Furthermore, the project, if funded, will fulfill and number of other CBD provisions, including Articles 6, 7, 8, 10, 11 and 12.

Identification of global environmental benefits and fit within the context of the goals of GEF

16. There is increasing concern globally about the rate at which grassland ecosystems are being converted. This is because they have been the main focus for agricultural development. At the same time, focus has mainly been on forest ecosystems yet grasslands also have tremendous conservation value. In the case of the South African grasslands biome, conservation would have substantial global benefits. This proposal highlights the uniqueness of the biome which at the same time forms habitat for a large number of species, a significant number of which is globally threatened to various extents. Factors such as endemism and restricted range among many species underlie the importance of this biome. Existing programmes will not ensure conservation of these species without the incremental costs being met by GEF. Such GEF support will not only ensure global biodiversity benefits but will enhance local livelihood benefits.
17. The proposal clearly outlines the global importance of the grassland biome biodiversity, in terms of ecosystems and key species, some of which are endemic or threatened to various degrees. The threats to this biodiversity are also well articulated. Although there are several other donor initiatives for the area, none are geared specifically focused towards conservation of this biodiversity by mainstreaming it into productive activities. Three of the priority areas for GEF intervention in the Second Strategic Priority of the Biodiversity Focal Area: *Mainstreaming Biodiversity in Production Landscapes and Sectors* are:

- Strengthening capacity at the Systemic level
- Establishing markets for environmental goods and services
- Improving production practice

This project proposes to tackle various aspects of those priority areas.

Regional Context

18. Although the project does not propose to develop any trans-boundary interventions, activities that would promote wetland conservation have a regional context in that the hydrological ecosystem services provided benefit several trans-boundary river basins.

Replicability of the project

19. The proponents have clearly outlined how various elements of the programme could be replicated beyond the programme scope at national level through numerous avenues including knowledge management systems, exchange programmes, lessons learning seminars, sharing of toolkits and an effective communication strategy. It is worth pointing out that the outcomes of this project would be of great interest to other countries in Africa and elsewhere, which are grappling with the challenge of conserving biodiversity in the face of increasing developmental needs. Any positive outcomes of this project would contribute to the biodiversity conservation agenda at continental and even global level.

Sustainability of the project

20. The project proposal recognizes **sustainability** as a key element for the long-term conservation objective. Environmental, institutional, financial and social sustainability are embedded in the proposal in view of the economic realities of the country. The strategy adopted is to ensure that regulatory agencies as well as production sector institutions in the areas of agriculture, forestry, urban development and coal mining integrate conservation in the course of running their businesses. Once that is achieved, conservation would have become integral to the running of those businesses. Despite the numerous challenges such as the requisite attitudinal change among many players, there is no better means of sustainability than this.

The table below shows some of the incentives that will be made available to different sectors to promote sustainability (it is suggested that such a table be included in the project document for easy reference). Such incentives are meant to promote behavioral change within private sector enterprises without necessarily jeopardizing profitability. Once those incentives become widely known and applied, they will ensure continued conservation of key areas of the grassland biome. The forestry and coal mining have already had a head start over the other sectors in terms of their responsiveness to environmental issues.

Agriculture	Forestry	Urban Development	Coal Mining
Certification schemes e.g. certified red meat	Improved FSC certification system and industry standards	Biodiversity offsets e.g. urban greenspace offsets	Biodiversity offsets e.g. wetlands Mitigation

			Banking
Rates rebates for stewardship programs	Tax exemption on “conservation” land		Tax exemption on “conservation” land
	Incentives associated with the stream flow reduction system		

Another piece of evidence for sustainability is the considerable amount of resources that have been pledged by various arms of the South African government, the private sector as well as NGOs. This shows serious commitment to conservation mainstreaming.

Secondary Issues

Linkage to other focal areas

21. The programme has been carefully designed to ensure that there is no conflict with other GEF Focal areas.
22. Outcomes such as No.1 which aims at deepening the enabling policy and regulatory framework, No.2 which aims at mainstreaming grassland biodiversity conservation into agriculture, 3 which focuses on forestry and 5 which addresses coal mining would certainly address the cross-cutting land degradation aspects. Any policy and legal reviews would not ignore the need to reduce land degradation.

Linkage to other programmes and action plans at the regional or sub regional level

23. The proposal makes specific mention of the fact that “*The programme will contribute to meeting the objectives as set out in the UNDP Country Programme 2007-2010 for South Africa*”. It is also in line with the major development challenges identified in the United Nation’s common Country Assessment of development needs prepared by South Africa as well as the *Millennium Development Goals*.
24. There is clear evidence that the proposed project will link with other ongoing and planned GEF-funded activities which are focussing on other parts of the country and using different strategies to achieve their objectives. Great care has been taken to avoid duplication and enhance synergies.

Other beneficial or damaging environmental effects

25. The current and potential threats to biodiversity in the grassland biome as well the barriers to the conservation of this biodiversity are well articulated. The various interventions proposed that will lead to mainstreaming of biodiversity conservation into productive activities such as agriculture and forestry will not only maintain the key ecological services function of the biome but its direct consumptive and non-consumptive values. No damaging environmental effects are anticipated.

Degree of involvement of stakeholders in the project

26. The proponents, during the development of this project, involved a wide spectrum of stakeholders, through various means including face-to-face discussions and workshops; reflecting the diversity of productive activities that are conducted in the grassland biome. In this way, it was possible to establish who direct and indirect beneficiaries of the proposed programme are. Such consultations were necessary to enlist institutional support for the programme as well as lay the foundation for sustainability after the programme ends. Such **stakeholder involvement** is crucial to a project such as this that hopes to deal with such complex productive activities as agriculture and urban development. The proposal clearly outlines how the different stakeholders will participate and their specific roles. What I find missing is the grassroots CBOs or other community institutions. Isn't there any role for them? The larger NGOs may be assumed to represent some of the community interests but this is not always the case. One could argue that the nature of the programme is such that stakeholder involvement is at a higher level but experience has shown that it is always productive to involve, in some way, lower level institutions; even for information sharing!

Capacity building aspects

27. This project is about improving the policy and legal framework to enable it facilitate action on the ground. It is also about removing barriers to biodiversity conservation such as market failure, systemic and institutional capacity weaknesses as well as management know-how within production sector institutions. This implies that **capacity building** is a core activity of this project. The intention is to build capacity at various levels from regulatory agencies and other national institutions to private sector players and NGOs. The programme strategy requires improved exchange of information, development of toolkits and demos, mainstreaming of conservation within sectors that have not previously considered it as their responsibility. Success of the programme will require attitudinal and behavioral change at individual and institutional levels. Capacity building targeted at different individuals and institutions is therefore necessary as proposed.

28. At local government and regulatory agency levels capacity for conservation planning and management will be enhanced while other government and private sector institutions will have some of their staff trained in various ways, to build their capacity to implement and sustain project activities. These will all form the core of the human resource that should continue the biodiversity conservation mainstreaming agenda even after programme closure.

Innovativeness of the project

29. Conservation of biodiversity has always been the preserve of biologists and ecologists. However, analysis of trends in biodiversity loss suggests that its conservation needs to involve more than the "traditional" stakeholders because most of the losses are caused by interests beyond the control of those stakeholders; especially economic interests. Much has been written about the need to involve a broad spectrum of stakeholders just as a lot is written about the importance of the use of economic instruments and other incentive measures to enhance conservation. However there are few actual cases on the ground to demonstrate that these "new" approaches work. This project would therefore be breaking new ground in the country and indeed the continent in getting the private sector, driven by a profit motive, to recognize that conserving the natural resource base, particularly biodiversity, has long-term benefits for the sector and the rest of society. The approach of this project to involve as many stakeholders as possible, ranging from academia, local and national government, investors in the agricultural, forestry, coal mining and urban development sectors is indeed **innovative**.

STAP Comment	Clarification/ Response	Reference in Pro DOC
<p>The Grassland Biodiversity Profile and Spatial Biodiversity Priority Assessment that was undertaken during the preparation of this proposal also applied a rigorous analytical process to identify threats to the grassland biome. The proposal alludes to the high gamma diversity characteristic of the biome. Whereas this gives a measure of overall diversity within the region, it would be equally important to highlight Beta diversity, which essentially compares diversity between ecosystems. For example, it would be interesting to know how the 80 different vegetation types recognized relate to each other in terms of species composition. That may be useful in prioritizing areas for conservation.</p>	<p>Agreed. A table of the vegetation types and accompanying information has been added to Annex 11 of the Pro DOC. In addition four paragraphs have been added to the document giving an expanded explanation of the diversity and species turnover across the biome. The detailed spatial assessment took into account the vegetation types and the biodiversity targets set for each of these (based on species area curves).</p>	<p>Para 8, 11 to 13 Annex 11 – Vegetation types of the grasslands biome</p>
<p>The project proponents also discuss the socio-economic setting in which the proposed project will take place. However, it would have been more informative for the Social science issues regarding the black community and how it relates to the grassland ecosystem were more clearly elucidated. For example, it is not clear whether the 13% of the land surface currently occupied is wholly within the grassland biome and how much of this will be affected by the proposed reform programme targeting 30% of the land surface by 2014. This would highlight the need for capacity building within the black community. I am also not sure whether the “black community” is homogeneous in terms of culture and livelihood strategies. This often determines what interventions government or other agencies may undertake. With the exception of this reservation, there is sufficient ecological and technical information for a sound project.</p>	<p>Information on the diverse population groups found in South Africa, that was lacking, has been provided. More information on land ownership patterns and land reform is provided so as to address the questions regarding the 13% and 30%. Business in South Africa are required to comply with equity provisions underwritten in the Law. Companies, in the forest sector and coal mining industry as well as construction are increasing representation of previously disadvantaged groups in management, and negotiating finance equity deals with the Black community. The NGBP will work with industry associations that represent each sector more broadly, as well as black owned business specifically.</p>	<p>Para 19 and 20 Stakeholder Participation Plan</p>
<p>Is there room for including some sort of periodic award scheme for best performing private sector players, as an incentive for better performance? It could be a certificate of recognition, a trophy or something similar.</p>	<p>Yes, an awards system is used in other bioregional programme in SA and has important value in recognizing good practice.</p>	<p>Table 7 Incentive Framework</p>
<p>Elaborate the incentives that will be made available to trigger changes in production practices in each target sector.</p>	<p>A range of incentives have been specified divided into three categories – regulatory; optional and negotiable.</p>	<p>Table 7 Incentive Framework</p>

STAP Comment	Clarification/ Response	Reference in Pro DOC
<p>The proponents, during the development of this project, involved a wide spectrum of stakeholders, through various means including face to face discussions and workshops; reflecting the diversity of productive activities that are conducted in the grassland biome. In this way, it was possible to establish who direct and indirect beneficiaries of the proposed programme are. Such consultations were necessary to enlist institutional support for the programme as well as lay the foundation for sustainability after the programme ends. Such stakeholder involvement is crucial to a project such as this that hopes to deal with such complex productive activities as agriculture and urban development. The proposal clearly outlines how the different stakeholders will participate and their specific roles. What I find missing is the grassroots CBOs or other community institutions. Isn't there any role for them? The larger NGOs may be assumed to represent some of the community interests but this is not always the case. One could argue that the nature of the programme is such that stakeholder involvement is at a higher level but experience has shown that it is always productive to involve, in some way, lower level institutions; even for information sharing!</p>	<p>Agreed. The role of local stakeholders is important and it intended that local stakeholders will be fully engaged. Within three of the components – urban, forestry and agriculture – local stakeholders will be critical to the success of the local demonstrations. In the urban component protection of biodiversity refugia cannot occur without direct action by local civic organisations who are organised and keen to be involved. In the forestry component the work area dealing with support to develop an appropriate small grower certification mechanism will involve directly small grower organisations. In the agricultural component direct involvement of farmers is a pre-requisite for conservation stewardship. Local stakeholders will also be involved in the development and management of Wetland Mitigation Banks.</p>	<p>Para 116, 122, 126 Table 15 Stakeholders and their functions Table 17 Stakeholder roles per outcome</p>

ANNEX C: CONSULTANTS TO BE HIRED FOR THE PROJECT*

<i>Position Titles</i>	<i>\$/ person week</i>	<i>Estimated person weeks</i>	<i>Tasks to be performed**</i>
For Project Management			
Local			
Programme Manager	\$1750	240	To provide effective and efficient strategic leadership and management of the implementation of the Grasslands Programme, a multi-faceted and multi-stakeholder bioregional programme over six provinces over five years, with over 20 key partner institutions and a core budget of \$8.3 million operationalising the conservation and sustainable development strategy for the Grasslands Biome
Finance Manager	\$1217	240	To effectively manage the finances (\$8.3m donor funds and \$36m co-finance aspects) of the Grasslands Programme, ensuring full compliance with donor requirements and coordination, reporting and management of funds disbursed through fund agreements to sub-implementing agents
International			
For Technical Assistance			
Local			
Programme officer	\$940	240	To manage all donor compliance and reporting requirements, manage monitoring, reporting and knowledge management requirements for the grasslands programme, support the development of local level projects and identify sources of funding, undertake various research projects as required and represent the Grasslands Programme and stand in for PM as required
Communications Coordinator	\$1148	240	To manage and coordinate the communications, marketing and stakeholder and media relations function of the Grasslands Programme
Agriculture Coordinator	\$1217	240	To provide effective and efficient strategic leadership, management and coordination of the implementation of the agricultural component of the Grasslands Programme
Agriculture & Forestry Stewardship Officer - KZN Wildlife	\$940	160	To coordinate and implement conservation stewardship activities in provincial biodiversity priority sites in KZN, based in EKZNW
Agriculture & Forestry Stewardship Officer – MTPA	\$940	160	To coordinate and implement conservation stewardship activities in provincial biodiversity priority sites in both agricultural and forestry owned land in Mpumalanga, based at MTPA
Agriculture & Forestry Stewardship Officer - EC DEAET	\$940	160	To coordinate and implement conservation stewardship activities in provincial biodiversity priority sites in E Cape, based EC DEAET

Forestry coordinator	\$1670	240	To provide effective and efficient strategic leadership, management and coordination of the implementation of the forestry component of the Grasslands Programme, hosted by Forestry South Africa
Urban coordinator	\$1148	240	To provide effective and efficient strategic leadership, management and coordination of the implementation of the urban component of the Grasslands Programme within the Gauteng province
International			

* Note: This information is extracted from the Total Budget and Work Plan in the Project Document. Further information for clarity, breakdown and rationale of rates is provided in the TBWP.

**Note: Further details on the requirements and/or Terms of Reference for each consultant are provided in the Total Budget and Work Plan annexed to the Project Document

ANNEX D: STATUS OF IMPLEMENTATION OF PROJECT PREPARATION ACTIVITIES AND THE USE OF FUNDS

A. EXPLAIN IF THE PPG OBJECTIVE HAS BEEN ACHIEVED THROUGH THE PPG ACTIVITIES UNDERTAKEN.

1. The project team successfully managed to prepare the FSP project proposal in a limited timeframe and with a restricted budget, in a rapidly changing GEF environment.
2. The PDF process helped to build a solid institutional basis for the NGBP within the institutional environment for implementation resulting in the provision of US\$450 000 bridging finance from the South African Government to ensure that project implementation and delivery is able to proceed until approval and receipt of long term funding.
3. The project is fully integrated into and forms part of the implementation of South Africa's National Biodiversity Strategy and Action Plan (NBSAP) and is one of 4 bioregional programmes being implemented to address national biodiversity priorities identified in the National Spatial Biodiversity Assessment (NSBA).
4. A Project Coordination Unit has been established in the South African National Biodiversity Institute (SANBI), with the appointment of a Programme Manager from April 2007. The recruitment of additional team members is underway – all prior to implementation commencing.
5. Co-finance of US\$36million has been secured for implementation with a ratio of 4.3 co-finance dollars to 1 donor dollar for implementation.
6. The project has secured commitment from implementing partners from national, provincial and local government, as well as private sector industry groups and non-governmental organizations for the implementation phase. Agreements have been drafted with 7 implementing partners.
7. The project was developed with the active participation of all major stakeholders, including representatives of the four production sectors within which implementation interventions are planned.
8. Several background studies were commissioned to further our understanding of the grasslands biome, the main economic drivers of biodiversity loss and opportunities for mainstreaming interventions. These studies significantly enhanced the existing body of knowledge on South Africa's grasslands biome.
9. Following the completion of these studies, the PDF phase resulted in the design of a highly innovative 5-year project, based on findings from this research. The project is firmly embedded in the main production sectors on the grasslands biome, including South Africa's agriculture, forestry, coal mining and urban development sectors. Champions within these sectors are committed to driving the implementation of pioneering interventions at site, market and macro levels. Detailed five year implementation plans, prepared with the involvement of stakeholders, have been designed and are ready for implementation once funding is received.
10. The following outputs were delivered during this PDF B phase:
 - The following background studies were undertaken and provided up to date research used to inform the design:
 - o Grassland biodiversity profile and spatial biodiversity priority assessment
 - o Grasslands comparative agricultural economic and trends assessment
 - o Identification of compatible land uses for maintaining biodiversity integrity
 - o Strategic review of the coal mining industry with regard to grassland biodiversity and identification of opportunities for the development of interventions with the coal mining industry to address biodiversity
 - o Monetary valuation of the grasslands in South Africa: making the case for the value of ecosystem goods and services in the grassland biome

- o Trade in water rights: an overview of water rights trading, with a particular emphasis on the potential use of trading to meet water biodiversity objectives
- o Strategic feasibility of green beef/lamb/game certification: feasibility assessment and identification of opportunities for programme interventions
- o Investigating mitigation banking as a mechanism for conserving aquatic biodiversity within the grassland biome of South Africa
- o Institutional mainstreaming effectiveness: a scorecard and guidelines to assess the effectiveness of mainstreaming biodiversity in institutions
- o A communications strategy, which included the design of a logo and corporate identity for the Grasslands Programme
 - Detailed 5 year implementation plans for:
 - o Securing priority biodiversity sites in the forestry sector
 - o Implementation of interventions in the urban component
 - o Detailed plan for the implementation of agricultural interventions within the Wakkerstroom/Luneburg demonstration area, Mpumalanga
 - o Intervention plan for the Free State River Ecosystem Project (the Koranna and Sepane Spruit in the Modder River Catchment Area)

11. An important part of the PDF was building awareness among policy makers and major players in the production sectors of the Grasslands Programme. Active task teams have been established in the agricultural, forestry and urban sectors. An active project steering committee has been established and a national Grasslands Partners Forums has been held. Numerous other sector workshops have also taken place to ensure stakeholder input into the design of interventions.

12. Project components, outputs and activities were designed in close participation with the GEF, UNDP, the DEAT and representatives of all production sectors.

B. DESCRIBE IF ANY FINDINGS THAT MIGHT AFFECT THE PROJECT DESIGN OR ANY CONCERNS ON PROJECT IMPLEMENTATION. NONE

C. PROVIDE DETAILED FUNDING AMOUNT OF THE PPG ACTIVITIES AND THEIR IMPLEMENTATION STATUS IN THE TABLE BELOW:

<i>Project Preparation Activities Approved</i>	<i>Implementation Status</i>	<i>GEF Amount (\$)</i>				<i>Co-financing (\$)</i>
		<i>Amount Approved</i>	<i>Amount Spent To-date</i>	<i>Amount Committed</i>	<i>Uncommitted Amount*</i>	
Local consultants	Completed	310,560	310,560	310,560	0	302,201
Travel	Completed	33,061	33,061	33,061	0	32,290
Communication equipment	Completed	6379	6579	6379	0	6,877
Total		350,000	350,000	350,000		341,368

* Uncommitted amount should be returned to the GEF Trust Fund. Please indicate expected date of refund transaction to Trustee.



PROJECT DOCUMENT

Republic of South Africa

United Nations Development Programme

Global Environment Facility

Proposal ID: 00045129, Project ID: 00053253, BU: ZAF10

National Grasslands Biodiversity Programme (NGBP) PIMS 2929

Brief Description: The Grasslands biome is the second largest biome in South Africa, occupying 29% of the country's land territory. The biome is a repository of globally significant biodiversity, constituting, in particular, a rich storehouse of floristic, avian and invertebrate diversity. However, in common with other temperate grasslands across the globe South Africa's grasslands are critically threatened. 30% of the area has already been irreversibly transformed by anthropogenic activities and only 2.8% is formally conserved in protected areas. These areas are not representative of species and habitat diversity across the biome. Most of the grasslands habitat presently lies in production landscapes allocated to livestock production, agriculture (cereals, some food crops and cash crops such as sugarcane), and afforestation with fast growing exotic tree species. South Africa's largest urban and industrial centre is located within the grasslands, namely the conurbation of Johannesburg and Pretoria, and these environs are a conservation hotspot. Production activities constitute the main threat to grasslands biodiversity. The high turnover of biodiversity across the grasslands landscape and the nature of threats imply that expansion of protected areas alone will not be sufficient to protect this heritage. There is an unmet need, instead, to mainstream biodiversity management into the production practices of the major production sectors providing the stimulus for land use change in the biome, and devise win-win strategies that conserve biodiversity while catering for development.

The NGBP will complement existing conservation endeavours in the biome by seeking to mainstream conservation objectives into the agriculture, forestry, urban development and coal mining sectors. The programme will lift a number of critical barriers to conservation management, namely, market failure, systemic and institutional capacity weaknesses and management know-how within production sector institutions. These barriers will be addressed through the development of new management tools geared to the needs of specific sectors that protect biodiversity as part of production processes, by internalising the non-pecuniary values of ecosystem services in production, and by strengthening capacity in production sector institutions to address conservation imperatives as part and parcel of economic development. The baseline situation is characterised by many uncoordinated efforts to manage grassland biodiversity. Although the enabling environment for 'mainstreaming' is largely in place, with a supportive policy and legal framework, there is a gap between policy and implementation. This provides an entry point for interventions. The NGBP is designed as a catalytic initiative, which will help coordinate existing conservation efforts and address critical management gaps, such that the effort comes to equal more than the sum of the parts.

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List of Acronyms

Agribusiness	Agricultural Business Chamber (ABC)
AgriSA	Agriculture South Africa
ARC	Agricultural Research Council
ASGISA	Accelerated and Sustained Growth Initiative in South Africa
CMA	Catchment Management Agency
CSIR	Centre for Scientific and Industrial Research
DALA	Mpumalanga Department of Agriculture and Land Administration
DEAT	Department of Environmental Affairs and Tourism
DLA	Department of Land Affairs
DoA	National Department of Agriculture
DME	Department of Minerals and Energy
DWAF	Department of Water Affairs and Forestry
EC DEAET	Eastern Cape Department of Economic Affairs Environment and Tourism
ECPB	Eastern Cape Parks Board
EIA	Environmental Impact Assessment
EWT	Endangered Wildlife Trust
FSA	Forestry South Africa
FSC	Forest Stewardship Council
FS DTEEA	Free State Department of Tourism Environment and Economic Affairs
GDACE	Gauteng Department of Agriculture, Conservation and Environment
GrainSA	Grain South Africa
GrassCo	Grassland Coordination Unit
GSC	Grassland Steering Committee
IAIA	International Association of Impact Assessors
IDP	Integrated Development Plan
JMOSS	Johannesburg Metro Open Space
LED	Local Economic Development
KZN	KwaZulu-Natal
MPTA	Mpumalanga Parks and Tourism Agency
NAFU	National African Farmers Union
NBSAP	National Biodiversity Strategy and Action Plan
NERPO	National Emerging Red Meat Producer's Organisation
NSBA	National Spatial Biodiversity Assessment
NW DACE	North West Department of Agriculture Conservation and Environment
NWPTB	North West Parks and Tourism Board
RPO	Red Meat Producers Organisation
SADC	Southern African Development Community
SAMIC	South African Meat Industry Company
SANBI	South African National Biodiversity Institute
SANParks	South African National Parks
SEA	Strategic Environmental Assessment
SLIMF	Small and Low Intensity Managed Forests
StatsSA	Statistics South Africa
STEP	Subtropical Thicket Ecosystem Planning Programme
TLU	Transvaal Landbou Unie (Transvaal Agricultural Union)
WESSA	Wildlife and Environmental Society of South Africa
WfW	Working for Water Programme
WfWetlands	Working for Wetlands Programme
Wool South Africa	National Wool Growers Association South Africa
WRC	Water Research Commission
W.R.S.A.	Wildlife Ranching South Africa
WWF-SA	World Wide Fund for Nature South Africa

Exchange Rate: US\$ 1= Rand (R) 6.75

SECTION 1: ELABORATION OF THE NARRATIVE

PART 1A: Situation Analysis

1.1 Environmental Context

1. The South African grasslands biome, which constitutes one of seven biomes in the country, straddles an area of 339 237 km² (about 29% of the country's land surface). It is the second largest biome in South Africa (see map in Annex II) (Reyers et al, 2005). The biome lies between 25° and 31° longitude and 25° to 33° latitude, and ranges from the interior of the Eastern Cape and KwaZulu-Natal provinces in the South and South East over the coastal escarpment and onto the central high plateau of South Africa into the provinces of Mpumalanga, Gauteng and Limpopo in its Northern extremity. The Western boundary occurs in the Northwest Province and further South, in the Free State. The altitude varies from sea level to 3,300 metres above sea level at the highest point, with a central plateau ranging from 1,200- 2,000 metres above sea level. Rainfall ranges from ca.400 to 1,200mm year, while the temperature gradient is also high (particularly in winter, when some areas can be snow bound while others remain frost free). Precipitation and temperatures vary according to altitude, topography and proximity to the coast.

2. The topography of the biome is characterized by flat to rolling terrain including in the central plateau, but includes dissected mountainous areas. The plateau is bounded to the South, East and West by a series of escarpments, leading to the coastal fringe in the East and South and to the Drakensburg Mountains in the West. The latter escarpment forms the dividing watershed between the Atlantic and Indian Oceans. Several of South Africa's major rivers flow through the biome. The major rivers draining into the Atlantic Ocean are the perennial Vaal, Caledon and Orange Rivers. Many rivers drain towards the Indian Ocean, including the Tugela, Pongla, and Kei. The most common soil group in the biome is the red-yellow-grey latosol plinthic catena. This is followed by combinations of black and red clays and solonetzic soils, freely drained latosols and black clay soils. These freely drained latosols and black clay soils are largely limited to the biome. Other soil groups include undifferentiated rocks and lithosols, weakly developed lime-poor soils on rock and undifferentiated swamps and alluvial plains.

1.2 Global significance of South Africa's grassland biodiversity

3. Grasslands cover about 40% of the earth's non ice-bound terrestrial surface and are home to over 1 billion people. Globally, grasslands house many important fauna and flora and occur in 15% of Centres of Plant Endemism, 11% of Endemic Bird Areas and 29% of ecoregions with outstanding biological distinctiveness (White et al, 2000). In addition to their biodiversity significance, grasslands provide essential ecosystem goods and services required to support human life and well being. These include forage for livestock, water and nutrient cycling services, soil stabilisation, carbon storage, energy supply, and recreation (Reyers et al, 2005).

4. Despite (and often because of) their economic value, temperate grasslands across the world are one of the biomes most impacted by anthropogenic activities. A recent study on the status of the world's ecosystems concluded that while most global biomes had lost 20 – 50% of their area to cropland conversion, temperate grasslands had lost more than 70% of their natural cover by 1950, with a further 15.4% lost since then (Millennium Ecosystem Assessment, 2005). These findings make the temperate grasslands one of the greatest global conservation priorities. The need for conservation action in these grasslands is also reflected by the threatened status of temperate grasslands in the Global 200 ecoregions assessment (Olson & Dinnerstein, 1998), as well as the report drawn up by the World Resources Institute in their Pilot Assessment of Global Ecosystems (White et al, 2000) where declines in grassland condition, biodiversity and ecosystem service delivery were highlighted as major concerns.

5. An additional concern around grasslands is that they remain one of the least conserved biomes in the world. Globally just over 7% of the grasslands are located within protected area estates. However, this figure

masks great differences between grasslands types and the temperate grasslands biomes are particularly under represented. In fact, temperate grasslands constitute the world's least conserved biomes: only 0.69% of its extant area is protected (Henwood, 1998).

6. South Africa is one of 17 megadiversity countries in the World, assessed on the strength of its floral diversity and endemism. South Africa's plant diversity is estimated at 23,420 species, representing 9% of the world total. The grasslands in South Africa are a very old, complex and slowly-evolved system of diverse plant communities. The area is exceptionally rich in floristic diversity and harbours a very high diversity of indigenous species, second only to the Cape Floristic Region (greater at 1000m² scale; O'Connor & Bredenkamp, 1997). The mean species richness of 82 species per 1000 m² is second only to the Renosterveld vegetation community. Most plant reproduction takes place vegetatively rather than through seed production, particularly among the bulbous plants and climax grasses. Only one in 6 plant species in the South African grassland community is in fact a grass. There are 34 grass taxa that are endemic to the Grassland biome. The remainder are bulbous plants that include arum lilies, orchids, red hot poker, aloes, watsonias, gladioli and at present 54 known species of ground orchids¹ (McAllister, 1998a). Among the herbs, high endemism occurs in the orchids (108 endemics) (Mucina & Rutherford, in press).
7. At regional scale, grasslands have a high alpha diversity and moderate gamma diversity; the Highveld region on its own has almost 4000 species and contains centres of diversity for many speciose genera. Species turnover in grasslands may be relatively high where topographical and environmental gradients are steep. Complete species turnover may occur for every 400m of change in elevation (Hoare 2003). These high rates of beta diversity permit coexistence of species at a landscape level that contributes to the overall richness of the biome.
8. Nearly half (15) of the 34 mammal species that are unique to South Africa are found in the grasslands biome. Several small mammals are restricted to the grasslands of South Africa, including some threatened species e.g. the Critically Endangered Rough-haired Golden Mole (*Chrysospalax villosus*); the Endangered Gunning's Golden Mole (*Neamblysomus gunningi*) and the Endangered Robust Golden Mole (*Amblysomus robustus*). The grasslands have been identified as an Endemic Bird Area — and ranked amongst the highest global conservation priorities for EBAs (Bibby et al, 1992, Stattersfield et al, 1998). The biome hosts 52 of the 122 Important Bird Areas in South Africa. The biome contains 10 of the 14 globally threatened bird species found in South Africa, including Botha's Lark (*Spizocorys fringillaris*), which is strictly endemic to the highveld grasslands, and Rudd's Lark (*Heteromirafr ruddi*), which is the only species classified as Critically Threatened in South Africa². Of the 195 reptile species endemic to South Africa, 42 (22%) are found in the grasslands biome (Branch, 1988). Of these, 20 (48%) species and a further 7 subspecies are endemic to the biome. The area is also important for the conservation of invertebrates. One-third (31) of the 107 threatened South African butterfly species occur in the grasslands, and half of these species are unique to the biome (McAllister, 1998a). Finally the area harbours important wetlands; of 17 Ramsar sites in the country, five are in the grasslands. These wetlands provide feeding and breeding sites for a range of migratory waterfowl, underscoring their importance.
9. Wetlands are also important because they provide a wide range of ecosystem services upon which people depend directly and indirectly. These include flood attenuation, water quality enhancement,

¹ Many of these plants are important to the global trade in cut flowers and garden flowers. While the trade consists mainly of hybridized varieties, the South African grasslands biome is important for the conservation of wild races.

² Its distribution appears to have become dangerously fragmented with some 85% of the remaining world population being centered around the town of Wakkerstroom (one of the NGBP demonstration-sites).

ground water re-charge, provisioning services such as water, food and fibre, cultural and recreational use values, and support for unique wetland dependent biodiversity. The hydrological ecosystem services mediated by wetlands are critical to the functioning of a number of trans-boundary river basins and the continued integrity of wetlands is thus vital to sound river management.

10. The vegetation of the biome is physiognomically monolithic and characterised by the strong dominance of hemicryptophytes of the Poaceae. The vegetation of the biome follows a rainfall gradient which generally corresponds to the relative contributions to the plant cover by 'sweet' and sour' grass.
11. In common with many of South Africa's other biomes, the biodiversity of the biome is not evenly distributed across the landscape. Presently 80 different vegetation types and 42 river ecosystem types are recognised (see Annex 11 Vegetation types of the grasslands biome). South Africa's grassland biome can be separated into two climatically-controlled types: temperate inland (including montane³ and highveld⁴ grasslands) and (sub) tropical along the coastal belt⁵. There are also azonal patches of grassland communities occurring outside the main biome boundaries, such as grassy shrublands on koppies (Mucina & Rutherford, in press). The Grassland biome in South Africa occurs mainly on the high central plateau (highveld – dominated by C4 grasses), the mountainous areas of the Drakensberg (dominated by C3 grasses), the inland areas of the eastern seaboard, and the central parts of the Eastern Cape. Five major groups can be distinguished: Drakensberg Grassland, Dry Highveld Grassland, Mesic Highveld Grassland, Sub-Escarpment Grassland, and Indian Ocean Coastal Belt.
12. The Grassland biome coincides with two major phytochoria (White 1983): Kalahari-Highveld Regional Transition Zone and Afroalpine Region. Five Centres of Plant Endemism have been identified within the borders of the Grassland Biome (Van Wk & Smith 2001). The current centres are linked to high altitudes or special substrates and often occur in the Savanna-Grassland ecotone. However, high concentrations of local or regional endemic plant species are also found elsewhere in the Grassland biome (e.g KwaZulu-Natal midlands) which may reveal the existence of other centres of plant endemism.
13. An assessment of conservation priorities in the grasslands biome (Grassland Biodiversity Spatial Priority Assessment 2005) identified 36,7% of the land area as being important for conservation. This is the area that will need to be afforded protection to fully represent biodiversity pattern and process. These lands are currently located in an admixture of production landscapes, with the dominant land uses being agriculture (cultivation and livestock husbandry), plantation forestry, and coal mining. The biome also includes a number of hotspots located in urban areas. For example in terrestrial and freshwater ecosystems, 2 of the vegetation types are critically endangered, 18 are listed as endangered and 27 are classed as vulnerable. 83% of the river ecosystems are ranked as threatened, with 48% critically endangered (see Annex 11 Vegetation types of the grasslands biome). In particular, the urban conurbation in Gauteng is dominated by vegetation types and ecosystems classified as threatened⁶. Thus

³Mountain or montane grasslands span the medium to high altitude areas of the Drakensberg Mountains in South Africa and Swaziland and the high altitude Lesotho Plateau (Bowie & Frank, 2001a). Mountain grasslands are found at elevations ranging between 1800m and 2500m, with rainfall ranging between 450mm in the southwest and 1100mm in the northeast (Bowie & Frank, 2001b).

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⁵ Coastal grasslands occur at sea level and receive more than 1000mm of rain/year (Low & Rebelo, 1998).

⁶ Highveld Grassland is a global eco-region in crisis, assigned to the category of "critical" (Hoekstra *et al.* 2005). Highveld Grassland is one of the two richest primary grasslands in the world, yet <1% is currently conserved. Since

in order to achieve representation of all unique biodiversity of this biome it is necessary to focus interventions in the various production sectors and across the different provinces.

1.3 Socio-economic context

14. The bulk of the biome occurs within six of South Africa's nine provinces, although fragments occur within all provinces. Table 1 below lists the provinces, the area of grasslands within each (Reyers et al, 2005) and some key socio-economic indicators (South Africa Country Study, 2005).

Table 1: Overlap between grasslands biome and provinces of South Africa

Province	Area (km ²)	% of biome	% of province	% of total GDP	Population density (people per km ²) in province
Free State	112027.05	33.02	86.30	5.5	21
Eastern Cape	71246.16	21.00	41.91	8.2	38
KwaZulu/Natal	54680.38	16.12	59.26	15.5	102
Mpumalanga	50729.93	14.95	63.86	7.2	39
North-West	32552.85	9.60	28.03	7.3	32
Gauteng	11358.33	3.35	67.07	33.9	520
Northern Cape	4188.60	1.23	1.16	2.0	2
Limpopo	2307.43	0.68	1.87	6.5	43
Western Cape	146.96	0.04	0.11	13.8	35

15. The biome is situated in a socio-economically complex environment, characterized by a great disparity in socio-economic conditions. The biome contains the economic heartland of the country, including the urban conurbation of Gauteng (constituted by the cities of Johannesburg, Pretoria, Soweto and Ekurhuleni) and important mining and plantation forestry estates, amongst others. As a consequence, it is greatly influenced by macro level economic and political developments in the country.

16. Due to the fact that South Africa has experienced jobless economic growth in recent years and has significant poverty, particularly in rural areas, the government has placed a priority on accelerating economic growth and providing employment. The country's Medium Term Expenditure Framework (MTEF) places a priority on strengthening investment, increasing capital spending on economic infrastructure and social services, and promoting tax relief to create a conducive environment for growth and job creation. The objective of the government is to halve poverty and unemployment by 2014. During the period 2005-09 the economic growth rate target is 4.5% and during 2010-14 the aim is to increase this to 6% of GDP. The Government has established an Accelerated Growth Initiative (ASGISA), with the aim of stimulating economic growth. An Expanded Public Works Programme aims to create 1 million short-term employment opportunities that will equip people with skills and work experience needed to participate in the formal economy. The intention is to spend, in the next five years, R15 billion in infrastructure, R4 billion in environment and R2 billion in the social sector. The Programme finances a number of important environment initiatives, such as Working for Water, Landcare, and Coastcare.

17. Increased government spending on development and private sector growth holds both threats and opportunities for biodiversity. As the emphasis is on increasing growth, this clearly brings pressure to bear on the natural resource base. Unfortunately, the economic value of biodiversity has not been adequately

Gauteng sits in a centre of distribution for certain flora types representative of this Grassland community, such as Bankenveld and eGoli Highveld vegetation types, the conservation values of the area are globally important.

expressed or understood within South Africa's macro-economic policies, plans and programmes. It has been estimated that government expenditure potentially affecting biodiversity conservation negatively exceeds that with positive implications for biodiversity conservation by approximately 5:1 (NBSAP Economic Stocktaking Report, 2004). To secure conservation values in the grasslands biome it will be critical to promote the concept that grasslands ecosystem services have a real monetary value. Economic valuation will assist in mainstreaming the idea that ecosystem goods and services from the grasslands are not 'free' goods.

18. Another key strategy is for the conservation community to engage with the development agenda through 'mainstreaming' activities, which seek to nest conservation strategies in development strategies for mutual benefit. A more direct involvement in ASGISA will be key to this. ASGISA identifies several aspects of concern to the biodiversity management agenda in the dual arenas of environmental governance and institutional performance. Especially relevant is the perceived drag on development arising from inadequate and imperfect environmental regulatory instruments and governance systems. This calls for systems to improve the efficacy of regulation, including through improving coordination between regulatory agencies. Other entry points for mainstreaming biodiversity management in ASGISA in the context of efforts to protect the grasslands biome include:

- development of the country's infrastructure in terms of spatial coverage;
- contributions to the broader National Industrial Policy framework, particularly regarding the location of new developments;
- contributions to the development of the wood, pulp and paper sector, to ensure ecological safeguards;
- contributions to education and skills development, with respect to biodiversity management, including through JIPSA (the Joint Initiative for Priority Skills Acquisition), which has as one of its priorities to ensure that there are sufficient skills for the implementation of the R372bn, three-year infrastructure development programme that lies at the heart of ASGISA, as well as contributing to addressing the skills problems affecting services delivery in local Governments; and
- the National Livestock Programme, which focuses on the North West province (partly in the grasslands biome).

19. South Africa's history of colonial occupation, dispossession and racial discrimination under apartheid resulted in great inequities in land distribution, with blacks being restricted to reserves constituting about 13% of the land surface, while the bulk of the land became the private property of white individuals. The state's land reform programme involves restitution⁷, redistribution⁸, and tenure reform⁹. The Government's stated target is to transfer 30% of the land to black ownership by 2014. This includes lands in the grasslands. There is a need to strengthen the capacity of these future landowners to manage their land and natural resources.

20. The landscapes occupied by grasslands make a significant contribution to the country's economy through agriculture, forestry, mining, industrial activities and delivering essential ecosystem services. Agriculture contributes about 3.1% to the GDP and 10% of formal employment¹⁰. South Africa is a net

⁷ Land restitution aims to restore land or provide alternative compensation to those dispossessed as a result of racially discriminatory laws and practices since 1914.

⁸ The land redistribution programme aims to broaden access to land among the country's black majority, mainly for agricultural purposes.

⁹ Land tenure reform aims to secure the rights of people living under insecure arrangements on land owned by others, including the state (i.e. communal areas) and private owners.

¹⁰ Agriculture contributed 3.1% to the total Gross Domestic Product in 2003 (R35.6 billion) but its contribution via backward and forward linkages to the national economy is more substantial (Strategic Plan for the Department of

exporter of agricultural goods, with agriculture contributing on average 8% of total South African exports by value (South African Yearbook 2003/04). Commercial forestry contributes about 1% to the GDP and accounts for 1.4% of formal employment (Genesis, 2005)¹¹. Coal mining contributes about 4% of the GDP and employs about 52 000 people on a permanent basis (Kirkman, 2006)¹².

21. South African grasslands play an essential role in mediating many ecosystem services. The biome is an important source of provisioning services, including for water, food, fibre and medicines. It is a major source of forage for livestock. The grasslands were the subject of one of the Sub Global Millennium Ecosystem Assessments, which aimed to assess the health of ecosystems and their services in the Gariep Basin. This Basin is largely composed of grasslands and is considered an important focus area for the provision of ecosystem services in southern Africa¹³. In particular, grasslands play a critical role in wetland functioning. The supply of water from the grassland catchments is critical to the Highveld power stations (McAllister, 1998b), agriculture industries, and for urban consumption.

22. The grasslands biome is also rich in cultural heritage sites containing three World Heritage Sites – the Cradle of Humankind World Heritage Site (site of some of the earliest hominid remains), the Vredefort Dome, and Drakensberg/Ukuhlamba with its important rock art.

23. South Africa’s major mountain catchments are situated within the grasslands biome. For this reason, a substantial amount of water runoff for South Africa is generated *within* the biome, while many rivers also flow *through* grasslands (such as the Orange, Mzimvubu, and Tugela). The biome plays a crucial role in the hydrological cycle, as runoff is stored as groundwater or in wetlands, and released gradually--so creating a steady water supply (Kotze and Morris,1994).

24. Most of the land in the grasslands biome is privately owned (>80%). Table 2 below presents the current situation of land use in grasslands based on the 1996 national land cover data (Reyers, 2005).

Table 2: Land uses in grasslands biome

Land Use in the Grasslands	Km² (% of grassland)
Cultivated areas (agriculture)	75,833 (22.1%)
Forest plantations	9,932 (3%)
Mines and quarries	933 (0.3%)
Degraded lands	22,041 (6.4%)
Urban and industrial areas	5,843 (1.7%)

Agriculture, 2005). Agriculture employs about 940,000 farm workers in the formal commercial sector. The smallholder sector supports a further 1.3 million households.

¹¹ The forestry industry contributes an estimated R12.2bn to GDP and employs an estimated 170,025 permanent, contract, and informal workers of which a large proportion are low-skilled and concentrated in rural areas with high unemployment. The industry contributed to the income of rural households through at least 31,500 small growers and about 7,875 small grower employees, providing a livelihood to between 490,000 and 560,000 South Africans. The industry is a net exporter, ranking among the top exporting industries in the country.

¹² Coal is currently the second largest earner of foreign exchange in South Africa and contributes 4% of the GDP. The sector is important for employment, providing 50,832 jobs in 2004. Research by COALTECH indicates that each coal mine employee results in support for 34 people in related upstream and downstream industries and in support systems such as education, commerce, and community infrastructure (Kirkman, 2006).

¹³ The Gariep Basin is subjected to considerable human pressure due to urbanization, industrial, and mining developments. It forms the focus of dry-land cereal production on the subcontinent. The Basin contains some 60% of the South African population, produces 70% of the national cereal crops, and contains 80% of the regional industrial activity. In some of the villages, 80% of the people are unemployed and depend largely on ecosystem resources for their livelihoods.

Land Use in the Grasslands	Km² (% of grassland)
Waterbodies	1,600 (0.5%)
Natural land cover (including rangeland)	217,850 (63.2%)
Protected areas (private, national, provincial)	9,451 (2.8%)

1.4 Production Sector Profiles

25. The main economic sectors operating in the grasslands biome include rangeland and cultivated agriculture, forestry, and mining (particularly coal). In addition, the hub of South Africa's urban economy is based within the biome. This section provides a profile on these four sectors.

1.4.1 Agriculture

26. South Africa has a dual agricultural economy with a well-developed commercial sector and a subsistence sector in the communal areas (formerly the homelands). At a national level, some 81% of land is dedicated to agriculture, of which approximately 83% is used for grazing and the balance (17%) for cropping. About 13% of South Africa's total area is arable, with 22% of this area comprising high-potential arable land (Strategic Plan for the Department of Agriculture, 2005). Ninety percent of this high-potential land is in Mpumalanga and KwaZulu-Natal (partially in the grasslands biome). Agriculture uses about 50% of South Africa's water and water availability is its most important limiting factor (South Africa Yearbook 2003/04 Chapter 4). The fact that the country has a limited natural resource base for agriculture means that there is limited potential for horizontal expansion in crop and horticultural production, which is a limiting factor to grasslands conversion.

27. A comparative agricultural economics and trend assessment has been undertaken for the main commercial crops and rangeland in the grasslands as part of the programme preparation process. It provides an agricultural profile of the grasslands biome, comparative economic information on agricultural enterprises, and identifies key economic drivers that could result in future habitat transformation. The assessment had a number of interesting findings. The extent of commercial farms in the grasslands biome is 32.44 million hectares. The total amount of land commercially cropped has declined from 18.8% in 1993 to 17% in 2002 (the last year for which accurate census information is available). During the same period the market value of total biome farm output increased from R11.2 billion to R58.4 billion, or R31 billion value in real terms (i.e. the market value discounted by the annual rate of inflation). This increase is the result of increasing production efficiency coupled with above average yields and prices during the period under review (Murray, 2005).

28. There has been a 23% decline in the number of commercial farming units in the grasslands between 1993 and 2002 (32 981 farming units in 1993 to 25 478 in 2002). This follows the trend throughout South Africa where there was a 21% decline between 1993 and 2002. The main reasons for this trend are that: (i) technological change has made it possible for farmers to extend their operational reach to a greater area per farming enterprise, (ii) the risk factor inherent in agriculture, and (iii) as the economy grows and diversifies the returns to agriculture relative to other economic options tends to decline. It is generally accepted amongst economists that this trend will continue.

29. The leading economic performers in terms of cultivation in the biome are maize (49% of commercially cropped land in the biome), sugar cane, groundnuts, soya beans, and sunflowers¹⁴. The extent of land

¹⁴ Maize is the largest locally produced field crop, with an average production of 9.1 million metric tons per year. It is the most important source of carbohydrates in SADC for human and animal consumption and the surplus is exported to neighbouring countries. South Africa is the world's 12th largest producer of sugarcane, producing about 2.1 million mt per season, of which about 50% is exported. It is the world's 11th largest producer of sunflower seeds, producing

dedicated to maize crops is expected to decline over the next 5 years (by as much as 350,000ha), but this area is likely to be substituted by other crops. Sugar cane (4.9% of commercially cropped land in the biome) shows the highest growth in terms of area cultivated and this trend is expected to continue. The crop is grown almost entirely in the coastal grasslands. Vegetable farming is small (1.8% of commercially cropped land in the biome) but attractive due to short-term financial returns. However growth in the horticultural industry is limited by water scarcity.

30. Virtually the entire grassland area that is not cultivated is used as rangeland – either for sheep or for cattle. The biome contains up to 6.4 million cattle (50% of South Africa's beef cattle) and 13 million sheep (58% of South Africa's sheep flock)¹⁵. This is high-quality stock farming land in a nation where more than half the agricultural land is classified as 'marginal'. Many farmers are mixed farmers and as the financial prospects for maize decline, more livestock farming tends to occur. However, in general livestock is much less profitable than cropping in terms of profit per unit area. Almost 60% of cattle in South Africa are finished for slaughter in sophisticated feedlots to produce animals which are well-fleshed, lean and of good conformation. The other 40% of South African cattle are raised on natural pastureland with the final objective to produce healthy, high grade beef. The South African red meat industry boasts facilities of a high standard to support the industry from farm to retail, including suppliers of animal health products, modern abattoirs, and world-renowned research and development institutes.

31. The commercial game ranching industry has shown extraordinary growth during the past 40 years. The sale of game has shown substantial growth in the last decade from 8,292 animals sold in 1991 (worth R9 million) to 20,022 animals sold in 2002 (worth R105 million) (Scriven & Eloff, 2003). Excluding national and provincial reserves, the area surrounded by game fences increased by 2.5 per cent a year, or by 300,000 hectares each year during both 1998 and 1999. There are now about 9,000 commercial game-fenced farms in South Africa, covering an area of more than 17 million hectares. This excludes the approximately 15,000 other farms that also carry game in sufficient numbers to be economically exploited. By far the majority of game farmers are former cattle farmers (Standard Bank AgriReview, 2000). There is a perception that the increase in game farms is taking agricultural land out of production, but this is not the case, as game is kept for both tourism and meat production. There is an increasing domestic market for game meat and it is bought in South Africa supermarkets at prices cheaper than mutton. A selling factor is that some cultures traditionally favour game meat above beef because it is seen as being healthy due to its low fat content.

32. Game production, where the game is within its natural range, is seen as an optimal form of production for grasslands because where game is within its natural range, the grasslands have evolved with these pressures. Where game is from outside its natural range, there is little difference from a biodiversity impact perspective between game and cattle. Sustainable game farming could become one of the most conservation-compatible land uses in the South African grasslands if sound management practices are adhered to and if the game farming production units are of sufficient size to be sustainable.

33. Key drivers of agricultural change are expected to include: political transformation; economic changes driven by exchange rates and interest rates; global warming and climate change; food production in neighbouring countries (if this declines South Africa will increase production to meet demand); biomass fuel production; and the economic outlook for specific agricultural enterprises.

965,000 mt in 2002. Of the cereal, tuber, and root crops, sunflower seeds generated the highest income (59.8%), followed by maize for grain (15.4%) and sugarcane (11.6%) in 2000 (South Africa Yearbook 2003/04, Chapter 4).

¹⁵ South Africa produces 85% of its meat requirements and imports the remaining 15% from Namibia, Botswana, Swaziland, Australia, New Zealand and European countries (South Africa Yearbook 2003/04, Chapter 4). In 1999 – 2000 the income from the sale of livestock and poultry (including game) was R24 billion (STATSA, 2002). All the major continental breeds such as Angus, Simmentaler and Sussex are well-represented and adapted in the South African cattle herds. Local breeds such as the Bonsmara were specially developed for South African conditions.

1.4.2 Forestry

34. The biome's plantation forest industry (based on afforestation by fast growing *Pinus*, *Eucalyptus* and *Acacia* wattle species) makes an important contribution to the national economy. The value of forest product exports, which include paper products, solid wood and pulp, has grown significantly over the past decade, from R2.3 billion in 1992 to R11.2 billion in 2002, a real growth of 129%. The industry's international competitive advantage is that the plantations have high yields (two to three times more productive than natural forests of the same species) and that 80% is certified by the Forest Stewardship Council (FSC) making it possible to tap into the increased demand for certified products.
35. An estimated 991,900 hectares of land is committed to plantation forestry in the grasslands (Murray, 2005)¹⁶. This amounts to 18% of commercially cropped/planted land within the biome, making it the second largest commercial land use after maize (*ibid*). Most plantations are in the high rainfall, high runoff producing catchments. Many of these plantations were established prior to 1972, when the first controlling legislation on the industry (an Afforestation Permit System) was introduced. This was based purely on the impact of plantations on hydrological functions. Certain catchments were subsequently deemed as stressed and closed to further afforestation. A major new development in the North Eastern Cape saw 34,000 hectares of grassland planted between 1989 and 1997 (Forsyth et al, 1997).
36. Government policies in South Africa since 1994 have introduced changes to the way forests are managed so as to achieve certain national goals. A key element of this redefinition is the privatisation of publicly owned commercial forestry operations – not through outright sale but using long-term leases, and induction of a new licensing system. Another element has been increased support for outgrower schemes allowing smallholders to grow trees with support from companies who later buy the product for pulp. Commercial afforestation is now a declared stream flow reduction activity in terms of the National Water Act 36 of 1998 and requires licensing. The rate of afforestation has slowed, owing to restrictions in water stressed catchments, to biodiversity constraints implemented through the National Environment Management Act 107 of 1998 (NEMA), the industry's self-imposed environmental management objectives, and the economic cost-benefit calculus, in terms of soils and yields. New forestry is regulated through an inter-departmental License Assessment Advisory Committee and this has resulted in more onerous licensing processes. There has also been significant public pressure. Riparian zones within long established plantations are being cleared in line with Government Wetland Delineation Guidelines, a policy that was developed in collaboration with the forestry industry. This is expected to result in the clearance of 60 000ha of plantations over the next five to ten years.

1.4.3 Urban Economy: Gauteng

37. Despite its small geographic extent, Gauteng is the most urbanised province in South Africa, home to approximately 8.8 million people or 20% of South Africa's population, with the number of households growing at 6.7% per year (DACE, 2004). Gauteng is the economic powerhouse of South Africa and plays an instrumental role in driving economic growth for both the region and the African continent. Gauteng's economy, underpinned by the industrial, manufacturing and services sectors, grew at an average of 3.3% per year from 1994 to 2003, above the national average of 2.7%. Its contribution to the Gross Domestic Product (GDP) grew from 32.6% in 1995 to 33.9% in 2002.
38. Gauteng's economy is diverse, ranging from a high-tech manufacturing and industrial sector, a growing services sector and a thriving informal sector (DACE, 2004). Manufacturing (20,5%), trade (14%) and financial services sectors account for approximately 60% of the value added in Gauteng and 52% of South Africa's value added (GEDA, 2006). Other sectors contributing to the provincial and national value-added

¹⁶ The land area in South Africa currently under plantation forestry is in the order of 1.35 million hectares.

include transport and communications (with the strongest growth rate of 5.8%), construction, community and social services, electricity, gas and water. Sectors predicted to have growth rates in excess of the average include the transport and communication sectors (6, 7%) and the financial service sectors (5, 8%). Construction is expected to show the most dramatic increase in growth over the next five years. The province absorbs over 50% of the national formal labour force (Statistics SA, 2005). As a result, Gauteng has a huge ecological imprint beyond its legislative boundaries on the biome as a whole. The province is also home to the policy- and decision-makers whose strategies determine the nature of development in the grasslands, and as a consequence their fate.

39. Gauteng is launching a 'Global City Strategy', set to encourage investment, tourism and business and to increase the province's economic growth to 8% by 2014. In terms of this strategy, Gauteng is projected to be the 12th largest 'global city region' in the world, with 14.6 million people (South African Cities Network, 2004). The nature of the growth envisaged in this strategy will determine the ability of the grasslands biome and the ecosystems services it provides, to support the Gauteng mega-city in 2014. One of the biggest challenges to realising the targets in the strategy is the current pattern of urban sprawl and low density development, which increases the costs of transport and infrastructure. A recent report on South Africa's cities found that the three large metropolitan councils in Gauteng– Johannesburg, Ekurhuleni, and Tshwane (Pretoria) – together with Municipalities of Mogale City to the west and Emfuleni (Vereeniging-Vanderbijlpark) to the south constitute a virtual continuous urban extent (South African Cities Network, 2004). The three metropolitan councils of Johannesburg, Mogale City and Ekurhuleni covers the same area as Greater London, which has a density of 8 000 people/km², compared to 2 000 people/km² in Greater Johannesburg (Fife, 2006).

1.4.4 Coal Mining

40. South Africa is one of the top five countries in the world in terms of coal production, coal consumption and coal exports. Most of the coal produced is consumed locally as 92% of South Africa's electricity is produced by coal powered generation plants. Export coal comprises 27% of sector volume and 51% of total income. Demand for coal is increasing locally due to demand for electricity and also internationally, particularly in Asia. South Africa has the fifth largest coal reserve (48.8 billion tons or 10.2%) in the world. As oil and natural gas reserves decline, coal will become more strategically important as it is estimated that global coal reserves can last at least 190 years if efficiencies in mining and utilisation can be improved (Kirkman, 2006).

41. Coal mining is South Africa's second biggest mining sector after gold, and without it SA's rapid industrialization would not have been possible. South Africa currently operates the only commercial scale coal liquefaction process in the world and supplies about one third of its liquid fuel requirements in this manner from coal. Coal is currently the second largest earner of foreign exchange in SA and contributes 4% of the GDP. The sector is important for employment, providing 50 832 jobs in 2004. Research by COALTECH indicates that each coal mine employee results in support for 34 people in related upstream and downstream industries and in support systems such as education, commerce and community infrastructure (Kirkman, 2006).

42. The profitability of mines and mining companies exporting coal is linked to the strength of the Rand, rising input costs (such as labour) and logistical constraints. The long term economic outlook for the coal industry is sound (Kirkman, 2006). Mining companies own a lot more land than just that which is mined, with agriculture being the dominant form of land use on such land. This non-mined land owned by mining companies is thus not included as "mining" in Table 2 which shows the extent of various land uses in the grasslands biome. The major coal deposits being used in South Africa are found in the Ecca Group, with the bulk currently being exploited falling within the grasslands biome. This activity is particularly intensive in the Mpumalanga Highveld area because the majority of the country's electricity is produced here. Power stations in this area that were decommissioned in the 1980s and early 1990s are

being rapidly re-commissioned because of increased demand for electricity. As demand increases so will the extent of land taken for coal mining, given that the coal reserves in South Africa are extensive.

1.5 Policy and Institutional Context

1.5.1 Overarching Policy and Legislative Context

43. South Africa's planning framework is complex, multi-layered and historically has lacked essential integration. Different sectors and spheres of government all have legislative planning requirements that emphasise the importance of their sectoral plans. Provincial and municipal authorities responsible for planning and land development applications utilise different pre-1994 laws from the four provincial and homeland governments. What is common are the two key instruments - plans and schemes – that are used to direct and regulate development activities¹⁷.

44. The Constitution of South Africa provides for the right to a healthy environment and environmental protection while promoting justifiable economic and social development. The Constitution gives concurrent legislative competence to national and provincial governments for most functions relevant to biodiversity conservation with the exception of national parks, botanical gardens, and marine resources, the management of which rests with national government agencies. The national government has the primary responsibility for policy and law enactment, while responsibilities for policy implementation rest with statutory bodies, and with the provincial/local authorities. Provincial governments are empowered under section 104 of the Constitution to pass subsidiary legislation on certain matters, which include environmental management, subject to the confines of national legislation. Each province deals both with the inherited legislation that was in force prior to 1994, especially old provincial Nature Conservation Ordinances, as well as new legislation drawn up by government since 1994. A process is now underway in the different provinces to update and synergize legislation.

45. The National Environmental Management Biodiversity Act of 2004 (the Biodiversity Act) is the key legislation governing biodiversity management¹⁸. Government is busy with the process of further legal reform, developing required regulations and policies so that the Act can be effectively implemented. There are four interrelated processes presently underway that provide an important policy context for the Grasslands Programme. They are 1) the National Biodiversity Conservation Strategy and Action Plan (NBSAP), related National Biodiversity Framework and Bioregional Plans; 2) the listing of threatened ecosystems and species; 3) the listing of Invasive Alien Species; and 4) the promulgation of new Environmental Impact Assessment (EIA) Regulations in terms of the National Environmental Management Act 107 of 1998.

46. The Government has developed a National Biodiversity Conservation Strategy and Action Plan (NBSAP) for South Africa with assistance from GEF/UNDP. This was approved by Cabinet and released on

¹⁷ A *plan* is the instrument whereby an organ of state indicates its desired patterns of growth and development and matches its budget and regulatory powers to those patterns and a *scheme* is the instrument whereby an organ of state determines how land may be used and developed and also establishes prohibitions on certain types of land development and use. The ongoing challenge facing the planning system is to ensure that the objectives of the plan are able to translate efficiently and effectively into the controls and prescriptions of the scheme (Berrisford S. 2002), Rationalisation and Alignment of the Environmental Planning Framework, unpublished report for DEAT.

¹⁸ The Act builds on the White Paper on Conservation and Sustainable Use of South Africa's Biological Diversity (1997). A key objective is to expand conservation activities to encompass whole ecological landscapes, focusing on biomes, by seeking to "integrate conservation objectives into the productive sectors, strengthen land-use planning and monitoring functions, develop and support implementation of conservation models, establish new institutional and operational mechanisms, and establish new conservation partnerships bridging the public and private sectors".

27 July 2005. The NBSAP sets out a framework and five-year plan of action for the conservation and sustainable use of South Africa's biological diversity and the equitable sharing of benefits derived from this use. It contains a National Biodiversity Implementation Plan that sets out five strategic objectives to achieve the overall goal, which is to "conserve and manage terrestrial and aquatic biodiversity to ensure sustainable and equitable benefits to the people of South Africa, now and in the future". These strategic objectives are: 1) An enabling policy and legislative framework integrates biodiversity management objectives into the economy; 2) Enhanced institutional effectiveness and efficiency ensures good governance in the biodiversity sector; 3) Integrated terrestrial and aquatic management across the country minimizes the impact of threatening processes on biodiversity, enhances ecosystem services and improves social; and economic security; 4) Human development and well-being is enhanced through sustainable use of biological resources and equitable sharing of benefits; 5) A network of conservation areas conserves a representative sample of biodiversity and maintains key ecological processes across the landscape and seascape.

47. The grasslands biome has been identified as one of the spatial priorities for conservation in the country in the National Spatial Biodiversity Assessment (NSBA), which has been undertaken as part of the NBSAP.

48. The Biodiversity Act provides for the publication of a National Biodiversity Framework which is presently being finalised. The National Biodiversity Framework, will draw heavily from the NBSAP and the NSBA, and contains norms and standards for the development of Bioregional Plans. The Biodiversity Act provides for the establishment of such Plans that must then be taken into account by provincial governments when formulating their Environmental Management and Implementation Plans and local government's Integrated Development Plans¹⁹. Bioregional plans will provide spatial tools to guide land use planning and decision making undertaken by provincial and municipal government. They will be based on a systematic biodiversity conservation plan and published for a whole province, a district municipality or a group of local municipalities. They will contain a map with biodiversity features in different categories, descriptions of what the features are, and norms and guidelines on land use planning and management.

49. The Biodiversity Act provides for the listing in the government gazette of threatened ecosystems and the identification of threatening processes in those ecosystems that will trigger environmental impact assessments for large physical developments being planned in these areas.

50. Regulations have been drafted for Invasive Alien Species (IAS) as required by the Biodiversity Act, but are yet to be passed. There are two basic components to these draft proposals – firstly on prevention to minimize risk of further invasion, dealing with issues such as how to stop new species becoming invasive through control of imports and so on. Secondly, the regulations deal with the management and control of all invasive species (all taxa, not just plants). Local government and national Departments will be required to demonstrate how they are dealing with IAS and reflect these in their Integrated Development Plans or Environmental Management Plans. Provision is also made for innovations such as requiring a certificate of alien control before the sale or transfer of certain properties. The regulations will generate new mandates for different institutions to become competent authorities to implement the regulations. The need for capacity building within government and civil society bodies such as Fire Protection Organisations, Water User Associations, and Conservancies, will be significant.

51. The Government has issued new Environmental Impact Assessment (EIA) regulations, which came into effect on 1st July 2006. Mining-related regulations will come into effect on 1st April 2007. EIA approval is required before a development can occur. The existing EIA regulations have been in place since 1997 and the new regulations aim at streamlining assessment and approval processes. EIA requirements are triggered

¹⁹ Municipal Integrated Development Plans are the principal strategic instrument that informs all decisions regarding the planning, management and implementation of development in the municipalities' jurisdiction.

by certain listed activities²⁰. National and provincial government will list sensitive areas, such as threatened and protected ecosystems and critical catchments. These new regulations will provide an opportunity for the information from bioregional plans and listed threatened ecosystems to be linked into the EIA process, which should strengthen biodiversity conservation within production landscapes.

52. The Government has identified the need for coherent policies on fiscal instruments and incentives that promote sound environmental management and biodiversity stewardship. A series of tax anomalies and perverse incentives hampering private investment in biodiversity management have been identified. A national framework on environmental fiscal instruments, which has the potential to create a positive enabling environment for biodiversity, has been released by National Treasury for public comment. The *Draft Policy Paper: A Framework for Considering Market-Based Instruments to Support Environmental Fiscal Reform in South Africa* outlines the role that market-based instruments, specifically environmentally-related taxes and charges, could play in supporting sustainable development in South Africa, and outlines a framework for considering their potential application. The Paper focuses on the options for environmental fiscal reform and the policies and measures capable of contributing to realizing revenue goals and environmental objectives. The policy paper seeks to:

- Explore how environmentally-related taxes and charges could assist in progressing towards the achievement of environmental goals and objectives in a cost-effective and efficient manner
- Explore how environmentally-related taxes are able to contribute to revenue-raising requirements
- Provide a guiding framework and develop a process for considering the use and development of different market-based instruments
- Provide a consistent set of criteria for evaluating environmentally-related tax proposals.

53. The civil society sector has had some success in ensuring that the opportunity for incentives exists within key legislation – the Biodiversity Act, the Protected Areas Act and the Local Government Municipal Property Rates Act of 2004. The latter Act introduces on rural land – for the first time in South Africa – property rates that have a significant impact on all landowners. In the case where private landowners make a portion of their land available as a nature reserve under the Protected Areas Act, this land will be excluded from municipal rates (S 17 Local Government Municipal Property Rates Act No 6 of 2004). This means that the landowner will not have to pay rates on the portion of their property that is subject to a stewardship contract, provided no commercial or agricultural activity takes place on that land parcel. The owner will still be liable for rates on any improvements to the property. Regulations are presently being developed to codify procedures governing municipal exemptions and rebates.

54. The NGBP addresses national priorities, articulated in other policies and development strategies:

- National Water Act 36 of 1998 requires licensing for activities, such as forestry, that are declared stream flow reduction activities. New forestry is regulated through a Licence Assessment Advisory Committee comprising environment, water and agriculture departments. The Mountain Catchment Areas Act 63 of 1970 provides for the conservation, management, use and control of land situated in mountain catchments.
- The National Forest Act 84 of 1998 provides that natural forests must not be destroyed save in exceptional circumstances: a minimum area of each woodland type should be conserved, and forests

²⁰ The key change in the new regulations is that the trigger is a combination of sensitive areas identified upfront and a more nuanced list of activities. There are categories – those activities that have a low impact and can proceed without a full EIA; a list of areas where it is likely the impact will be sufficiently low and a full EIA is not needed as long as an Environmental Management Framework is in place; and a list of sensitive areas where a full EIA is needed.

must be developed and managed so as to, among others, conserve biological diversity, ecosystems and habitats²¹. In addition the NFA states that the principles (as expressed in section 3 (3)), must be considered and applied in a balanced way in the issuing of a license to use water for a stream flow reduction activity. Further, that in applying the principles of the NFA, an organ of State must recognize that the conservation of biological diversity within plantations should be promoted in a way which is consistent with the primary economic purpose for which the plantation was established.

- The National Veld and Forest Fire Act 1998 provides for the formation of fire protection associations by owners who wish to co-operate for the purpose of predicting, preventing, managing and extinguishing veld fires.

1.5.2 Institutional Context for Environment Management and Land Use Planning

55. The Department of Environment Affairs and Tourism (DEAT) is the primary custodian of the environment in South Africa. It is responsible for setting environmental policy and legislation, and for monitoring compliance with these policies. Responsibilities for policy implementation rests primarily with statutory bodies and provincial/local authorities. DEAT has policy, legislative and coordination responsibilities in the following areas: co-operative environment governance; environmental impact assessment; biodiversity and protected areas; brown environmental issues and international environmental conventions and agreements. In addition DEAT has exclusive competence for marine and coastal management with the Branch: Marine and Coastal Management being responsible for the promulgation, administration and enforcement of marine resource legislation. DEAT has five branches: Biodiversity and Conservation; Environmental Quality and Protection; Tourism; Marine and Coastal Management; and Chief Operating Officer that includes the poverty relief programmes and normal corporate and financial affairs matters.

56. The South African National Biodiversity Institute (SANBI) serves the South African government as the primary statutory institution devoted to the study, conservation, display and promotion of the country's indigenous biodiversity. SANBI was established in terms of section 10 (1) of the National Biodiversity Management: Biodiversity Act (Act No 10 of 2004) succeeding the National Botanical Institute, which with its predecessors has a history of more than a century of botanical exploration and research in South and Southern Africa. SANBI is a statutory body registered as a schedule 3A entity in terms of the Public Finance Management Act reporting through its Board to the Minister of Environmental Affairs and Tourism via the DEAT. SANBI advises and informs, scientifically, the DEAT with respect to the biodiversity elements of environment policy, and acts as its agent in the ways stipulated in its mandate. It is the coordinator and facilitator of bioregional programmes in South Africa. The Biodiversity Directorate is responsible for the coordination of bioregional programmes, including planning, monitoring and activity coordination.

57. The other key regulatory authorities that provincial and local government level that make decisions about the regulation of land development in terms of cross cutting planning laws that impact significantly on the grasslands are:

- Municipalities – rezoning, consent uses or subdivision applications or permission to develop or change the use of land in terms of the relevant provincial laws and plans such as the Integrated Development Plan as governed by the Municipal Systems Act 32 of 2000, Spatial Development Framework, Environmental Management Framework and biodiversity-specific plans;

²¹ It should be noted that the definition of a forest in the NFA includes plantation forests.

- Provincial and national departments responsible for the environment – Environmental Impact Assessment (EIA) applications and plans such as the Environmental Implementation and Management Plans as governed by the National Environmental Management Act 107 of 1998.

1.5.3 Institutional Context within the Production Sectors

Agriculture

58. Agriculture is organised into various commodity organisations, producer groups, cooperatives and provincial agricultural associations that are represented by the umbrella organisation AgriSA. There are a number of smaller industry associations such as the National African Farmers Union (NAFU). The Agricultural Business Chamber is the umbrella mouthpiece of agricultural producers' businesses and makes key interventions in the trade environment. Agribusiness members represent total assets of almost R30 billion and an annual agricultural business turnover of about R50 billion (South Africa Yearbook 2003/04, Chapter 4).

59. Commodity associations represent specific commodities and are key stakeholders with whom the grasslands initiative must engage. The South African Meat Industry Company (SAMIC) is the national representative company of the South Africa red meat industry, representing the supply chain from producers through feedlots and abattoirs to the consumer. The National Wool Growers' Association (Wool South Africa) provides production, advisory and training services to wool growers. It has a focus on the upliftment of emerging small-scale producers, mainly in the former homelands of the Eastern Cape. Wildlife Ranching South Africa (WRSA) is the official voice for the game industry. It represents game rangers, not the hunting industry, and has about 1 400 active individual members. Grain South Africa represents many of the crops of importance to the grasslands, namely maize, soybeans, sunflowers, groundnuts, wheat, barley, oats and sorghum. It was founded in 1999 by grain farmers to better represent their interests.

60. South Africa has historically enjoyed a strong agricultural research capability but there has been little collaborative research between environmentalists and agricultural production scientists and economists.

61. In terms of the Constitution, agriculture is a dual competency. The National Department of Agriculture is responsible for policy development, regulatory functions, communication and information services, and research. The Department is responsible for approving applications for cultivating virgin land and burning of veld as governed by the Conservation of Agricultural Resources Act 43 of 1983, and applications for sub-division in terms of the Subdivision of Agricultural Land Act 70 of 1970. Other key focus areas of the Department include agricultural trade and business development, agricultural production, and sustainable resource management. Research is usually contracted out, mainly to the Agricultural Research Council.

62. The Provincial Departments are responsible for providing extension support to farmers, and functions include farmer settlement and development, agricultural economics, technology research and development, sustainable resource management, veterinary services and agricultural training (Strategic Plan for the Department of Agriculture, 2005). Provincial Agricultural Departments are usually larger in terms of staff complements compared to the equivalent environmental departments.

Forestry

63. The commercial forestry sector is organised into Forestry South Africa with 2 500 members, 90% of all registered timber growers. It is organised into three separate and distinct entities, i.e. the large growers group, medium growers group and small growers group. The industry is dominated by less than ten big companies. The Forestry Industry has established its own Environmental Guidelines for Commercial Forestry Plantations that attests to its commitment to mitigate the environmental impacts of plantations through improved management practices,

64. The National Department of Water Affairs and Forestry is responsible for issuing water use license applications where an activity is defined as a stream flow reduction activity (such as forestry) as governed by the National Water Act 36 of 1998 and plans such as Water Resource Use Plans. These govern the construction of dams, or levees, river diversions, and developments that alter the banks of rivers, streams etc. The National Forest Act 84 of 1998 provides that forests must be developed and managed so as to, amongst others, conserve biological diversity, ecosystems and habitats. The system for regulating water is presently undergoing change from a permit system based to a licensing process. This process will include the establishment of catchment management agencies that will take over functions from existing regional offices of DWAF.

Urban economy

65. The key government institutions responsible for directing and regulating land development and use in Gauteng are the Gauteng Department of Agriculture, Conservation and Environment (GDACE), the three Metropolitan Councils of Johannesburg, Tshwane and Ekurhuleni and the eight Local Municipalities. GDACE is responsible for making decisions on Environmental Impact Assessment (EIA). The Tshwane Metropolitan Municipality was formed from the amalgamation of 13 local authorities and is home to 2.2 million people. It is a cross border municipality, as part of the city lies in the North West Province, and has an above average economic growth of 5.1%. The Ekurhuleni Metropolitan Municipality (EMM) is the industrial hub of South Africa with high levels of economic and industrial activity in the area that threaten biodiversity. The Johannesburg Metropolitan Municipality has jurisdiction over the City of Johannesburg and outlying suburbs.

66. Within Gauteng, the Gauteng Economic Development Association (GEDA) is a provincial investment promotion agency set up to attract investment and foster growth and development. The specific interests and activities within economic sectors are represented by a number of industry associations. These associations are key bodies through which economic sectors may be accessed and influenced. Of particular relevance in Gauteng, and to the sectors imprinting on the grasslands biome, are the following associations or chambers:

- International Association of Impact Assessment (South Africa)
- The South African Federation of Civil Engineering Contractors
- South African Association of Consulting Engineers
- Rail Road Association of South Africa
- South African Chamber of Business
- Chambers of Commerce and Industry South Africa
- National African Federated Chamber of Commerce and Industry
- Chamber of Mines South Africa

Coal mining

67. In keeping with world trends, the coal industry in South Africa has been characterized by several mergers, acquisitions and name changes over the past decade. The six main producers are BHP Billiton (Ingwe), Anglo Coal, Sasol Coal, Kumba Resources, Xstrata and Eyesizwe. ESKOM – the South African electricity utility—is the major buyer of coal locally and is in a unique position to influence the market and suppliers. SASOL is also relatively unique because most of its coal is used in-house for the production of fuel through liquefaction processes.

68. The National Department of Mining is responsible for approving applications for reconnaissance permits, prospecting rights and mining rights in terms of the Mineral and Petroleum Resources Act of 2002. The new Act outlines procedures that have to be followed when applying to prospect or to mine. No mining activity can commence without an: approved environmental management programme and a reconnaissance permission, prospecting right, permission to remove, mining right, mining permit, retention permit, technical co-operation permit, reconnaissance permit, exploration right or production right; and notifying and

consulting with the land owner or lawful occupier of the land in question. The outcome of the application process includes an Environment Management Plan Report (EMPR) that specifies how environmental issues will be dealt with. The mining related element of the new EIA regulations, which will come into effect in April 2007, will put in place a new system to better align the EIA and mining application processes. The less effective older legislation has created several legacy problems, where old mines have not been rehabilitated and have just been abandoned.

1.5.4 Institutional context within the Environmental Non Government Organisations (ENGOS)

69. There are a range of ENGOS active across the grasslands biome, principal amongst which are:

- The Botanical Society. The Society is an active membership based ENGO with a core Conservation Planning Unit staff complement. It does pioneering work in fields of direct relevance to the NGBP, including conservation stewardship, mining offsets, fiscal reform, and mainstreaming biodiversity into production sectors such as the wine and biodiversity initiative.
- WWF-SA leads the WWF SA Grassland Eco-region Program with the aim of securing protected areas; developing habitat webs which would enable commercial production but maximise habitat heterogeneity; and developing of partnerships and funding options for conservation. It has a range of projects throughout the grasslands biome of South Africa.
- The Endangered Wildlife Trust (EWT) is dedicated to conserving species and ecosystems in southern Africa. It has a range of specialist working groups operative across the grasslands biome including the Blue Swallow Working Group, the African Wattled Crane Programme, the Oribi Working Group, the South African Crane Working Group, the KwaZulu-Natal Biodiversity Programme, the Birds of Prey Working Group, and the Poison Working Group.
- The Wildlife and Environment Society of South Africa (WESSA) is a long standing membership based ENGO active across the grasslands biome. WESSA has a range of skills and experience to offer the NGBP, of particular relevance being their expertise in capacity building, awareness and education, and work with mainstreaming biodiversity planning into municipal planning systems.

PART 1B: Baseline Analysis

1.6 Threats to Grassland Biodiversity

1.6.1 Comparative impact of land uses on grassland biodiversity integrity

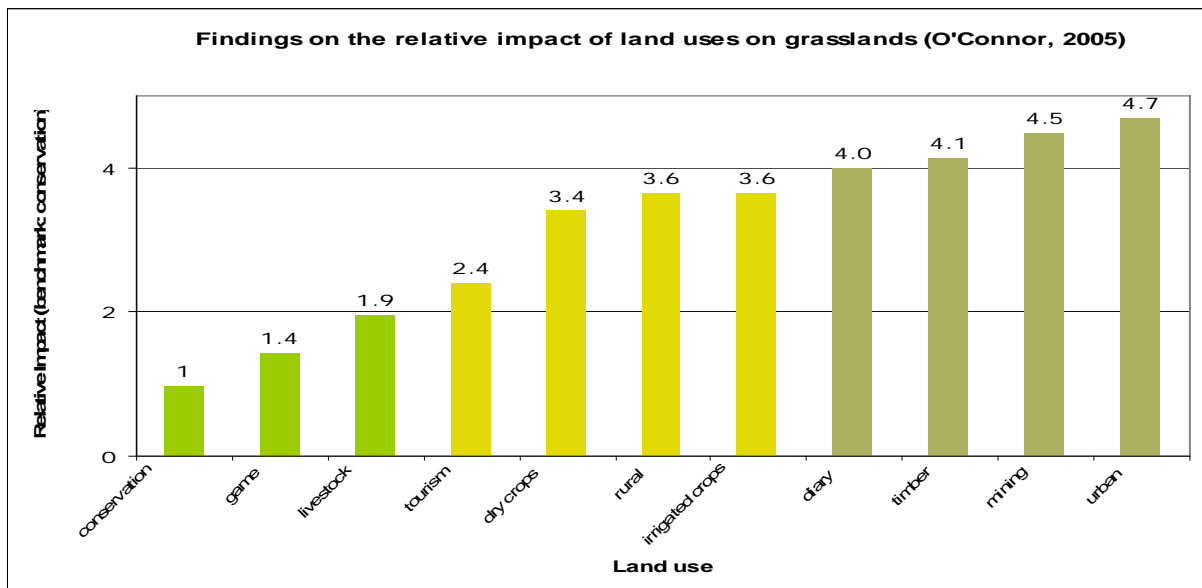
70. A Grassland Biodiversity Profile and Spatial Biodiversity Priority Assessment has been developed as part of the PDF B preparatory stage. This assessment provides up-to-date information on the grasslands biome including biome size, distribution of biodiversity, ecosystem services and the location of production activities, their associated impacts and conservation efforts. It identifies and integrates priority areas for terrestrial and river biodiversity, as well as ecosystem services for future conservation action in the biome. The assessment of terrestrial biodiversity was based on a refinement of the NSBA, and evaluated habitats, species and ecological processes. The study identified 2 Critically Endangered, 18 Endangered, 27 Vulnerable and 33 Least Threatened vegetation types in the grasslands. The assessment identified many priority areas for terrestrial biodiversity which cover an area of about 36.7% of the biome (Reyers et al, 2005). The assessment of rivers of the grasslands highlighted that only 9% of main rivers are intact, with 15% moderately modified and the rest transformed. Of the tributaries, 58% were classified as largely intact and the rest as modified.

71. An analysis of the relative impact of different production activities on the conservation status of the grasslands was also undertaken during the preparatory process. Land uses at a site level were scored against a set of biodiversity indicators to provide a comparative analysis of their ecological impact. The land uses

assessed were conservation (protected areas), livestock ranching, game farming, tourism, irrigated cropping, dairy farming, timber plantations, and urban settlement. The three primary indicators of biodiversity applied in the assessment were landscape composition (habitat, species, alien plants), landscape structure (transformation, fragmentation), and ecosystem functioning (fire and grazing regimes, biogeochemical processes, hydrological functioning, soil erosion and biotic processes). A total of 46 individual indicators were assessed across these primary indicators. The use of a large number of indicators should compensate for any deficiencies in scoring of individual indicators. The assessment used multi-criteria analysis (analytic hierarchy process²²) based on interviews with experts for each indicator. A total of about 50 experts were consulted.

72. The results are shown in the diagram below. Conclusions drawn from the findings include:

- Livestock ranching and game farming are the most compatible land uses
 - NGBP should focus resources on securing and extending this land use
 - Management is more critical than animal type
- Urban settlement is overwhelmingly negative
 - Contain and direct urban footprint to areas of limited value
 - Create biodiversity corridors and ensure appropriate regulation
- Mining, forestry plantations and dairy are negative
 - Contain and direct footprint to areas of limited value
 - Timber – mitigate impact through improved management of unplanted areas
- Dryland and irrigated cropping impact is severe
 - There are differences between crops, but management is a more important intervention than crop type



²² Analytic Hierarchy Process is a formal mathematical means of summarizing respondents' data into a single set of values that indicate the relative impact and rank order of the agents of influence under consideration (i.e. land use, grazing system, or crop type) (O'Connor, 2005).

1.6.2 Agriculture

73. About 65.2% of the grasslands biome comprises rangelands used for grazing by domestic livestock and game (usually involving the husbandry of native species, but in some cases this includes out-of-range species). Under appropriate conditions and management, this land use is considered to be sustainable and conducive to the maintenance of grassland biodiversity. Inappropriate management practices can, however, lead to habitat disturbance, with accompanying negative impacts on biodiversity. Inappropriate grazing management can take various forms, including over-stocking, maintenance of inappropriate stocking ratios between species, habitat trampling due to inappropriate location of watering facilities, and inappropriate application of fire as a management tool. The impacts of these practices usually result in reduced or changed vegetation composition and cover. Inappropriate stock watering systems can negatively impact streamflows into wetlands by impounding excessive amounts of water.

74. Cultivation poses a serious threat to grassland biodiversity and ecosystem integrity leading to direct habitat loss, fragmentation of habitats for plants and animals, and disruption of ecosystem function. Vast amounts of geophytic plant species are destroyed during the initial cultivation process, and this portion of biodiversity is usually permanently lost in the process. Hydrological processes are altered through changing the vegetation cover and structure, by physical drainage and water management and by changing runoff patterns. Crop farming is driven by economic considerations; when economic circumstances change, croplands are often abandoned, leaving a poor quality, depauperate form of grassland that is difficult to rehabilitate.

75. Although the impacts of cultivation on biodiversity are severe where it occurs, the threats to biodiversity in the grasslands biome as a whole are considered low to moderate. Economic impulses in the last decade have led to the contraction of cultivated area. A key implication from the comparative agricultural economics and trend assessment within the grasslands biome is that macro level pressure for agricultural expansion in the grasslands biome is not likely in the next five years. This means that it is possible to influence the location of future cropping, to ensure it takes place on previously utilized but now fallow lands, and accommodates biodiversity priorities. Threats are however evident at a more localized level, particularly from the expansion of sugar cane in coastal grasslands. Specific abatement measures are needed in these areas to address prospective impacts.

76. There is also a risk in the future that new threats will emerge with the promotion of new crops. The most significant of these are two types of green fuels from biomass – bio-diesel from vegetable oils and ethanol fuels. Of these, bio-diesel is the most economical to produce and is compatible with existing vehicle engines and commercial fuel distribution systems. In the light of escalating international oil prices, bio-diesel presents itself as an attractive renewable, domestically-produced liquid fuel option that can reduce dependence on foreign oil imports. If the possibilities of job creation and commercial opportunities for emerging enterprises are added to this, it becomes an attractive policy option. If the planting of land takes place on previously cultivated lands, then the impact on biodiversity will be negligible; but if it should take place on a large scale on natural habitat, the impact for biodiversity would be significant.

1.6.3 Forestry

77. New commercial timber plantations have significant negative on-site impacts on biodiversity because they result in direct habitat losses and changes in ecosystem dynamics. Plantations have been found to use between 500 and 1500 million m³/ha/annum more water than the vegetation replaced, reducing measurable streamflow by between 50mm – 150mm/annum, the actual amount being dependent on area, species and rainfall regime (Gush et al, 2002). Thus, the extent and location of new plantations is of key concern to the conservation agenda. The DWAF estimates that a realistic maximum new area of 200,000ha will be afforested over the next 20 years (2005-2025). However, the industry association Forestry South Africa expects that only half of this target will be realised. What is agreed is that the bulk of expansion is expected to occur in the Eastern Cape and KwaZulu-Natal provinces through small

grower schemes. The DWAF Strategic Environmental Assessment has identified significant tracts of land (353 000ha) as being available for new smallholder plantations from a biophysical and social perspective if the market expands and economic viability can be maintained.

78. Forestry companies, and in particular the big growers, own large tracts of land that are presently unplanted with trees. It is expected that a large percentage of this land will never be planted with timber for a variety of reasons, including the fact that the land is unsuitable for silviculture, stream flow reduction requirements, or conditions laid out in the development license. There are three threats facing this land. Firstly, the ecological integrity of these areas may be gradually undermined over time through habitat fragmentation, or because the areas are too small to maintain native species assemblages; and secondly these areas may become invaded by alien species, which outcompete grassland species. Thirdly, this land will soon become subject to the Local Government Property Rates Act which, once implemented, will tax this presently un-taxed land thereby causing the companies to incur new costs. The risk exists that companies may sell land that contains good quality grasslands rather than pay rates, resulting in land presently undeveloped coming onto the market for development, and biodiversity being lost.

1.6.4 Urbanization (Gauteng Province)

79. Within the grasslands biome, the moist grasslands and the Bushveld-Bankenveld vegetation types were ranked in South Africa's NBSA within the top three priority areas for action in terms of avoiding future pressure (Driver et al, 2004). Gauteng is a centre of distribution for the latter. Of South African's biodiversity, 443 endemic plant species are found within Gauteng, with 3 critically endangered, 8 endangered, 10 vulnerable and 19 listed as rare (NBSA, 2004). Gauteng also has 42 animal species of special concern within select taxa.

80. Urbanisation can lead to near complete transformation of grassland habitat, leaving only small isolated fragments, grossly disrupted ecosystem functioning in the form of dramatically perturbed fire and grazing regimes, biogeochemical processes, and hydrological functioning, and elevated soil erosion; extreme loss of habitat and species and an increased threat of invasive alien species (O'Connor, 2005). Cities have a high impact on available land, impacting on the grasslands, due to urban sprawl. Attempts to correct the imbalances of apartheid have often exacerbated the impact of the built environment on natural resources. For example, between 1996 and 2001 there was a net increase of 745 627 informal dwellings and 743 843 formal self-standing houses, all on new land on the periphery of the city (South African Cities Network, 2004). One of the most significant reasons for increased urban sprawl is the spread of gated estates in outlying green spaces catering for middle-rich income residents.

1.6.5 Coal Mining

81. The grasslands types contains a rich mineral wealth, including coal, gold, diamonds (alluvial and underground), platinum, and stone. Of these coal mining is the most significant mining sector in terms of spatial coverage. Coal is extracted either by underground mining or open-cast mining, with 40% of coal in South Africa being extracted by open-cast methods. Open-cast coal mining has a devastating impact on biodiversity because it has the effect of removing biodiversity values from the landscape permanently. However, its existing footprint in the Highveld Grasslands area is, relative to other land uses such as cropping and forestry plantations, small at about 40 000ha. Set against this is the fact that the vegetation types affected by open-cast mining on the Highveld are Moist Clay Highveld Grasslands, Moist Cool Highveld Grassland, Moist Sandy Highveld Grassland and North Eastern Mountain Grasslands, all of which have a low formal conservation status.

82. Coal mining usually occurs at the lowest point in any given locality (i.e. along drainage lines) because this is usually closest to the seam. Coal mining has a substantially greater impact than any other land use on hydrological functioning and a marginally greater impact on biogeochemical processes, owing to a catastrophic influence on carbon, and on biotic processes (harvestable goods). All forms of coal mining

inevitably result in acidification of water. The indirect or downstream impacts include acid rain and pollution (O'Connor, 2005).

83. The potential extent of future open-cast mining areas is unknown as no independent figures exist and the area that small companies may develop is unknown. The main companies have indicated that the areas they are considering are in the region of 40,000ha, with a large proportion of this expected to occur mainly on existing maize fields, where biodiversity has already been compromised. Mpumalanga province is in the process of finalizing its Biodiversity Conservation Plan. The assessment undertaken to prepare the Plan, which covers both terrestrial and aquatic biodiversity, identifies biodiversity priority areas harboring the highest proportion of irreplaceable, highly significant habitats. In time, this information will be able to be compared with present and future coal mining plans to assess and then manage impacts on a finer scale (Kirkman, 2006).

84. Worldwide, the coal mining industry has a negative reputation. All of the major mining houses active in South Africa are acutely aware of this liability, and have taken steps to improve the record of on-site environmental management. Most have adopted the 'triple bottom line' approach, where financial profitability is aligned with social and environmental considerations. There are a number of opportunities within this sector. Firstly there is a shift taking place in companies' approach to the environment, with biodiversity being seen as a critical component. However, companies are looking for leadership on what this means in practice. Secondly, in some instances there is still a gap between good biodiversity-related policies and implementation, and a biodiversity champion is needed to push the frontiers to their conclusion. Thirdly, the expected increase in smaller companies, with expected lower rates of environmental compliance, is a risk for both the biodiversity and big companies. Fourthly, mining companies own large tracts of land that are not mined. There is a trend to acquire land to stop complaints from farmers where underground mining impacts on such farmer's land (e.g. through subsidence). Mining companies may be open to options where land falling within biodiversity priority areas is legally secured for biodiversity conservation (e.g. contract nature reserve) if they are able to continue underground mining operations.

1.7 Baseline Course of Action

85. Under the baseline scenario, defined as the 'business-as-usual' situation, a number of activities will be implemented by government, the private sector and non-governmental institutions aimed at improving management of natural resources in the grasslands biome. These form an important base on which the NGBP is nested. Activities may be distinguished between those focused on protected areas, and those in production landscapes, involving the major production sectors and enterprises.

1.7.1 Protected Area Expansion

86. South Africa has a well-developed system of formal protected areas. These are classified in the South African National Spatial Biodiversity Assessment (NSBA, 2004) into three broad categories:

- (i) **Type 1** protected areas (equivalent to IUCN categories I, II and IV) including National Parks, Provincial Nature Reserves, Local Authority Nature Reserves and Forest Reserves, have strong legal protection and are primarily managed for the maintenance of biodiversity;
- (ii) **Type 2** protected areas (equivalent to IUCN categories III, IV, V and VI) including Wildlife Management Areas, Private Nature Reserves, National Heritage Sites, undeveloped State land (excluding Type 1 protected areas), Bird Sanctuaries, Botanical Gardens, Mountain Catchment Areas (excluding Type 1 protected areas), Protected Natural Environments, Coastal Conservation Areas and Indigenous State Forests (excluding Type 1 protected areas) have an intermediate level of legal protection and are primarily managed for sustainable use and development without compromising their ecological, landscape and cultural integrity;
- (iii) **Type 3** protected areas (equivalent to IUCN category VI), including Private Game Farms, Private Game Reserves (excluding Type 2 protected areas) and Conservancies (excluding Type 2 protected

areas), are often more informal protected areas with a moderate to low legal status and are primarily managed as productive enterprises.

87. The national public entity responsible for management of South Africa’s national protected area is the South Africa National Parks (SANParks). The provinces maintain statutory bodies such as Parks Boards or divisions within Departments responsible for the administration of provincial protected areas. These authorities are currently investing in the management of a small and highly fragmented protected area estate in the biome. There are currently 122 Type 1 conservation areas in the grasslands, making up 2.8% of the land area. These include 5 National Parks, 101 Provincial Reserves, 7 Local Authority Nature Reserves and 9 Nature Reserves. In addition, there are 70 Type 2 conservation areas, which collectively make up 0.8% of the biome and include 1 Bird Sanctuary, 7 Conservation Areas, 13 DWAF Forest Areas, 27 National Heritage Sites, 21 Private Nature Reserves and 1 State Land Area. There are, in addition 9 Game Farms all of which are Type 3 protected areas and make up 0.35% of the biome.

88. Some strategic expansions to the protected area estate are also planned. SANParks recognizes that grasslands are severely under-represented in the South Africa protected areas network. Plans are underway to create a Grasslands National Park. While this will expand the area in type 1 conservation hectares, this investment, coupled with that dedicated to the management of existing protected areas will by itself be insufficient to protect the biodiversity of the biome. This is because the biome is characterised by a high rate of biological turnover across its ecological landscape, meaning that many large areas will need to be protected. Furthermore, the protected area estate will not directly address the main causes of biodiversity loss emanating from the land use practices employed by the major production sectors in the grasslands. However, the further development of the protected area estate will complement efforts to mainstream biodiversity management into the production practices of these sectors, and if carefully designed, can serve as refugia for the recruitment of grassland species into surrounding landscapes.

1.7.2 Production Sector Interventions

89. A number of actions are planned within the main production sectors operating in the grasslands to improve the quality of environmental stewardship. Table 3 provides a synthesis of the main baseline activities for each of the four main production sectors and landscapes, namely agriculture, plantation forestry, the urban environment in the Gauteng conurbation and coal mining. Also provided is an analysis of activities designed to improve the enabling environment for biodiversity conservation in the biome, with an emphasis on production landscapes. These interventions are an important collective base on which the Programme is nested.

Table 3 Production Sector Baseline Programs

Category	Baseline Activity	Organisation	Gaps
Enabling Environment	EIA: institution of streamlined assessment and approval process and compliance monitoring.	DEAT	Need to strengthen cooperative governance structures to improve efficiency Need to integrate Bioregional Plans into EIA approval process, with definition of clear guidelines
	Mapping Tools: development of detailed maps at fine scale and meso scale documenting the spatial distribution of biodiversity	SANBI	Need to develop these for grasslands biome

Category	Baseline Activity	Organisation	Gaps
	Developing national framework on environmental fiscal instruments to provide incentives for biodiversity management	National Treasury	National framework on environmental fiscal instruments being developed does not adequately cater for biodiversity management but Treasury is willing to consider proposals. There is a need to pilot new schemes to test their efficacy before broader roll out.
	National resource accounts initiative Integrating data on environmental capital values into national accounts, to guide decision making This is a key instrument for making the case for the value of grasslands ecosystem services in line with the UN System of Integrated and Environmental Accounting	Statistics South Africa	Need for good economic assessments. Current data is fragmented and in some cases needs to be ground truthed.
	Environmental and land use planning Regulatory functions re EIA applications Responsible for developing biodiversity conservation plans and ensuring incorporation of them into other provincial sectoral plans and decision making processes	Provincial Departments responsible for environment (North West, Free State, E Cape, KZN, Mpumalanga, Limpopo, Gauteng)	Establishment of appropriate capacity for implementation of conservation plans Need for province wide systematic biodiversity conservation plans in North West, Free State and Limpopo Need for gazetted bioregional plans throughout the grasslands biome to strengthen backbone of planning apparatus Need for improved coordination and collaboration of efforts to reach cumulative impact in the grasslands biome
	Re-zonings, consent uses or subdivision applications or permission to develop or change the use of land in terms of relevant laws Implementation of planning instruments such as the Spatial Development Framework (SDF), and element of the Integrated development Plan (IDP) and Environmental Management Frameworks (EMF)	Local and District Municipalities	Capacity building needed within context of huge developmental needs Need for incorporation of biodiversity conservation objectives into municipal planning and decision making
	Graduate and post graduate studies Specific research programmes and projects within grasslands biome – ranges from rehabilitation to diversity studies including aspects such as veld management, fire management, genetics and the spread of invasive alien species	Research and tertiary education institutions (Universities, institutes such as ARC & CSIR)	Need to link research agenda undertaken by different disciplines, to ensure biodiversity management needs are considered.

Category	Baseline Activity	Organisation	Gaps
Agriculture	Responsible for policy development, regulatory functions regarding agricultural sector management, communication and information services and research. Key focus areas include farmer settlement and development, agricultural trade and business development, agricultural production and sustainable resource management. The LandCare programme aims to optimize land productivity and engender sustainable use of natural resources. It offers practical assistance to effect land conservation activities that are identified, implemented and monitored mainly by the farming community with a predominant focus on communal farming areas. Although the scale and impact of the programme is quite small, it operates at the farm level and thus offers an opportunity to engage with land users about how to farm in a biodiversity-friendly manner. LandCare initiatives have been expanded to include specific sub programmes in different focus areas such as WaterCare, VeldCare, Soilcare and Alien Invasive Plants.	DoA (national)	Biodiversity not adequately incorporated into agricultural policy, planning, guidelines and decision making Insufficient knowledge and experience in regulatory authority Awareness and appreciation by agricultural decision makers of value of grassland ecosystems is limited & mindset is production focused Agricultural research largely excludes biodiversity
	The Provincial Departments are responsible for agricultural support to farmers, and functions include farmer settlement and development, agricultural economics, technology research and development, sustainable resource management, veterinary services and agricultural training	Provincial DoA (in six provinces)	Incorporation of biodiversity in agricultural planning, guidelines and decision making limited Insufficient knowledge and experience in regulatory authority Fragmentation of expertise and lack of coordination between province and local government
	Represent agricultural interests of their members	Industry organisations – AgriSA, NAFU, TLU, Agribusiness	Incorporation of biodiversity in agricultural planning and decision making limited
	Represent agricultural interests of the grain sector Ongoing initiatives by industry to improve efficiency re water use, fertilizer use etc Some crop sectors use no tillage/minimum tillage practices Initiative for green certification of sugar cane	Commodity associations - GrainSA, Sugarcane Association etc	Limited information on biodiversity priority areas resulting in crop expansion in inappropriate areas Knowledge re best practice guidelines re cultivation practices and use of pesticides, fertilizers and herbicides needs to be developed
	Represent agricultural and economic interests of the red meat and game sectors	Commodity associations – RPO, NERPO, W.R.S.A.	Game industry still in process of organizing Need to develop biodiversity-compatible grazing management systems

Category	Baseline Activity	Organisation	Gaps
Forestry	Continued regulatory functions re Stream Flow Reduction Activities (SFRA) Support for small forestry grower expansion Wetland and Riparian Zone Delineation Programme DWAF planning for expansion process (SEA in E Cape etc)	DWAF	Further work needed to incorporate biodiversity conservation objectives in to DWAF planning tools for small grower expansion Development and piloting of small grower and environment guidelines in demonstration projects
	Wetland and Riparian Zone Delineation Programme FSC certification and attempt to extend to small growers Support to Working for Water and Working on Fire Programmes Ongoing environmental management activities	ForestrySA	FSC certification does not adequately address land use change/conversion as a principle Management of permanently unplanted forestry owned land does not adequately incorporate biodiversity management best practice – need work re management objectives and systems, inventories, monitoring Permanently unplanted forestry owned land that contains biodiversity of significance is not formally secured for conservation Need for incentives to further expand environmental programs, such as tradeable development rights & implementation of Municipal Property Rates tax exemption for conservation stewardship
Urban Gauteng Province	Environmental and land use planning Regulatory functions re EIA applications Responsible for ongoing implementation of Gauteng biodiversity conservation plan and ensuring incorporation of this key decision support tool into other provincial sectoral plans and decision making processes Environmental enforcement The Gauteng Provincial Cabinet has approved the Gauteng Conservation Plan (known as C-plan 2), which specifies that 25% of Gauteng needs to be conserved to meet the province's biodiversity management targets. C-plan 2 is being used as a decision-support tool specifically for the administration of EIA regulations and also being integrated with municipal planning tools. Development of key policies and plans at a provincial level include the Gauteng Open Space Programme, Wetlands Policy, Provincial Ridges Policy, Provincial Red Data Plant Policy and Environmental Management Frameworks.	GDACE	Limited coordination among spheres of government responsible for land use planning and development Need for coordination and collaboration of efforts to reach cumulative impact in the grasslands biome Urgent need to formally secure key urban sites for conservation as open spaces seen as fair game for development

Category	Baseline Activity	Organisation	Gaps
	Environmental management Regulatory functions re land use and development applications Protected area (parks) management and expansion Incorporation of Gauteng's conservation plan into municipal plans, such as SDFs, EMPs etc Environmental enforcement	Gauteng Province Municipalities	Limited coordination among spheres of government responsible for land use planning and development Need for coordination and collaboration of efforts to reach cumulative impact in the grasslands biome Resources for conservation compete with developmental needs and agenda Awareness and appreciation by urban decision makers of value of grassland ecosystems and biodiversity in urban economy is limited
	Wide range of biodiversity interventions at local programme site level, e.g. community projects, and often driven by need to respond to development applications during the EIA process Some interventions at a broader scale – e.g. Gauteng Conservancy Association	Gauteng based NGOs – e.g. Gauteng Conservancy Association, WESSA etc	Need for coordination and collaboration of efforts to reach cumulative impact in the grasslands biome
	Preparation of EIAs Undertake urban developments	Professional associations & related companies – e.g. EIA Impact assessors	Such professions need to incorporate biodiversity into their professional work Toolkits for how to do this needed
Coal mining	DME responsible for implementation of mining laws and policies, ensuring the EMPR is done, and enforcement of conditions and ensuring rehabilitation occurs MPB responsible to comment on mining applications	DME, MPTA	Proposed location of future expansion of coal mining does not reflect biodiversity priorities Awareness and appreciation by mining sector of value of grassland ecosystems and biodiversity is limited
	Working for Wetlands is a public works poverty alleviation programme undertaking rehabilitation of wetlands. It is funded through DEAT and located within SANBI	WfW	Needs to find more sustainable solutions for wetlands such as wetland mitigation banking. Policy and pilots for offsets needed

Category	Baseline Activity	Organisation	Gaps
	<p>Environmental policies and management schemes of big coal mining companies</p> <p>Joint dialogue on mining and biodiversity. The objective is to provide a platform for communities, corporations, NGOs and government to engage in a dialogue regarding the need to balance ecosystem protection with production interests. Development of user guides, identifying systems, tools and processes that can be used at various stages of the mining cycle (programme development, operations and closure planning/implementation). The issue of biodiversity offsets is being discussed in this forum.</p> <p>CoalTech 2020 is a collaborative research programme which was formed by the major coal companies, universities, the Centre for Scientific and Industrial Research (CSIR), and government to develop technology for the coal industry to remain competitive including research to address a range of environmental issues such as land rehabilitation.</p>	<p>Private companies</p> <p>Chamber of Mines</p> <p>CoalTech2020</p>	<p>Small mining companies, environmental awareness limited</p> <p>No biodiversity off-sets policy or practice in place</p>

1.8 Normative Solutions needed to Address Threats

1.8.1 Enabling environment

90. The baseline situation is characterised by many, but uncoordinated, efforts to manage grassland biodiversity. Although the enabling environment is largely in place, with a supportive policy and legal framework, there is a gap between policy and implementation. Measures are needed to improve enabling conditions further, geared to ensuring that production sectors are accommodating biodiversity management objectives in their production practices. The normative solution entails a number of improvements in the enabling environment. A knowledge management system that will facilitate information sharing, networking and replication of good management practices in different production sectors will be in place, catering to the information needs of the public sector, private enterprises, and civil society. Informed production enterprises, led by industry champions in each sector, will be negotiating tradeoffs between production endeavors and conservation needs with informed regulatory authorities, based on sound data. The capacity of regulatory institutions across the environment and production sectors to coordinate the implementation of policies, develop and adapt plans, and monitor their implementation will be in place. These actions will ensure that stakeholder interventions are coordinated so that efforts are more than the sum of the parts.

1.8.2 Agricultural sector

91. Under the baseline scenario, rangeland practices will be geared towards enhancing the productivity of grazing, and will not incorporate larger biodiversity management considerations. Although rangelands constitute the most conservation-compatible production enterprise, the biodiversity dividends will be sub-optimal in that scenario. In particular, burning regimes and stocking practices will adversely affect the floristic and invertebrate component of the grassland biota. Where cropping expansion occurs, it will do so regardless of biodiversity management needs.

92. The normative solution will engineer a better alignment between production needs and conservation imperatives on agricultural lands. A range of measures will be in place, facilitating the integration of biodiversity management objectives into sector production practices. These include the application of win-win biodiversity-compatible rangeland management systems. The incentives for farmer uptake of these practices will be improved through the emergence of a certified domestic red meat market, recognising environmental good practice. The organised livestock and game production associations will be playing a pivotal role in bridging the information divide between farm enterprises and the conservation fraternity concerning the employment of biodiversity-friendly management systems. Finally, expansion of cultivated lands, in particular for the new generation of crops such as bio fuels, will be occurring on fallow lands, or those of low conservation significance.

1.8.3 Forestry sector

93. The organised forestry sector in South Africa is environmentally aware and part of the international certification system operated by the Forest Stewardship Council (FSC). The future location of plantations is of concern because new plantations have significant negative impacts on biodiversity, resulting in direct habitat loss and changes in ecosystem dynamics. Existing forestry estates contain large areas of unplanted grasslands which are not being managed specifically to address threats to biodiversity. In the normative solution, companies will be managing these lands to protect biodiversity, and earning recognition for good management practice through improved industry certification schemes. Land allocation decisions for new plantation developments will accommodate biodiversity management needs, ensuring that tradeoffs are being considered in the allocation process. Off-site impact offset arrangements will be applied as a standard mitigation measure.

1.8.4 Urban economy in Gauteng

94. Urbanisation in Gauteng on its present trajectory will result in unmitigated development and accompanying biodiversity loss. As the area is a centre of distribution for components of grassland biodiversity, such development will undercut global environmental benefits. The normative solution will see the induction of a suite of activities to address the underlying problem. First and foremost, there will have been an attitudinal shift in the institutions responsible for regulating urban development, and amongst the developers themselves (i.e. city planners, architects and the construction industry). The management tool box will have been expanded, improving decision making and mitigation options. While regulatory functions will be strengthened to protect the most critical sites for biodiversity, this will be complemented by development offset arrangements aimed at internalising the costs of land conversion in green spaces into the development equation. Coordination and cooperation amongst the three spheres of government will have been facilitated.

1.8.5 Coal mining sector

95. Steps are being taken by the government and the coal mining industry to address the larger environmental impacts of coal mines. Coal mining in the grasslands biome does not pose a substantial on-site threat to biodiversity because the actual surface area mined, even in open-cast operations, is relatively small. However, mining companies are major landholders in the biome, and undeveloped lands within the mining estate have important conservation values. The sector imposes significant off-site impacts, particularly on wetlands affected by water abstraction. The normative solution will see biodiversity planning information used by mining companies and regulatory authorities to plan new coal mines. Moreover, innovative new market mechanisms, in particular wetland offsite mitigation measures and wetland mitigation banking, will be piloted, lessons shared and good practice accommodated in business practice. This will be applied in partnership with State sponsored wetland protection schemes, such as Working for Wetlands, and designed so as to ensure adequate regulatory oversight. The Water Research Commission will

also support the necessary scientific research regarding difficult issues such as mitigation ratios, maintaining catchment integrity and the need to mitigate type for type.

1.9 Barriers to the Conservation of Biodiversity

96. Under the baseline scenario, many activities that directly and indirectly contribute to improved management of the natural resources within the grasslands biome will occur, but these will not by themselves ensure that biodiversity management objectives are being attained. Natural veld will be gradually transformed into cultivated lands, plantations, coal fields or urban settlements without due regard to biodiversity management considerations. Production activities will continue to pose an unmitigated threat to biodiversity in production landscapes, where the bulk of the biome's biodiversity resides. A number of barriers are presently impeding efforts to address these problems. If left unattended, this will result in a continued mismatch between conservation objectives and practices and production interests and practices. The main barriers can be clustered as follows: a) Market failure and paucity of incentives; b) Systemic and institutional capacity weaknesses; and c) management tools and limited management capacity. A summary of the threats to grasslands biodiversity within the biome, root causes, and the barriers to their mitigation is given in Annex I.

1.9.1 Market failure

97. The economic heartland of South Africa is within the grasslands biome and thus here, more than anywhere else, market forces drive development. Ecological goods and services supplied by grasslands tend to be public goods that do not have a market price determined through market forces where a price is agreed between a willing buyer and a willing seller. As a consequence, the ecosystem functions of the grasslands are not being accounted for in land transactions and management. The perceived free value of the ecosystem leads to land use allocations that may not optimize the total economic value. There are three immediate opportunities available to address this imbalance:

(i) While a number of environmental certification systems have been established in certain industries, most notably the plantation forest sector, these do not yet accommodate the specific management needs of the grasslands. For forests, certification systems are geared, in terms of biodiversity reach, to addressing the management of native forests rather than non-forest ecosystems. Although about 80% of plantations are ISO 14001 or FSC compliant, grassland biodiversity management objectives are not adequately integrated into the FSC system. However, these systems provide the conservation community with a good basis for strengthening management, working in close association with the industry and certification body. The possibility also exists of developing a certification programme for livestock and game farmed meat using environmentally friendly standards, applying good management practices for biodiversity. Option assessments undertaken during programme preparation have shown that such an initiative could have far reaching consequences in promoting biodiversity-friendly management practices. It could also lower the dependence of the beef industry on grain from cultivated lands for feeding cattle in feedlots.

(ii) The existing incentive in the Local Government Municipal Property Rates Act should be better utilized. This Act provides for a tax exemption on private and communally owned land that is formally conserved under different categories of protected area. Capacities will need to be built amongst landowners and users, to enable them to set up conservation management systems that qualify for this exemption. There is a danger, otherwise, that large tracts of unplanted forestry owned land containing important biodiversity will be sold to avoid payment of this new rural land tax.

(iii) Regulated offset arrangements²³ need to be developed, such as wetland mitigation banking, or urban greenspace offsets, that allow developers to compensate for the direct impacts and externalities imposed by production operations, through protection and/or restoration of land with equivalent conservation value. While this, by itself, will not uncover all the non-pecuniary elements of biodiversity value forfeited in production processes, it will help to make the costs more tangible. Such schemes may also be more efficient than command-and-control systems, which do not allow developers to weigh the costs and benefits of achieving mitigation targets through different means.

1.9.2 Systemic and institutional capacity weaknesses

98. While a strong macro-enabling framework is in place, subsidiary regulations, plans, and management guidelines and tools have yet to be developed to put policies into effect. The impetus for action by production sectors operative in the landscape is being undermined, in part, because awareness amongst key decision makers of the economic value of grasslands ecosystems is limited. Furthermore, existing data, including of the ecological and economic parameters for grassland management, is not being adequately shared and used for management purposes. As a consequence, it is difficult to ascertain the acceptable level of tradeoff needed between development objectives and practices in production sectors, and those for biodiversity conservation.

99. The above-mentioned barriers are compounded by inadequacies in the systems for coordinating conservation management with the regulatory functions of public production sector institutions. Coordination and collaboration between spheres of government responsible for land use planning, decision making, and land management will need to be improved. Biodiversity conservation plans that identify biodiversity priority areas need to gain legal status as formally gazetted bioregional plans so that other sectors and spheres in government will take them more seriously when making land use and development decisions. While the Biodiversity Act gives legal teeth to these plans, information gaps and mechanisms to cultivate collaboration between production interests and conservation practitioners will be needed to put them into action, allowing for a process of informed negotiation. As a consequence, the planned location of new developments, is they for urban expansion, coal mining, plantations or cultivation, do not yet adequately reflect biodiversity priorities.

1.9.3 Management tools and capacity

100. There has never been a focus on accommodating biodiversity conservation objectives in veld management practices, which tend to be solely production focused. However, existing research shows that win-win options exist, that allow biodiversity conservation needs to be accommodated in grazing management systems. However, weak links within and between tertiary education institutions, government, industry associations, and farmers have meant that innovative trials on biodiversity-friendly veld management have not been taken to scale in the field. Current mechanisms for supplying this information to land users are inadequate, and the information that is available is too general to accommodate the heterogeneity in ecological conditions at the farm level.

101. Gaps in know-how also affect management interventions in other sectors, including plantation forestry and coal mining. These industries manage large swathes of undeveloped grasslands, which while not necessarily threatened by direct habitat conversion by the companies themselves, are subject to other

²³ The ICMM defines biodiversity offsets as “sustainable conservation actions intended to compensate for residual, unavoidable harm to biodiversity caused by development projects, so as to aspire to a no net loss in biodiversity” (ICMM, 2005). Offsets could offer companies a means of ensuring continued access to the license to operate, and investors a mechanism to help minimise risk associated with corporate impacts on biodiversity.

pressures which remain largely unmitigated. These include invasion by alien species, which out-compete native species, predator control programmes at landscape level, and fragmentation of small habitat plots. Tools are needed to inform enterprises of cost-effective management measures to improve stewardship of these areas, to be accompanied by due recognition through market schemes or incentives. These needs extend to the agricultural sector, where management of critical habitats, such as riparian zones, wetlands and rivers has been problematic.

102. These problems can be resolved to some extent through the production of good practice guidelines. However, there are two additional impediments to action, namely, capacity weaknesses at the enterprise level to put these guidelines into effect, and effective ways and means of disseminating information at a mass level. While the industries themselves can play a big role in addressing these gaps, particularly where organized industry associations are in place, there has been little attempt thus far to build capacity and provide support to capitalize on the opportunities.

PART 2: Strategy

2.1 Programme Rationale and Programme Conformity

103. The NGBP responds to the critical threats confronting grassland biodiversity by addressing barriers to the attainment of normative solutions to their remediation. The normative solution, established to accommodate the special needs and circumstances of the biome, is to mainstream biodiversity management into production practices employed by the main production sectors in the grasslands landscape. There are a number of conservation efforts already underway in the grasslands biome, but by themselves these will not ensure that biodiversity management objectives are adopted by production sectors or that ecosystem services are sustained and secured within the grasslands.

104. The programme will complement and facilitate synergies between existing grassland biodiversity conservation initiatives by seeking to mainstream conservation objectives into the production strategies and operational practices of the agriculture, forestry, urban development, and coal mining sectors. Programme interventions have been identified with the active involvement of these production sectors. The strategy has been developed based on an analysis of needs in the target sectors facilitated through feasibility assessments undertaken during the preparatory stage. These have allowed the programme to focus on the most critical barriers to positive action. Success in this endeavour will depend to a large extent on the leadership and ownership exemplified by the different production sector institutions involved in implementation. This will depend to a large extent on the ability to forge an acceptable consensus on tradeoffs between production and conservation.

105. The GEF-supported element of the programme will be the core catalyst around which the rest of the programme will form. The NGBP is conceptualised as a ten year programme and adopts a phased approach comprising a suite of carefully designed and targeted interventions split into two phases of five years each. During the first phase (2007-2012), GEF supported activities will be focussed on building South Africa's capacity to absorb and sustain investments designed to sustain and secure grassland biodiversity. At national level, GEF resources will be dedicated towards building capacity at the systemic, institutional and individual scales to plan, execute and monitor activities. The funding is intended to improve the enabling environment, an endeavour towards which other funding has been leveraged. At the same time, local level activities will demonstrate how production practices in the different production sectors can be adapted in order to address biodiversity management objectives.

106. The second phase (2012 – 2017) will focus on leveraging investments to consolidate progress from phase 1, scaling up best practices which have been identified during the first phase and advancing state of the art measures to adapt mainstreaming approaches to anticipated long-term climatic changes. These interventions will ensure that land is not just conserved but productively used, thus ensuring social and economic sustainability beyond environmental objectives. GEF funding for phase 2 would be dependent

upon the successful attainment of agreed outcomes in phase 1, which will be subject to independent validation, as well as the commitment of significant additional co-financing over that leveraged in phase 1. Phase 1 interventions are designed to ensure that global environmental benefits will continue to be delivered, irrespective of the availability of further GEF investment. The programme will be continued beyond the life of the GEF intervention, building on the measurable results it fosters.

107. The spatial biodiversity priority assessment undertaken during the preparatory phase of the programme has helped identify conservation priorities in the grasslands biome. This included an assessment of terrestrial biodiversity, wetland ecosystems and ecosystem services²⁴. The information from the assessments was integrated into a common planning unit of the quaternary catchment to identify 434 higher priority catchments (out of 1033). These catchments were aggregated to form priority clusters. The clusters were assessed as to their biodiversity and ecosystem service content, as well as the land use situation and conservation efforts, to produce a profile for each. 15 priority clusters were identified, occupying 50% of the biome. This information allows for the development of appropriate biodiversity mainstreaming mechanisms in these areas.

2.2 Programme Goal, Objectives, Outcomes and Output

108. The programme will contribute to the achievement of the following goal:

The biodiversity and associated ecosystem services of the grasslands biome are sustained and secured for the benefit of current and future generations.

109. The programme will be responsible for achieving the following programme objective:

Major production sectors are directly contributing to the achievement of biodiversity conservation priorities within the grasslands biome.

110. The Programme Objective will be achieved through five Programme Outcomes

Outcome 1	Enabling environment for biodiversity conservation in production landscapes is strengthened
Outcome 2	Grassland biodiversity conservation objectives mainstreamed into agriculture
Outcome 3	The forestry sector directly contributes to biodiversity conservation objectives in the grasslands biome
Outcome 4	Grassland biodiversity management objectives mainstreamed into urban economy in Gauteng
Outcome 5	Biodiversity management secured in coal mining sector

2.2.1 Outcome 1: Enabling environment for biodiversity conservation in production landscapes is strengthened

111. The enabling policy and regulatory framework is deepened. The broad enabling legal and policy framework for mainstreaming biodiversity into production practices is in place but needs to be deepened through the development of subsidiary regulations, plans, and guidelines. The National Biodiversity

²⁴ Ecosystem services were mapped for the grasslands based on the importance of the ecosystem service and availability of data for mapping the service. Services mapped included water production, groundwater production, soil protection, carbon sequestration, and grazing. From these maps areas of high importance to each ecosystem service were established and maps were combined to produce an integrated map of ecosystem service priorities in the grasslands. Water production through surface run off was kept apart due to its importance in the biome and was assessed as a separate layer. From the combined layer of services, areas of importance to 2 or more services were highlighted and take up approximately 18% of the biome.

Framework sets norms and standards for publishing bioregional plans. Bioregional plans for the grasslands biome will be gazetted at the appropriate level according to these norms and standards. Gazetted bioregional plans will be incorporated into provincial and local government planning systems. Multilayer GIS maps at both the grasslands biome wide level and fine scale level will be produced, providing decision makers with a mechanism for multi criteria analysis. SANBI's conservation planning section is primarily responsible for this work. The NGBP will provide technical assistance to help frame the guidelines, and the bioregional plans and provincial subsidiary regulations.

112. The NGBP will engender the informed use of economic valuation for the management of the grasslands. This will require the development of rigorous, comparable, estimates of the economic value of grasslands ecological capital. The following steps are needed: update the inventory of grasslands goods and services, perform valuation, construct official national accounts, and promote the use of such values in decision making. The NGBP will address this need in collaboration with the National Statistical Service of South Africa, which has started to develop a national resource accounts system. It is proposed that the System of Integrated and Environmental Accounting, which served as a basis for the United Nation's Handbook on Environmental Accounting, will be used as a framework for this exercise.

113. Knowledge management system for the umbrella NGBP is developed and implemented. A knowledge management system will be developed that will facilitate information sharing, and knowledge networking within and across the different outcomes of the Programme across the public, private, and civil society sectors. This will facilitate the dissemination of knowledge management toolkits developed under the Grasslands Programme. The objective is to engineer the replication of good management practices across the biome. Opportunities for facilitating knowledge exchange such as seminars, field trips, exchanges etc, will be created. In conjunction with this, a data management system, including website and stakeholder database will be created. An effective programme-level communications system will be put into place and managed on a continual basis. A robust M&E system and reporting process will be designed whereby all affiliated institutions will report into the system.

114. Increased capacity of stakeholder institutions to engage effectively in mainstreaming biodiversity management into production practices. For any mainstreaming programme to be successful, a range of institutions and stakeholders whose core business is not biodiversity management will need to be actively engaged. Processes and protocols for facilitating such engagement will be developed. These will a) allow for formal institutional affiliation with the NGBP, b) put in place MoUs that set out the roles and responsibilities of the different implementing parties, and c) allow for a peer review system of the implementation process. Another element will involve building the capacity of institutions to mainstream biodiversity management effectively across various divisions within their organisations. This will include: a) strengthening the capacity within SANBI as the coordination hub for the Programme; b) supporting targeted training to strengthen capacities within the implementing agents.

2.2.2 Outcome 2: Grassland biodiversity conservation objectives mainstreamed into agriculture

115. Improved rangeland management systems piloted that incorporate biodiversity management objectives²⁵. The NGBP will work with groups of landholders, land users and workers at a local level in discrete areas to test ways and means of accommodating biodiversity needs in production practices, building on the strength of existing research. A matrix of land uses will be promoted, which include set asides and legally binding contract nature reserves, eligible for tax exemption in terms of the Local Government

²⁵ This includes associated cultivation such as pastures; and also crops such as various grains as it is common in the grasslands for farmers to have both cattle and crops.

Municipal Property Rates Act²⁶. The NGBP will support two field demonstrations aimed at testing and adapting rangeland management²⁷:

- Wakkerstroom/Luneburg area of Mpumalanga province (see map in Annex 11). This site covers an area of 182 108 hectares, with 79.8% still in its natural state and a population of 45 771 people. It has been selected because of its high biodiversity significance; because the primary main land uses are red meat and wool production which are highly compatible with biodiversity conservation; and because there is institutional capacity for implementation, through the Ekangala Grasslands Trust.
- Inland River Ecosystems: Free State Province (see map in Annex 11). This site contains a high number of endangered river ecosystems. However, there is still potential to meet conservation targets. It aims at adapting agricultural use practices to ensure congruity with wetland and river ecosystem management objectives. There will be a focus on the Middle Modder River catchment comprising an area of about 685 600 hectares, including the tributary Renosterspruit River which supplies water to Bloemfontein, Thaba Nchu and Botshabelo. The bulk of the land in the catchment is natural veld (75%) used for cattle and game farming in the west, and sheep farming towards the east. The health of the Modder River is being compromised because of extensive agriculture (irrigation, ploughing of floodplains, over-grazing and incorrect farming practices); artificial structures (road construction, bridges, weirs, dams); and urban development (abstraction, stormwater runoff and sewerage effluent etc).

116. Activities will be undertaken in three streams:

- Biodiversity-compatible best practice management strategies developed and used: In an industry that lacks a focus on and awareness of biodiversity, the primary role of the NGBP is to provide leadership and direction. Demonstration of rangeland management strategies that are successful from both a biodiversity outcomes and an economic perspective is critical to raising awareness of the role and importance of biodiversity to agricultural sustainability. The NGBP will coordinate the activities of several role players including the National and Provincial Departments of Agriculture, commodity associations, and landowners to develop, collate and disseminate information to land users on biodiversity-compatible best practice grazing management strategies. This will be implemented at the demonstration sites and replicated through incorporation into policy guidelines.
- Conservation Stewardship Arrangements in place: conservation stewardship on private land is critical to secure and sustain grassland biodiversity in agricultural production areas. Stewardship involves the wise use, management and protection of natural resources by private landowners, underpinned by incentives. The NGBP will promote 3 options, with each option permitting different perturbations of land uses, and benefits for the landowner. The entry level involves a voluntary conservancy; the middle level requires a co-operation agreement; while the highest level results in formal proclamation of a contract nature reserve. Incentives that can be provided through government programmes include: general land management planning support, support for the development of invasive weed management plans, Municipal rates rebates, marketing assistance, advanced extension service support and access to game animals, to stock land. The highest level results in the highest benefit being an exemption from payment of Local Government Property Rates. 15 landowners in the Wakkerstroom/Luneburg demonstration area have established an interest in managing 22,000 hectares of biodiversity priority under stewardship

²⁶ This and other potential incentives need to be actively pursued as they are key tools in promoting the development of conservation areas on privately owned land, incorporating both livestock and crop farms.

²⁷ These sites have been selected using three criteria, namely: (i) agricultural land use patterns and associated pressures on biodiversity must be broadly representative of those prevailing across the biome; (ii) there must good prospects for effectively addressing these pressures, particularly in terms of landholder receptivity to action; and (iii) the site must contain biodiversity of global significance.

arrangements. The NGBP will provide the capacity to catalyse the demonstration. In addition the Programme will provide seed resources for the creation of a biodiversity stewardship capacity within the three affected provinces²⁸, so that they are able to respond effectively to the needs of private landowners, particularly with respect to incentives. This capacity will also be utilised to support stewardship within the forestry sector. The beneficiary agencies will commit themselves to long term future funding of the positions. KZN-Wildlife has already funded and filled a Stewardship Manager position.

- Capacity building of the organised agricultural sector bodies. The NGBP will provide support to build the capacity of livestock and game production associations to enable them to serve as a purveyor of information on conservation-compatible farming to their members. The capacity building efforts will include the development of toolkits, and training and linkages will be forged with the SANBI knowledge management system to facilitate extrapolation of critical information.
117. Biodiversity-friendly livestock/game production systems promoted through certification scheme. Working in collaboration with the retail sector and livestock industry associations, the NGBP will facilitate development of a domestic certification system for range-fed beef, mutton and/or game, with a view to recognising good environmental management practice. Lessons will be learned from Namibia where an initiative has started that will see Namibia export beef under the label Cheetah Country Beef²⁹.
118. Land use allocation decision making processes reflect biodiversity conservation priorities. The NGBP will engage with the land use planners in Provincial Departments and with the National Department of Agriculture to ensure that new cultivation developments do not compromise biodiversity value (for example ploughing virgin grassland) and are appropriately located. This will be facilitated through the use of the gazetted Bioregional Plans, and the collection and utilisation of data at appropriate scale to facilitate robust multi-criteria analyses accommodating economic, operational and conservation needs. The programme will work with government and industry bodies to influence the future location of bio-fuel crops. The NGBP will support DWAF investigations into the possible proclamation of sugar cane as a stream flow reduction activity which would provide impetus for market evolution.

2.2.3 Outcome 3: The forestry sector directly contributes to biodiversity conservation objectives in the grasslands biome

119. Improved management of existing unplanted forestry owned land. The NGBP will work with forest companies to improve the management of unplanted lands within the forest estate. Seed funding will be provided for a working group of company managers responsible for this land to meet to discuss and agree on biodiversity best management practices. A network of industry specialists mandated with providing extension support to companies and out-growers will be trained, to engender outreach to plantations and out-grower forestry schemes. Specific outputs include the development of site management plans, improved management of wetlands and riparian zones, and clearance of alien invasive species. Awareness raising within the forestry industry, that identifies industry champions and deepens understanding through the various company departments is needed. This will include presenting the case for biodiversity framed in terms of social and financial benefits and creating conditions favourable for companies to become champions for mainstreaming grassland biodiversity management.

²⁸ KZN, Mpumalanga and Eastern Cape

²⁹ Started three years ago, this initiative of the Cheetah Conservation Fund and its partners, the Conservancies Association of Namibia, Meatco and the Meat Board to export an eco label of meat for Namibian farmers is still in its pilot phase. In return for being good stewards to the land and wildlife on their farms, Cheetah Country Farmers will be paid a premium for the best beef they sell, while consumers in Europe will pay slightly more for this beef that is raised without harm to the Cheetah.

120. Conservation Stewardship Arrangements operationalised. A number of companies have indicated that they are interested in designating unplanted lands containing natural grassland as private nature reserves or contractual parks, managed by the enterprise. This interest is partly driven by the Local Government Property Rates Act which, once implemented, will tax this presently un-taxed land, thereby causing the companies to incur new costs. Based on an assessment of GIS spatial grassland biodiversity location data from SANBI and the seven big forestry companies and meetings between the NGBP and these companies, 35 000ha of land have already been prioritised for the programme to focus on (see map in Annex 11). Criteria used to select the sites included biodiversity significance, willingness from the company to make the land available and a combination of opportunities (such as land being adjacent to an existing protected area) and threats. The Programme will work with companies in designated areas to develop plans and operating procedures; to provide a toolbox to be used by company champions for a range of purposes such as presentations needed to convince their Board of Directors; and to develop legal tools for the required proclamation. In addition, the Programme will provide seed resources for the creation of a biodiversity stewardship capacity within the three affected provinces conservation agencies³⁰, so that they are able to respond effectively to needs of the private sector particularly on the issue of the formal proclamation process that requires the sign off by the relevant MEC, land management and monitoring issues. The cost of this capacity building will be shared with the agricultural component.
121. Certification Systems strengthened: The NGBP will provide support to further integrate Grassland biodiversity management into industry-led certification systems and standards. There are two initiatives currently underway that the NGBP will work through to influence industry standards:(i) The National Forest Certification Initiative which seeks to develop a system based on South African characteristics; (ii) The FSC Plantation Review process that has two objectives, namely: “To engage social, environmental and economic stakeholders in an international review of the implementation of the FSC Principles and Criteria for plantations, and to provide clear guidance for their future implementation, with the broad support of the FSC membership; and To provide for the benefit of the global community, clear authoritative and widely accepted social and environmental standards for responsible plantation management (FSC News, Volume 3, 2005).” The NGBP will work with the forest industry to integrate small growers into the certification system. This is critical as future expansion of plantations in South Africa is expected to be predominately small grower based. Attempts to implement the FSC SLIMF³¹ policy, which requires small growers to comply with the same standard as larger businesses, though with streamlined application and reporting systems, have been impeded by limited capacity amongst small growers. The NGBP will collaborate with Forestry SA and community based organisations that represent small growers to overcome these challenges in demonstration-sites, building capacity to plan and implement the operational guidelines.
122. Appropriate expansion of new forestry plantations in terms of location. The NGBP will work with government regulatory authorities for the forestry sector and the industry to ensure that future forest plantation expansion does not occur within areas designated as high priorities for biodiversity conservation. The integration of systematic biodiversity conservation plans that spatially incorporate biodiversity priority areas into forestry expansion plans is expected to make a significant contribution towards grassland conservation objectives. Water permit allocations would be varied by location depending on the impact on ecosystem services and external impacts on wetlands, thus regulating the expansion.

³⁰ KZN, Mpumalanga and Eastern Cape

³¹ Small and Low Intensity Managed Forests

2.2.4 Outcome 4: Grassland biodiversity management objectives mainstreamed into urban economy in Gauteng

123. Biodiversity toolkit (policy, guidelines, decision-support tools) developed for use by province and municipalities within urban areas. A biodiversity toolkit (policy, guidelines, decision-support tools) for use by provincial and municipal government, and private sector associations such as environmental impact assessors, estate agents etc will be developed. Specific areas of focus in the toolkit will include fine scale maps defining areas of conservation priority; guidelines for the integration of conservation planning and management needs into Integrated Development Plans and other spatial development frameworks; and guidelines on how to use offsets arrangements to allow developers to compensate for impacts on greenspaces allocated for development through conservation of areas of equivalent value. A key area will be to provide guidance on the use of the Record of Decision tool issued by authorities as the outcome of development applications to address biodiversity priorities. This might include additional sources of information such as precedent decisions and how terms and conditions can be used in a positive decision on a development application to integrate biodiversity considerations into the development.

124. Strengthening Capacity through Targeted Awareness, Communication and Training: Increasing the understanding of the importance of biodiversity and ecosystem services within the urban economy will be of the essence, if conservation objectives are to be realised. Awareness raising with decision makers is seen as a key strategy to integrate policies that acknowledge the importance of biodiversity with decisions that approve development applications. The capacity of provincial and municipal authorities responsible for town and country planning and regulatory enforcement to address biodiversity planning needs will be enhanced through targeted programmes. Planning, environmental and property professionals will also be targeted as they are responsible for drafting development applications.

125. Secure Priority Areas as Biodiversity Refugia: The NGBP will work with the Gauteng provincial authorities, settler associations and developers to designate refugia representative of biodiversity as set asides. Forty-three sites have been identified, with twelve prioritised for site action. These areas will be subject to different management arrangements, with some sites classified as formal protected areas, and other sites managed through conservation easements, which circumscribe the types of physical development that may be permissible in future. A range of management options will be pursued, vesting management rights to local municipalities, CBOs or citizens groups or groups of developers, participating in the new biodiversity offset scheme. Actions around these priority sites will serve as demonstrations for closing the policy and practice loop, for developing best practice in mainstreaming biodiversity within an urban sector and for identifying specific needs and developing the biodiversity toolkit and communications and awareness raising needs (above). Working with provincial legislative and decision-making officials will also serve to strengthen their capacity and ability to better integrate biodiversity priorities into the development and land-use planning processes under their jurisdiction.

2.2.5 Outcome 5: Biodiversity management secured in coal mining sector

126. A Biodiversity Offset Scheme is developed: the NGBP will work with DWAF, the Working for Wetlands Programme, the Water Research Commission and Mpumalanga provincial authorities to establish wetland offsite mitigation measures and a wetland mitigation banking scheme. Working for Wetlands has started to pilot wetland offsite mitigation with coal mining companies but the initiative is nascent and capacities need to be built. The NGBP will support this initiative by funding capacity building that will play a catalytic role in demonstrating application of the concept through concrete interventions, learning and disseminating lessons and then making the appropriate policy interventions. Wetland offsite mitigation can happen without the existence of banks, whereas banks imply a third party that comprises the marketplace for buying and selling of mitigation credits. The mitigation bank concept is more developed and will comprise tracts of wetlands, either natural or restored, that will be conserved

by developers in order to provide off-site compensatory mitigation for future mining projects. The scheme will be designed to facilitate compliance with regulatory requirements by providing a mechanism for the restoration of wetland areas, in advance of anticipated losses. The wetlands thus protected will be registered as credits which can be sold to permit applicants, or used by the bank sponsor to meet permit conditions. The scheme will be designed to allow credits to be sold to individual companies, or joint ventures between large companies, or large and small mining companies. It will be piloted in the Upper Oliphant's catchment within the Mpumalanga highveld.

127. These market mechanisms are being piloted to secure and safeguard biodiversity. The NGBP will ensure that due process is followed and that mitigation does not override the need to accurately assess impacts and ensure that they do not constitute a fatal flaw i.e. unacceptable loss of biodiversity, before resorting to mitigation options. Key issues that will be addressed include: a) Mitigation Ratios – in the case of functional wetland a greater area of wetland is rehabilitated than that which will be lost, whereas the loss of degraded systems may only require rehabilitation on the basis of 1ha for 1ha; b) Maintaining Catchment Integrity – is it acceptable for an area of the catchment to be fully developed so that natural functions are lost, while other sections are well managed (or should a certain level of functionality be maintained throughout the catchment); c) The need to mitigate with Type for Type – apart from biodiversity linked to different wetland systems, they also perform different ecological services such as flood attenuation. This requires an understanding of the implications of losing specific types such as flood plains, beyond a threshold where further loss will have immitigable downstream implications.
128. Coal mine expansion planned using biodiversity information. The NGBP will work with mining companies, the DME, and the Mpumalanga provincial authorities responsible for EIA decision making and conservation to identify areas marked for coal mine expansion that overlap with biodiversity priority areas and to develop mitigation measures. The Mpumalanga Biodiversity Conservation Plan has only recently been completed. SANBI will support the province to have this gazetted as one of the first bioregional plans that conforms to the National Biodiversity Framework. This will give the plan legal status. Coal mining companies will overlay their GIS information with the MBCP so as to identify where future expansion plans will conflict with areas of high biodiversity. The authorities and companies will then jointly plan mitigation measures such as offsets. The bulk of the costs will be borne by the sector and the concerned regulatory authorities. However, the NGBP will provide funding for an enterprise outreach programme on offset options, and the production of information needed for planning.

Summary of the Threats, Normative Solutions, Barriers and Programme Strategy

129. A Summary of the Threats, baseline, Normative Solution, and Barriers that underpin the Programme Strategy is provided below:

Agriculture

Threat	Baseline	Normative solutions	Barriers	Programme strategy
<p>Cultivation poses greatest threat through habitat loss, fragmentation and disruption of ecosystem function</p> <p>Rangeland threats include habitat degradation and soil erosion through trampling, inappropriate fire regimes</p>	<p>Policy development, regulation, communication and information services, and research on farmer settlement and development, agricultural trade and business development, production and sustainable resource management; Landcare programme; Provincial farmer support; Industry and commodity representation</p>	<p>Better alignment between production needs and conservation imperatives on agricultural lands through integration of biodiversity management objectives into production practices (e.g. application of win-win biodiversity-compatible rangeland management systems).</p> <p>The incentives for uptake of these practices will be improved through the emergence of a certified domestic red meat market, recognising environmental good practice.</p> <p>The organised livestock and game production associations will bridge the information divide between agriculture and the conservation concerning the use of biodiversity-friendly management systems.</p> <p>Expansion of cultivated lands, in particular for new generation crops (e.g. bio fuels) will be occurring on lands of low conservation significance.</p>	<p><i>(a) Management tools:</i></p> <ul style="list-style-type: none"> - No focus on biodiversity in veld management practices; - Weak links between tertiary education institutions, research, government, industry and farmers on biodiversity appropriate management practices and poor communication of information to land users <p><i>(b) Market failure:</i></p> <ul style="list-style-type: none"> - Costs of biodiversity management not reflected in consumer prices <p><i>(c) Institutional capacity:</i></p> <ul style="list-style-type: none"> - Weak integration of conservation management into agriculture sector programmes - Biodiversity information and know how for application of information not available, relevant or accessible resulting in poor expansion decisions <p><i>(d) Management capacity:</i></p> <ul style="list-style-type: none"> - Agricultural decision makers are not aware of or addressing biodiversity objectives/values 	<p><i>(a) Management tools</i></p> <ul style="list-style-type: none"> - Develop biodiversity compatible grazing management best practice to demonstrate compatible rangeland management - Publicise success stories to stimulate farmer interest and convey information - Incorporate biodiversity into relevant national and provincial agricultural policies <p><i>(b) Incentives</i></p> <ul style="list-style-type: none"> - Develop certified system for range-fed beef and promote consumer awareness - Promote use of rates exemption in Property Rates Act for formal conservation of private land. <p><i>(c) Institutional Strengthening</i></p> <ul style="list-style-type: none"> - Capacity building of organized agriculture to address conservation imperatives in rangeland sector programs - Develop tool kits, training, knowledge management system to facilitate replication - Incorporate biodiversity priority areas into planning and decision-making for new cultivations (e.g. bio-fuels) <p><i>(d) Management Capacity</i></p> <ul style="list-style-type: none"> - Facilitate landowner/user response, through engagement of industry associations - Demonstrate good practice for biodiversity best management practices re river ecosystems

Forestry

Threat	Baseline	Normative solutions	Barriers	Programme strategy
Habitat loss – fragmentation of habitat, loss of beta diversity, loss of species Disruption of ecosystem function – altered hydrological system, increased wood biomass, spread of IAS	Regulation of stream flow reduction activities, support small grower expansion, planning for expansion DWAFF & Forestry SA wetland and riparian zone delineation programme Poverty relief programmes (working for water, wetlands, fire) Forest Stewardship Council certification Private sector environmental interventions	Forestry companies will be managing the unplanted grasslands that they own to protect biodiversity, and earning recognition for good management practice through improved industry certification schemes. Land allocation decisions for new plantations will accommodate biodiversity management needs, ensuring that tradeoffs are being considered in the allocation process. Off-site impact offset arrangements will be applied as a standard mitigation measure.	<i>(a) Management capacity</i> - Need to negotiate trade offs between location of future forestry production and biodiversity management - Little biodiversity best management practice tools, guidelines, scientific understanding and capacity within industry to manage unplanted forestry owned land for biodiversity conservation <i>(b) Market failure</i> - Existing certification schemes do not adequately incorporate grassland biodiversity management objectives - Forestry management dominated by command and control rather than by incentives and industry led strategies	<i>(a) Management capacity</i> - Incorporate biodiversity priority areas into planning and decision-making for new plantations to avoid these areas - Identify biodiversity priority areas that overlap with unplanted forestry owned land to be formally conserved for tax rebates - Develop and improve biodiversity best management practice tools, guidelines and capacity - Establish specialists/stakeholders network to provide capacity, co-ordination, fundraising and lobbying for grasslands conservation <i>(b) Market failure</i> - Strengthen market incentive, i.e. certification, to recognise conservation value of grasslands - Develop accessible certification for small growers - Develop market-based instruments to incentivise self-regulation (tradable rights)

Urban

Threat	Baseline	Normative solutions	Barriers	Programme strategy
Ecosystem degradation and loss through construction in biodiversity priority areas Habitat and species loss	Implementation of GDACE Conservation Plan Management of urban protected areas network Environmental and land-use planning EIA applications and conditions attached in development authorisations Municipal development and spatial planning frameworks	An attitudinal shift in the institutions responsible for regulating urban development, and amongst the developers will result in greater integration of biodiversity priorities into urban development planning. The management toolbox will have been expanded, improving decision-making and mitigation options. Strengthening regulation to protect	<i>(a) Institutional capacity</i> - Biodiversity partially factored into decision-making, but not enough capacity at (a) assessment, (b) decision-making, and (c) implementation - Limited coordination among spheres of government responsible for land use planning and development - Open space needs to be utilised for conservation or else it will be developed and	<i>(a) Institutional capacity</i> - Integrate biodiversity management objectives into urban planning and decision makings - Strengthen coordination and collaboration between spheres of govt - Work with champions within the regulatory authority and private sector dealing with development - Build capacity of the municipal and

Threat	Baseline	Normative solutions	Barriers	Programme strategy
		<p>the critical biodiversity sites will be complemented by offset arrangements aimed at internalising the costs of land conversion in green spaces into development.</p> <p>Coordination and cooperation amongst the three spheres of government will have been facilitated resulting decisions with greater integration of environmental priorities.</p>	<p>community buy-in is required</p> <p><i>(b) Management tools</i></p> <ul style="list-style-type: none"> - Inadequate awareness of high biodiversity and ecosystem values within urban areas especially amongst decision makers - Tools to facilitate trade offs limited 	<p>provincial environmental departments and Councilors in reviewing EIAs, land use applications etc</p> <ul style="list-style-type: none"> - Build economic case and incorporate into provincial spatial development strategies, SDFs of IDPs, OSFs etc <p><i>(b) Management tools</i></p> <ul style="list-style-type: none"> - Develop guidelines and tools for biodiversity management in priority areas, which are not part of protected area network, to assist decision-making - Demonstrate tradeoffs that complement 'command and control' - Promote attitude change amongst decision makers

Coal mining

Threat	Baseline	Normative solutions	Barriers	Programme strategy
<p>Disruption of ecosystem function (altered hydrological systems, acidification of soil, nutrient cycling on rehabilitated land, water quantity and quantity)</p>	<p>Policy development and regulation, strong regulation of on-site environmental management</p> <p>Triple bottom line approach of big companies</p> <p>Formal dialogue between mining industry and conservation sector</p> <p>Research to address environmental issues</p>	<p>Biodiversity planning information used by mining companies and regulatory authorities to plan new coal mines.</p> <p>Innovative new market mechanisms, e.g. wetland offsite mitigation measures and wetland mitigation banking, piloted in partnership with state and research institutions, lessons shared and good practice accommodated in business practice.</p>	<p><i>(a) Institutional capacity</i></p> <ul style="list-style-type: none"> - Focus on command and control to regulate wetland/water is expensive to enforce and inefficient - Market mechanisms to promote wetland/water conservation nascent <p><i>(b) Market failure</i></p> <ul style="list-style-type: none"> - Institutional capacity to regulate markets is weak 	<p><i>(a) Institutional capacity</i></p> <ul style="list-style-type: none"> - Pilot wetland mitigation and banking to improve capacity to manage offset - Incorporate biodiversity priority areas into planning and decision-making for new coal mines so that these areas are avoided if possible <p><i>(b) Market failure</i></p> <ul style="list-style-type: none"> - Consolidate biodiversity and mining offset policy - Pilot voluntary wetland mitigation / banking scheme

2.3 Programme Risks and Assumptions

130. The risks confronting the programme have been carefully evaluated during programme preparation, and risk mitigation measures have been internalized into programme design. The relative ratings of risks have informed the programme work plan and budget so as to ensure that time budgets and programme funds are properly geared to addressing risk at the scale needed. A listing of the main risks, risk ranking, and risk mitigation measures is presented in Table 4 below.

Table 4: Risk Analysis

Risk	Risk Rating	Risk Mitigation Measures
1. Significant increase in external development pressures beyond projected scenario - Major economic changes to production sectors, with consequent impacts on biodiversity, could result from potential macro-economic changes triggered by factors such as continued major increases in the world price of petroleum/ devaluation of the rand etc.	M	- Activities have been designed based on a thorough analysis of threats including a strategic economic assessment - The M&E system will provide early warning of threats, allowing mitigation measures to be proactively instituted - Economic fundamentals are strong in South Africa
2. Difficulties in attaining mutual consensus between biodiversity sector and production sectors on biodiversity needs and production imperative	M	- Demonstrate benefits of real tradeoffs - Programme places major emphasis on voluntary led schemes championed by industry - Carefully monitor and disseminate conservation gains from programme
3. Delays in instituting appropriate incentives that trigger mainstreaming in targeted production sectors	M	- Emphasis to be placed on supporting cabinet approval of the Treasury policy framework for fiscal incentive - Winnable specific fiscal incentives for agriculture that comply with the above framework are already in place - Tax incentives for stewardship in the Property Rates Act, translated into practice on the ground, serve as strong illustration of benefits to farmers - Achievable certification scheme supported by strong marketing campaign to stimulate market demand for certified agricultural products
4. Institutional commitment for mainstreaming outside conservation division remain shallow and do not percolate across other divisions such as operations etc	S	- Identification and building of champions for biodiversity at the decision-maker level - Influencing attitude change towards a better appreciation of the role of biodiversity and ecosystem services by the appropriate pitching of the importance of ecosystem services to underpinning economic growth and development - Demonstration projects show the beneficial link between biodiversity conservation and socio-economic benefits for the poor and the local municipality - Increased brand awareness of the grasslands biome and effective communication strategy implemented
5. Governance by regulatory authorities weakens resulting in increased lack of compliance	M	- Development of partnerships between institutions involved in the programme resulting in shared knowledge and skills - Effective capacity building - Continued engagement with decision-makers at national, provincial and local levels to raise concerns - The M&E system will provide early warning of threats, allowing mitigation measures to be proactively instituted

* Risk rating – H (High Risk), S (Substantial Risk), M (Modest Risk), and L (Lowest Risk). Risks refer to the possibility that the assumptions, defined in the logical framework may not hold.

2.4 Alternative Strategies Considered

131. A number of alternative strategies were evaluated during programme design. These alternatives and the rationale for adopting the selected approaches are summarized in Table 5.

Table 5: Alternative Strategies and Rationale for Approach

Alternative	Rational for Approach Selected
Focus the programme on improving the management effectiveness of protected areas	<p>A pure protective area focus would not be effective because of the small percentage of land within the grasslands biome (2.8%) under formal protection and the fact that the bulk of biodiversity lies in production landscapes under private and communal land ownership. SANParks is committed to the establishment of a National Grasslands Park, and is utilizing information provided by the programme to identify where this will be located. This will slightly expand the Protected Areas estate. However, the PA will not be able to cover all the diversity of vegetation types and river ecosystems needing protection. The high gamma diversity of the grasslands means that large areas would need to be conserved to meet conservation targets. This is difficult to achieve through protected areas. However, mainstreaming activities engineered under the programme will be designed to complement activities in protected areas, to reduce external threats to sites.</p>
Increase or limit the sector scope of the programme	<p>At the outset, the programme considered both limiting the scope to fewer sectors and inclusion of additional sectors. The value of limiting the programme to two sectors is that maximum effort can then be focused on them. The disadvantage is that the scope and scale of the programme would be too narrow. Further sector activities do not occur in isolation but in a matrix of land uses—meaning that there are strong cross sectoral inter-relationships that need to be considered and managed. There are good reasons underpinning the selection of four sectors.</p> <ul style="list-style-type: none"> - The agricultural sector is clearly the biggest player in terms of scale and also in terms of the potential to create win-win situations because of the high compatibility of well-managed cattle, sheep and game farming with grassland biodiversity. - About 90% of forestry plantations occur within the grasslands biome. Plantations have a high negative impact on grasslands, but the industry is open to mainstreaming biodiversity management in operations because there is an existing market incentive (certification), and a strong regulatory framework is in place, which is driving environmental compliance. A number of fundamentals exist that bode well for mainstreaming. These include: a history of engagement by the industry on environment, a well organized sector, and large tracts of unplanted forestry-owned land that contains important grassland biodiversity which the industry has indicated an interest in protecting -The urban economy of Gauteng cannot be ignored as the economic and decision-making powerhouse of South Africa, and also because it is an important storehouse of grassland biodiversity. The potential impact of attitude change engendered by the programme amongst key decision makers of the role of biodiversity and ecosystem services in underpinning economic growth should have dividends for the grasslands as a whole. - Coal mining stands to increase as the energy crunch hits home and there are a number of opportunities in the sector that bode well for mainstreaming. These include: the companies face risks from non compliance with environmental standards, including lost access to potential mining licenses, access to finance, damage liabilities and shareholder activism; the industry is well organised and well resourced; the companies own large tracts of land that are not mined, which could be secured for conservation; time is ripe within this sector to explore offsets, such as wetland mitigation banking. <p>The inclusion of two additional sectors – tourism and medicinal plants – was carefully considered. However, these sectors are not included in the scope of the GEF initiative as it was clear from the agricultural economic, land use compatibility and spatial biodiversity assessments undertaken in the beginning of the design phase that their perceived impact on biodiversity at a landscape level is lower than the target sectors.</p>

2.5 Expected Global and National Benefits

132. A range of economic benefits are associated with grassland biodiversity, including:

- Direct consumptive use values such as firewood, meat, medicinal plants, and grass used for thatching and baskets that underpin various commercial and subsistence agricultural practices;
- Direct non-consumptive use values such as cultural, spiritual, and heritage value underpinning the recreation and tourism sectors;
- Indirect use values, sometimes called ecological functions, such as watershed protection, carbon sequestration, and nutrient recycling;
- Non-use values that include bequest and existence values, being the premium placed on maintaining biodiversity for possible future uses, and the intrinsic significance that biodiversity holds.

133. **Global Benefits:** Despite, and often because of their value, grasslands across the world are one of the biomes most impacted on by human activity. A number of global ecosystem/region assessments have found that grasslands are one of the greatest conservation priorities worldwide. Globally they remain one of the least conserved biomes, with just over 7% of grasslands falling into protected areas, and temperate grasslands having less than 0.69% protected. The principal global environmental benefit of the programme derives from the added security provided for grassland ecosystems and constituent flora and fauna through effective mainstreaming of grassland biodiversity conservation objectives into production sector practices. In addition, the stewardship element embedded within the mainstreaming approach will result in innovative formal protection of refugia representative of grasslands biodiversity within the agricultural, forestry and urban sectors. One important global benefit will be the protection in situ of the wild races of many hybrid flowers important to commerce. These include the arum lilies, watsonias, and gladioli.

134. **National Benefits:** Initial work carried out to attach values to various ecosystem services from the grasslands biome using existing information, estimates that the value of the flow of ecosystem services in grasslands to be in the order of R9.7billion per annum, or R29,005 per km².

Table 6: Preliminary estimated grassland values

	Unit	Grasslands
Total Economic Value	R million	R 9,761
Area	Km ²	336,544
TEV/Area	R/ km ²	R29,005
Consumptive use	R million	R 1,589
Non-consumptive use	R million	R 233
Indirect use values	R million	R 7,939

135. Beneficiaries include national, provincial and local government agencies mandated with responsibilities for environmental management, who will benefit from enhanced collaboration, knowledge management systems, and institutional mainstreaming effectiveness. Production sectors will benefit from improved institutional capacity to address grassland biodiversity management objectives. Better biodiversity management practices linked to incentives, such as an environmentally appropriately-farmed red meat certification scheme, will enhance economic production for farmers. Formal conservation of refugia representative of grassland biodiversity arising through the stewardship approach, will result in tax benefits for private landowners. Civil society will be actively involved in demonstration interventions and benefit through capacity enhancement.

2.6 Country Eligibility and Drivenness

2.6.1 GEF Eligibility

136. The Government of South Africa is a recipient of UNDP assistance and meets the eligibility criteria for GEF Funding. The programme concentrates on GEF Strategic Priority 2 (BD2): “Mainstream biodiversity in production landscapes and sectors”. The programme is consistent with guidance prepared by GEF on activities under this strategic priority, the specific objective of which is “to integrate biodiversity conservation in production systems and sectors to secure national and global environmental benefits. The operational emphasis is flexible to allow for the development of tailored activities based on understanding of country context, biodiversity conservation problems, opportunities and demand.” The Programme adopts STAP guidance to the GEF Council on activities under BD II: Mainstreaming Biodiversity in Production Landscapes and Sectors Report (GEF/C.24/Inf.11). A STAP workshop was organised by the programme sponsor, SANBI in Cape Town in September 2004, and the programme was developed in close parallel to development of the strategy. The programme addresses the following elements of the GEF Strategy:
137. Addressing barriers to the uptake of biodiversity production systems in key production sectors, in particular by strengthening management capacities at the systemic and institutional levels;
138. Strengthening policy to accommodate biodiversity management needs in production activities;
139. Integrating biodiversity conservation objectives into planning systems including physical plans and production sector specific plans;
140. Establishing/ strengthening certification schemes to recognize good management practices; and
141. Demonstrating good production practices at the site level and providing for wider replication.
142. The programme is consistent with the GEF Operational Strategy and Operational Programme (OP) 4 for the ‘Biodiversity’ Focal Area: Mountain Ecosystems, while contributing to OP2: Freshwater Ecosystems, through the protection of wetlands.
143. The programme addresses the following elements of the GEF strategy:
- Threat Removal.** Removal of the specific causes of, or threats to, biodiversity loss;
 - Sectoral Integration.** Incorporation of biodiversity protection into the main productive sectors of the economy; integrated community development addressing livelihood issues of local and indigenous communities living in buffer zone areas of influence of conservation areas;
 - Sustainable Use.** Sustainable subsistence and land use practices; and
 - Institutional Strengthening.** Stronger institutions and well-trained staff to address these issues.
144. The programme offers an opportunity to show how biodiversity conservation objectives can be integrated into production sectors, and how landowners and industry can themselves ensure that their activities do not compromise ecosystem function.

2.6.2 Eligibility under the UN Convention on Biological Diversity (UNCBD)

145. South Africa ratified the UNCBD in 1992. The proposed programme will fulfil a number of provisions of the CBD, including Article 6, General Measures for Conservation and Sustainable Use, Article 7, Identification and Monitoring, Article 8, *In Situ* conservation, Article 10, Sustainable Use Management, Article 11, Incentive Measures, and Article 12, Capacity Building. The programme will play a critical role in achieving the 2010 Biodiversity Goals, especially in regard to the following goals: a) Promote the conservation of the biological diversity of ecosystems, habitats and biomes; b) Promote sustainable use and consumption; c) Pressures from habitat loss, land use change and degradation, and unsustainable water use, reduced; e) Address challenges to biodiversity from climate change, and pollution, and; f) Maintain capacity of ecosystems to deliver goods and services and support livelihoods. The programme intervention will contribute significantly to support South Africa to achieve these goals.

146. The programme will address a number of elements in the proposed thematic work programme on 'Mountain Ecosystems' with a focus on mainstreaming biodiversity in productive landscapes and sectors such as Agriculture, Forests and Mining. Linkages will also be made with the CBD guidelines on 'Dry and Sub-Humid Biodiversity' as well as 'Forest Biodiversity'. The programme also has relevance to the cross-cutting areas on 'Incentive Measures' as well as 'Sustainable Use of Biodiversity', 'Indicators' and 'Impact Assessment'.

2.6.3 Country Drivenness

147. The South African Government has a strong commitment to biodiversity conservation. It has signed and ratified a large number of international conventions, treaties, protocols and other agreements, including the Convention on Biological Diversity, which it became a signatory to in 1995. Since the early 1990s, South Africa's policy and legislative framework has been strongly influenced by these international agreements and the associated principles of sustainable development. A strong regulatory framework for environmental management has been established, with particularly innovative policies and legislation constructed for the protection of biodiversity in the Biodiversity Act (2005). The Constitution of South Africa provides for the right to a healthy environment and environmental protection while promoting justifiable economic and social development. South Africa is a strong supporter of African initiatives, such as the New Partnership for Africa's Development (NEPAD) which identifies biodiversity, desertification, and climate change as key issues in its Environmental Plan. South Africa is also committed to meeting the targets of the Johannesburg Plan of Action agreed at the 2002 World Summit on Sustainable Development.

148. The grasslands biome was identified as a strategic priority for conservation actions in the GEF Medium-Term Programme Priority Framework (DEAT, 2001) and the National Spatial Biodiversity Assessment (2005), a key element of the National Biodiversity Strategy and Action Plan. Recent steps that have been, or are being, taken that resonate positively for conservation include:

- The broadening of the legal mandate of SANBI from plants to cover all biodiversity;
- Incorporation of a National Biodiversity Framework that will allow Bioregional plans to be gazetted. This is designed to engender a better integration of biodiversity management needs into the development framework at the regional and local levels;
- The new EIA regulations that provide an opportunity for the information in Bioregional Plans and the listed threatened ecosystems to be linked into the EIA process;
- The release by National Treasury of the *Draft Policy Paper: A Framework for Considering Market-Based Instruments to Support Environmental Fiscal Reform in South Africa*;
- The increased support by government of the core costs of bioregional programmes such as CAPE, SKEP and the NGBP;
- An increased interest in conservation stewardship, illustrated by DEAT funding a national stewardship coordinator position located within the Endangered Wildlife Trust, the appointment of a stewardship coordinator in KZN Wildlife and increasing interest expressed by the MPTA.

149. The extent of government support for the NGBP is illustrated by the fact that formal letters of commitment and co-finance contributions have been pledged by all three spheres of government – national, provincial and local. Total Government co-financing for the NGBP will be \$27.34 million.

2.7 Linkages with UNDP Country Programme

150. The programme will contribute to meeting the objectives as set out in the UNDP Country Programme 2007-2010 for South Africa (CP 2007-2010), and will be implemented within the rubric of that framework. The programme falls under Objective B of the Country Programme 'Promoting Equitable Growth, Poverty Reduction and Sustainable Development'. The programme will contribute to Service Line 3.5 'Conservation and Sustainable Use of Biological Diversity', under Goal 3 'Managing Energy and Environment for Sustainable Development', of the Multi-Year Funding Framework 2004-2007 (MYFF 2004-2007). Furthermore, the programme is in line with the major development challenges identified in the United Nation's Common Country Assessment (CA) of development needs, prepared by the Government of South Africa in 2005. The CA underlines

biodiversity's critical role in providing for sustainable development and poverty alleviation. This will be facilitated by strengthening the capacities of national stakeholders to mainstream biodiversity in productive landscapes and sectors with a view to promoting economic development, environmental protection and sustainable livelihoods. The programme will also foster dynamic partnerships between public, private and civil society institutions.

151. In addition, the programme is in line with other international activities and regional programmes that have a bearing on UNDP work. In particular, it is in line with the *Millennium Development Goals* (MDGs) adopted by South Africa, especially MDG-7 on 'Environmental Sustainability', MDG-1 on 'Poverty Alleviation' and MDG-8 'Global Partnership for Development'. The data sets established by the Programme will help South Africa report on progress in meeting the targets set out in the MDGs pertaining to biodiversity conservation.

2.8 Linkages with GEF Financed Projects

152. The programme is highly complementary with a number of national GEF-funded biodiversity projects. The programme development team has worked in close collaboration with other project teams and relevant national and international partners to avoid any duplication and overlap between the initiatives, and to optimise synergies. Other GEF Biodiversity initiatives are all focused on conservation efforts elsewhere in South Africa, in other Major Habitat Types, address different conservation needs, and employ different strategies. None of the other GEF-sponsored projects are geared specifically towards mainstreaming conservation objectives into agriculture, forestry, urban development and coal mining sectors, as proposed under this programme. The project thus provides significant added value in terms of the contribution of the GEF to South Africa's national conservation agenda.
153. The NGBP will liaise closely with the "World Bank/UNDP-GEF CAPE Action for People and the Environment Project", which is a strategic intervention to secure the long-term conservation of the Cape Floristic Region. The CAPE is also designed as an umbrella programme, which includes a strategy to mainstream biodiversity in production landscapes. CAPE does not, however, specifically address mainstreaming objectives at vertical level within production sectors, focusing on mainstreaming biodiversity in cross sectoral development plans. The NGBP will also work in partnership with the "UNDP-GEF Agulhas Biodiversity Initiative" and synergies between the two initiatives shall be promoted, particularly with regard to the strengthening of institutional and policy contexts, awareness raising, facilitating payments for ecological services and the development of other financial incentives to promote conservation.
154. The NGBP will also collaborate with the "UNDP-GEF supported Conservation and Sustainable Use of Biodiversity on the South African Wild Coast Project". Both project teams shall for instance inform one another on co-management practice in communal and private land contexts. The NGBP is working with the "World Bank-GEF supported Maloti-Drakensberg Conservation and Development Project (MDTP)" which is a collaborative initiative between South Africa and the Kingdom of Lesotho to protect the exceptional biodiversity of the Drakensberg and Maloti mountains through conservation, sustainable resource use, and land-use and development planning. This project focuses on protected areas and tourism planning in the highest mountain areas of South Africa and Lesotho while the NGBP focuses on mainstreaming biodiversity into major production sectors across all of the grasslands biome. MDTP staff are involved in providing technical and conceptual inputs into the design of the NGBP.
155. Taken collectively, the GEF portfolio in South Africa makes a significant and highly strategic contribution towards strengthening the national institutional and policy framework, piloting innovative approaches to mainstreaming biodiversity in productive sectors as well as introducing new management paradigms, as needed to meet the conservation needs of different regions and ecosystems. The SANBI has been mandated under the biodiversity legislation with providing co-ordination services for a number of bioregional programmes and other initiatives active at a bio-regional level. This provides a mechanism for assuring cross-project synergy, and sharing lessons between projects. However project-to-project contact will also be facilitated, where relevant. UNDP

will continue to liaise closely with the World Bank and other relevant implementing agencies and partners in spearheading GEF activities in South Africa, with the aim of assuring complementarity.

2.9 Sustainability

156. The programme has been designed to optimize prospects for achieving sustainability of the outcomes. The strategy is designed to ensure that production sector institutions, including regulatory bodies and industry associations and leading companies, are capacitated with the necessary skills to protect biodiversity in the course of business operations. In other words, the production sectors themselves will become key vehicles for spearheading conservation initiatives in the grasslands. It is acknowledged that this result cannot be accomplished without attitude change. The intention is to work with champions in each sector to demonstrate win-win management schemes, which through industry recognition, market mechanisms, and knowledge management services will be self promoting within each of the target industries at large. A major outreach programme has been undertaken during the process of programme preparation, focused on production sector institutions including regulatory bodies, industry associations, and private enterprises. This has helped build confidence between these sector institutions and the conservation fraternity, a relationship that has in some sectors been marked historically by a mutual distrust. Such relationship building will be key to ensuring the continued commitment of production interests. A key element, cutting across all targeted sectors will be the roll out of a holistic incentive framework shown in the table below.

Table 7 Incentive Framework

Incentive options	Application / example	Sectors
<i>Regulatory</i>		
Rates exclusion for protected areas through Property Rates Act	Rates exclusions for protected areas, applies to all formally conserved land	All
Enforcing the conditions and regulations of environmental legislation to mitigate and control impacts	EIA process, conditions attached in development authorizations	All
Environmental fiscal reform	Tax rebates, removal of perverse incentives	All
<i>Optional</i>		
Marketing opportunities	Access to niche markets, increased marketability of environment good practice	All
Certification	Price premiums secured for good biodiversity practice (e.g. Forest Stewardship Council)	Agriculture, forestry
Development of compatible nature-based tourism enterprises	Eco-tourism activities linked to stewardship initiatives	Agriculture, forestry, urban
Biodiversity offsets	Equivalent biodiversity secured to offset loss of biodiversity due to production	All
Recognition award system	An awards system that recognises best practice will implemented by the Grasslands Programme. Existing award systems managed by other bioregional programmes and in production sectors will be adapted for use	All
<i>Negotiable</i>		
Technical and land management planning support from conservation agencies, incl. management of critical habitats	This can include support for alien weed management, fire management, advanced extension service, access to game animals	Agriculture, forestry, urban
Financial support from public works and donor funding	Poverty relief funding for conservation-related infrastructure, donor funding for biodiversity management activities	All

157. The different facets of sustainability are analyzed sectorally for each of the outcomes of the programme.

158. **Enabling environment.** The time is ripe to fill the policy implementation gap with the necessary plans, guidelines and tools. The technology and methodologies for biodiversity conservation planning are in place and the opportunity to align these with land-use planning and management systems in provincial and municipal governments is good. Stakeholders across the biome acknowledge the need for knowledge information management systems and data sharing.
159. **Mainstreaming into agriculture.** A long term perspective is required in this sector as it is the sector where the least collaboration has taken place between production and biodiversity interests. A comparative agricultural economics and trends assessment was undertaken during programme preparation. It provides an agricultural profile of the grasslands biome, comparative economic information on agricultural enterprises, and identifies key drivers that could result in non-transformed land being put under pressure. A key implication from the assessment within the grasslands biome is that macro level pressure for agricultural expansion in the grasslands biome is not likely in the next five years. This means that it is possible for the biodiversity establishment to ensure, through the mechanisms provided in the Biodiversity Act and Integrated Development Plans, that new cropping transformation takes place on old lands. A second study on the comparative impact of land uses, grazing systems and crop types on grassland biodiversity integrity found that livestock ranching and game farming are the most compatible land uses as well as being the most extensive land uses across the biome. The thrust of interventions in this industry is on uncovering benefits to landholders from improving land uses to assure greater conservation compatibility, through the generation of appropriate economic incentives (certification schemes and securing rates rebates for stewardship programs).
160. **Direct contribution by the forestry sector to biodiversity conservation.** This sector is more advanced regarding environmental issues and has an existing FSC certification system and industry standards. The receptiveness of the industry to the programme and agreement by the Industry Association Forestry South Africa to act as implementing agent for this sector is indicative of the commitment that exists. This commitment provides good fundamentals for achieving sustainability. Key regulatory drivers are already in place, in particular the stream flow reduction system. This provides incentives for the industry to improve the effectiveness of environmental management.
161. **Mainstreaming into Gauteng's economy.** One of the key elements of a sustainability strategy in this sector is the building of institutional capacity. The commitment by the provincial authority to act as implementing agent for this sector and involvement of all three metropolitan governments and the majority of district and local municipalities bode well for building programme sustainability. The high cost of regulating development is a constraint on sustainability. The NGBP will develop voluntary management schemes and market tools, as greenspace offset mechanisms to ensure that the highest biodiversity sites are protected as cost efficiently as possible.
162. **Securing biodiversity management in the coal mining sector.** Similar to the forestry sector, this is one sector where the need to comply with international environmental standards is understood by the industry. The industry is keen to engage around biodiversity, and this has been constrained more by the limited capacity of the biodiversity sector, rather than lack of willingness on its part. The focus of investment by the NGBP is on engendering the development of new market-based solutions to ensure more effective management on unmined land in the mining estate, and mitigate off-site impacts, such as impacts on wetlands. Wetlands mitigation banking is expected to provide a potent mechanism for both uncovering biodiversity values in this ecosystem, and also raising new sources of funding for land managers, including the Working for Wetlands programme.
163. **Climate change:** The impacts of climate change on biodiversity in South Africa are projected to be significant, but spatially variable. The summer rainfall biomes of eastern South Africa, including the grasslands biome, are expected to experience a temperature increase of between 1.5 and 3°C by between 2050 and 2100, using mid-range greenhouse gas emissions scenarios. Rainfall projections are very uncertain, being projected to decrease by up to 10% by a suite of global climate models, but with contrasting projections of a possible increase of a similar order if a regional downscaling modeling approach is used. Relative to the other South African biomes, the grasslands are expected to be more resilient to climate change in terms of the retention of their spatial coverage. This is almost certainly

because the increased temperatures and rainfall changes, although significant, remain within the bioclimatic range suitable for the dominant growth forms of the biome. Bioclimatic modeling, however, does not take into account two important issues, namely the direct effects of rising atmospheric CO₂ on plants, and the potential impacts of changing climate on fire regimes. While fire regimes might be slightly altered by the expected increased productivity of grasses under future higher temperatures, especially if rainfall increases, the direct effects of CO₂ are likely to be more significant in favoring the greater success of woody shrubs and trees. The effect is likely to be compounded by warmer winters, and may lead to greater rates of bush encroachment on the margins of the grasslands biome (WWF, 2001).

164. Projections of the effects of climate change on South Africa biota, including animal species, have identified grasslands as an important future habitat for many species from lower altitudes in the summer rainfall region. The high altitude of the biome makes this an important refuge for summer rainfall biota that require cooler conditions. This refugial function has been shown to be crucial for the persistence of biodiversity in times of past climate change, and thus greatly elevates the importance of biodiversity management efforts in the biome. Retention of a functioning grasslands biome is also crucial because of the water yield from this biome to the major rivers of this region. An invasion of larger-stature woody plants will threaten this important function, in addition to placing the highly diverse flora of this currently open system at risk. Apart from losing the ability to function as a watershed, suitable habitat for specialist grassland and wetland species may be lost. This could lead to an overall reduction in biodiversity and the loss of the provisioning function delivered by the ecosystem. Limiting the fragmentation of this habitat will become ever more important as a means to retain ecosystem function and allow greater resilience under conditions of climate change (www.sanbi.org/countrystudy).

165. The programme will accommodate these climate change issues by seeking to maintain corridors of natural habitat across climatic gradients to allow species to adapt changing climate. The fragmentation of ecosystems would foreclose adaptation under a changing climate. Priority corridors have been identified through the grasslands spatial assessment that if maintained in a natural state will therefore provide species and ecosystems with the ability to adapt to changing climate. In addition to maintaining these key sites the management activities proposed, such as fire management and alien invasive clearing will be adapted to include the potential impacts of climate change. In the agricultural sector, emphasis will be placed on rangeland management practice that is resilient to climate change impacts.

2.10 Replicability

166. The programme has been designed on a detailed identification and analysis of barriers to grassland biodiversity conservation and opportunities. It is built on lessons culled from similar initiatives across the world and incorporates best practices, while proposing further innovations.

167. The NGBP has developed specific strategies to maximize the impacts of activities at the landscape level, and is designed to have a catalytic effect. Because of the scale of the grasslands biome, interventions are needed at both macro and meso levels to inform policy, strategies and activities. A feedback loop will be created between macro level biome-wide interventions focused on creating the appropriate enabling environment, management tools and incentives, and demonstration interventions aimed at showing the application of these at a site level. Table 8 below identifies the needs and opportunities for replication and presents the planned replication strategy.

Table 8: Replication Strategies

Outcome	Need/Opportunities for Replication	Programme Strategy for Replication
Outcome 1: Enabling environment for biodiversity conservation in production	<ul style="list-style-type: none"> - Demonstrate value of ecosystem services and grassland biodiversity to economy and heritage - Integration of biodiversity priorities into planning system at three spheres of government - Strong core coordination and facilitation capacity in programme 	<ul style="list-style-type: none"> - Knowledge Management System - Data management system - M&E system - Collaborative Programme Governance structures - Exchange programme that facilitates sharing of experiences across sectors,

Outcome	Need/Opportunities for Replication	Programme Strategy for Replication
landscapes in the grasslands biome is strengthened		provinces and bioregional programmes - Lessons learning seminars - Use of institutional mainstreaming effectiveness tool to assess institutional capacity to replicate good practices
Outcome 2: Mainstream grassland biodiversity conservation objectives into agriculture	- Demonstration districts show implementation of incentives and biodiversity best management practice - Certification scheme would apply and be built across the country - Regulatory framework allows for incorporation of biodiversity best practice into policy and guidelines	- Lessons learnt shared within demonstration districts and to wider programme through knowledge management system - Feedback loop between demonstration projects and policy and guidelines that are taken up by industry and DoA - Communication strategy - Establishment of network of specialists to provide capacity, coordination of activities and knowledge sharing
Outcome 3: The forestry sector directly contributes to biodiversity conservation objectives in the grasslands biome	- Deepening biodiversity issues within industry norms and standards applies across plantations - One successfully proclaimed forestry owned and managed nature reserve will provide a catalyst	- Methodology and toolkit to establish reserve distributed through knowledge management system - Feedback loop between meso and macro level interventions - Communication strategy - Establishment of network of specialists to provide capacity, coordination of activities and knowledge sharing
Outcome 4: Grassland biodiversity management objectives mainstreamed into urban economy in Gauteng	- Global City Strategy and need for integration of planning systems between spheres of government - Demonstrate value of ecosystem services and biodiversity to Gauteng economy and heritage through: a) projects which secure refugia and fulfil socio-economic/heritage function; b) negotiated trade-offs with developers	- Development of toolkit based on demonstrations that enables other similar projects and development to occur - Working through champions at various levels: political, provincial and municipal government, private sector associations involved in property development process - Communication strategy
Outcome 5: Biodiversity management secured in coal mining sector	- Demonstration offset projects on wetland mitigation and mitigation banking - Regulatory framework allows for negotiated offsets to be incorporated in mining license conditions	- Lessons learnt from offsets projects on wetland mitigation and banking shared through knowledge management system - Feedback loop between demonstration projects and policy and guidelines that are taken up by industry and DME

2.11 Lessons Learned

168. An assessment of pertinent lessons and good practices has been undertaken during preparation of this programme, covering Bioregional Programmes in South Africa sponsored by the GEF, mainstreaming initiatives in the region, work done by the GEF Scientific and Technical Panel (STAP), and lessons collated through the Biodiversity Planning Support Program on forestry and agriculture.

Table 9: Lessons Learned

Lessons	Notes on South Africa	Design Feature
Cross Cutting		
A supportive policy and institutional framework is needed to encourage and sustain production sector investment in BD mainstreaming.	A strong macro policy framework is in place for biodiversity conservation. This makes provision for integrating biodiversity management and production sector planning frameworks and strategies. However, a gap exists between policy and application on the ground. Weak institutional capacities within the main production sector institutions	Capacitate production sector institutions to bridge the gap between policy and implementation.

Lessons	Notes on South Africa	Design Feature
	(ranging from regulatory authorities to industry associations to enterprises) inhibit effective integration.	
Regulatory drivers must be in place to protect the public interest where environmental benefits cannot be internalised. There must be effective enforcement of rules, and a perceived level playing field in enforcing compliance.	The regulatory framework for biodiversity management and production activities is in place, but its efficacy is compromised by a fragmentation in regulatory effort.	The Grasslands Programme will strengthen coordination between regulatory agencies (including national/ provincial and environment/ production).
The success and sustainability of biodiversity mainstreaming efforts is predicated to a great extent on the underlying cost-benefit calculus of intervention. The benefits accruing to the target sector must outweigh the costs.	There is a strong conservation fraternity and receptive private sector already investing in social and environmental responsibility programmes within major production sectors in the grasslands (especially mining and forestry). Codes of conduct established by mainstream businesses (particularly those listed on the Johannesburg Bourse) recognise that environmental responsibility is part of good business practice.	An emphasis is placed on ensuring cost-effectiveness – interventions that maximise conservation dividends per unit investment will be promoted. The cost benefit calculus of such intervention will be assessed through economic studies undertaken jointly with industry associations and businesses.
Stakeholders need to come to a common understanding of the objectives and <i>modus operandi</i> for 'mainstreaming'. Mechanisms need to be instituted to address conflicts.	Levels of tradeoff between production and conservation objectives need to be negotiated between the conservation sector and production interests. The negotiations will need to be informed by appropriate economic and biophysical information.	The programme explicitly recognises the need for tradeoffs between production sector and conservation objectives. The programme will work with champions (industry associations or specific enterprises) in each target sector to pilot good management practice. The intention is to demonstrate the utility of mainstreaming to the conservation fraternity and production interests.
Strong programme coordination facility is needed to ensure coherence in efforts across sectors and institutions, monitor progress in implementation and share information.	The lesson from other Bioregional programmes in South Africa is that it is essential to have well resourced coordination units, able to work across sectors and institutions.	The Programme Executing Agency SANBI has established strong capacities to coordinate the programme, as witnessed by the success of other Bioregional programmes that it manages. The institutional effectiveness of SANBI in performing this role has been assessed as part of programme preparation.
Urban		
The opportunity costs associated in protecting urban green spaces tend to be high. Tradeoffs will be necessary. Voluntary management schemes can complement 'command-and-control' by allowing developers to weigh the relative costs and benefits of different management responses in decision making. If carefully managed, this can improve the rate compliance.	Many urban areas in the South African grasslands are important repositories of biodiversity, and there is a need in these areas to integrate economic and ecological management objectives. There is a need to carefully define spatial biodiversity priorities, and to focus conservation efforts.	The programme focuses on changing attitudes in bodies responsible for regulating urban development, and amongst the developers themselves (i.e. city planners, architects and construction industry). Activities will expand the tool box available for decision making on the location of and the management of urban green spaces for biodiversity protection. This includes, <i>inter</i>

Lessons	Notes on South Africa	Design Feature
		<i>alia</i> , providing recognition for good development practices, and impact offset arrangements.
Plantation Forestry		
A green market place has evolved in the sector, underpinned by certification systems such as the Forest Stewardship Council. There is a need to recognise existing good practices and build on their success.	The plantation sector already demonstrates a high level of environmental awareness. This is the only sector in South Africa subject to streamflow reduction conditions, imposed on new developments.	The programme builds on existing certification schemes. These do not explicitly address management needs in the grasslands biome. The focus of interventions is on developing cost-effective management systems for unplanted land in the forestry estate—the management of which can be incorporated into existing management and marketing systems.
Agriculture		
Decisions to change land use should weigh the costs from change against risks. Biodiversity benefits to agriculture tend to be undervalued, an effect amplified by distortional subsidies.	South Africa has eliminated agricultural subsidies, reducing the distortional effects of Government policies. However, many ecological services, such as watershed protection remain non pecuniary and uncompensated. This implies that the total economic value of the grasslands ecosystem is not being accommodated in land use conversion decisions. The expansion of croplands is not considered to be a serious immediate threat in the grasslands, and the area under cultivation has actually retracted in some areas. However, changes in the price of fuel may stimulate demands for the cultivation of bio-fuel crops in the biome, implying that a watching brief is needed in this arena.	Programme to develop markets for ecological services (i.e. wetland mitigation banking) by strengthening the enabling environment and demonstrations. Stream flow reduction permitting systems are being introduced for certain cash crops (i.e. sugarcane), providing an impetus for market evolution. Programme will work with the agricultural sector, through regulatory agencies and industry bodies to influence the future location of bio-fuel plantations.
There is a need to diagnose the causes of biodiversity loss in different farming systems, and design abatement measures geared to the different needs, and accommodate the differential cost- benefit calculus of these systems.	There is a great diversity of farming systems and associated land use practices in the grasslands biome, and no common formulae for mainstreaming biodiversity management in the sector.	Mainstreaming strategies developed by the programme in association with partners in the agricultural sector accommodate this heterogeneity. Mass communications framework established using industry associations to make information available to landholders.
Mining		
There is a need to distinguish and address on-site and offsite impacts on biodiversity from mining.	Mining does not pose a substantial on-site threat to biodiversity in the grasslands, given that the actual area mined, even in open-cast operations, is relatively small. However mining companies are major landholders in the biome, and a number of biodiversity hotspots are located on these lands. The quality of the companies' stewardship of unmined land will accordingly have a bearing on the conservation status of the biome. The sector	Work with mining sector to improve stewardship of unmined lands held by the companies (i.e. through the creation of set-asides). Develop an enabling framework and test biodiversity offset schemes in threatened wetlands through induction of wetland mitigation banking.

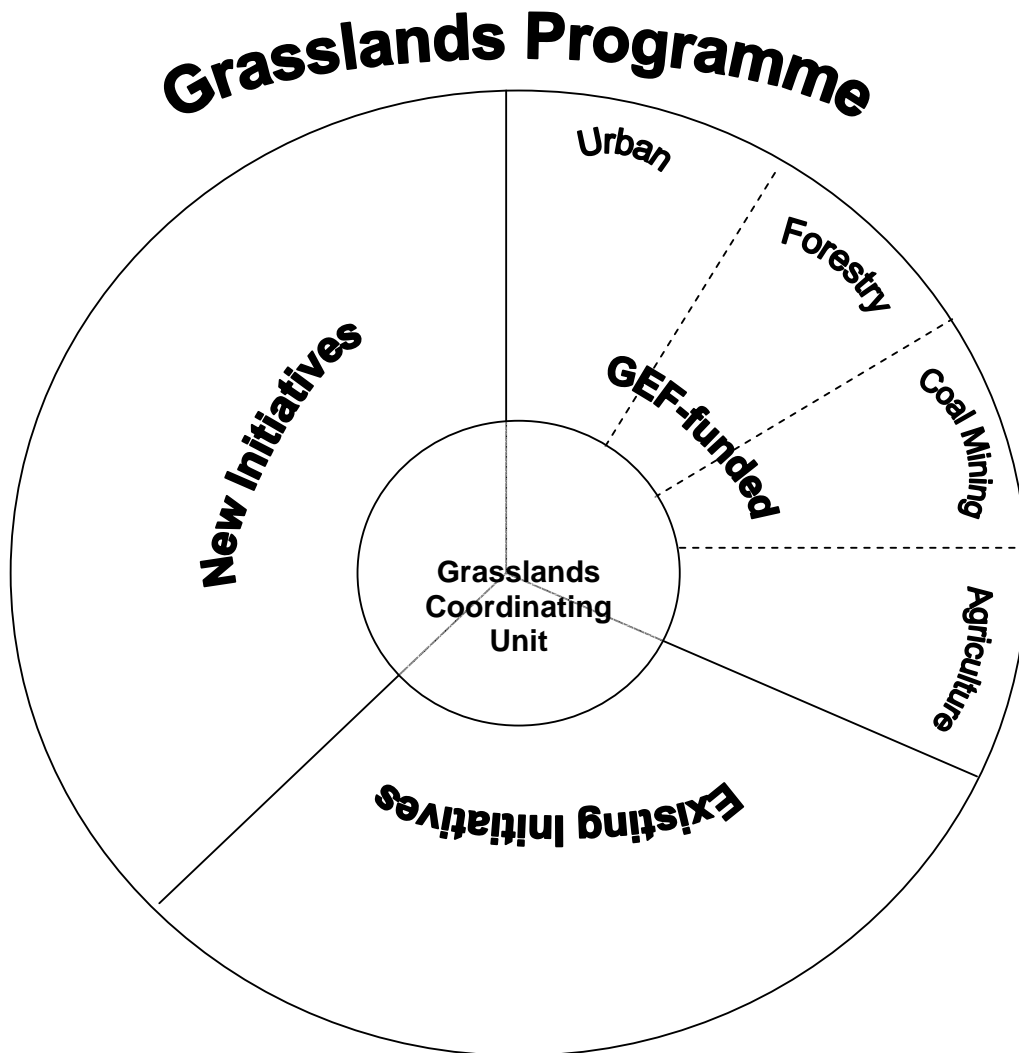
Lessons	Notes on South Africa	Design Feature
	imposes significant off-site impacts, particularly on wetlands affected by water abstraction.	

PART 3: Programme Management Arrangements

3.1 Execution and Implementation Arrangements

169. The NGBP is conceived as an umbrella programme for the grasslands biome as a whole. The overall goal/vision is that “the biodiversity and associated ecosystem services of the grasslands biome are sustained and secured for the benefit of current and future generations”. It has two essential elements. The first element is that which is supported by UNDP/GEF where the focus is on mainstreaming within agriculture, forestry, coal mining, and the urban sector, and the programme objective is “major production sectors are directly contributing to achievement of biodiversity conservation priorities in the grasslands biome”. This document sets out the focus of components under this element. The second element consists of a wide range of existing and planned interventions by other institutions who are working in the grasslands biome with the same vision but who will not receive direct support through UNDP/GEF. For the objective to be achieved, it is essential that stakeholders work in a coordinated fashion so that the whole effort comes to equal more than the sum of the parts. The umbrella nature of the NGBP is illustrated below.

Figure 1: Umbrella nature of the Grasslands Programme



170. The NGBP will be executed over a five year period by SANBI, in close consultation with all implementing agencies and relevant stakeholders, following UNDP guidelines for nationally executed programmes. As the Executing Agency, SANBI will sign the grant agreement with UNDP and will be accountable to UNDP for the disbursement of funds and the achievement of the programme objective and outcomes according to the approved work plan. In particular, the Executing Agency will be responsible for the following functions:

- (i) coordinating activities to ensure the delivery of agreed outcomes;
- (ii) certifying expenditures in line with approved budgets and work-plans;
- (iii) facilitating, monitoring and reporting on the procurement of inputs and delivery of outputs;
- (iv) coordinating interventions financed by GEF with other parallel interventions;
- (v) approval of Terms of Reference for consultants and tender documents for sub-contracted inputs; and
- (vi) reporting to UNDP on programme delivery and impact.

171. As the objective of the programme is to mainstream grassland biodiversity conservation objectives into production sector activities, a high level of involvement of these sectors is essential. For this reason the industry association Forestry SA will be the implementing agency for the forestry component. The urban outcome will be implemented in partnership with the Gauteng Provincial Governments Department of Agriculture, Conservation and Environment, which is responsible for land use planning. Due to the diversity and complexity of the agricultural sector, where there are many institutions representing different commodities, it is not feasible to have one implementing agent. SANBI will house an agricultural programme manager as part of the Grasslands Coordination Unit. The World Wildlife Fund-South Africa (WWF-SA) will be the implementing agent for the Wakkerstroom/Luneburg agricultural demonstration project. The Department of Water Affairs and Forestry (DWAF) supported by Bloem Water (who acts for DWAF as a procurement agent) will be the implementing agent for the Free State Inland River Ecosystem demonstration project. The Working for Wetlands programme which is housed within SANBI will take responsibility for coal mining component in partnership with the Grasslands Coordination Unit. SANBI will enter into contracts with these implementing agents.

172. The NGBP programme management arrangements comprises the following structures:

- The Grasslands Forum
- The Grasslands Steering Committee (GSC)
- The Grasslands Coordination Unit (GrassCo)
- The Grassland Urban Task Team
- The Grasslands Forestry Task Team
- The Grasslands Agricultural Task Team
- Grassland Demonstration District Task Teams
- Grassland Coal Mining Task Team

173. The *Grasslands Forum* is an open meeting of private, public, civil society, and academic institutions and individuals who are committed to the vision of the NGBP. At its latest meeting, there were over 70 participants from all seven provinces, the private sector and civil society. The Forum's function is to act as an information sharing and learning opportunity and a barometer to gauge programme progress and perceptions of success. It is the broader constituency that holds the Grasslands Coordination Unit accountable at a stakeholder level.

174. The *Grassland Steering Committee* (GSC) provides strategic direction and advice, and oversees and facilitates the design and implementation of the NGBP. It consists of the following institutions: DWAF, DEAT, DoA, AgriSA, Forestry South Africa, GDACE, UNDP/GEF, WWF-South Africa and SANBI. It meets approximately three times a year. It is chaired by SANBI.

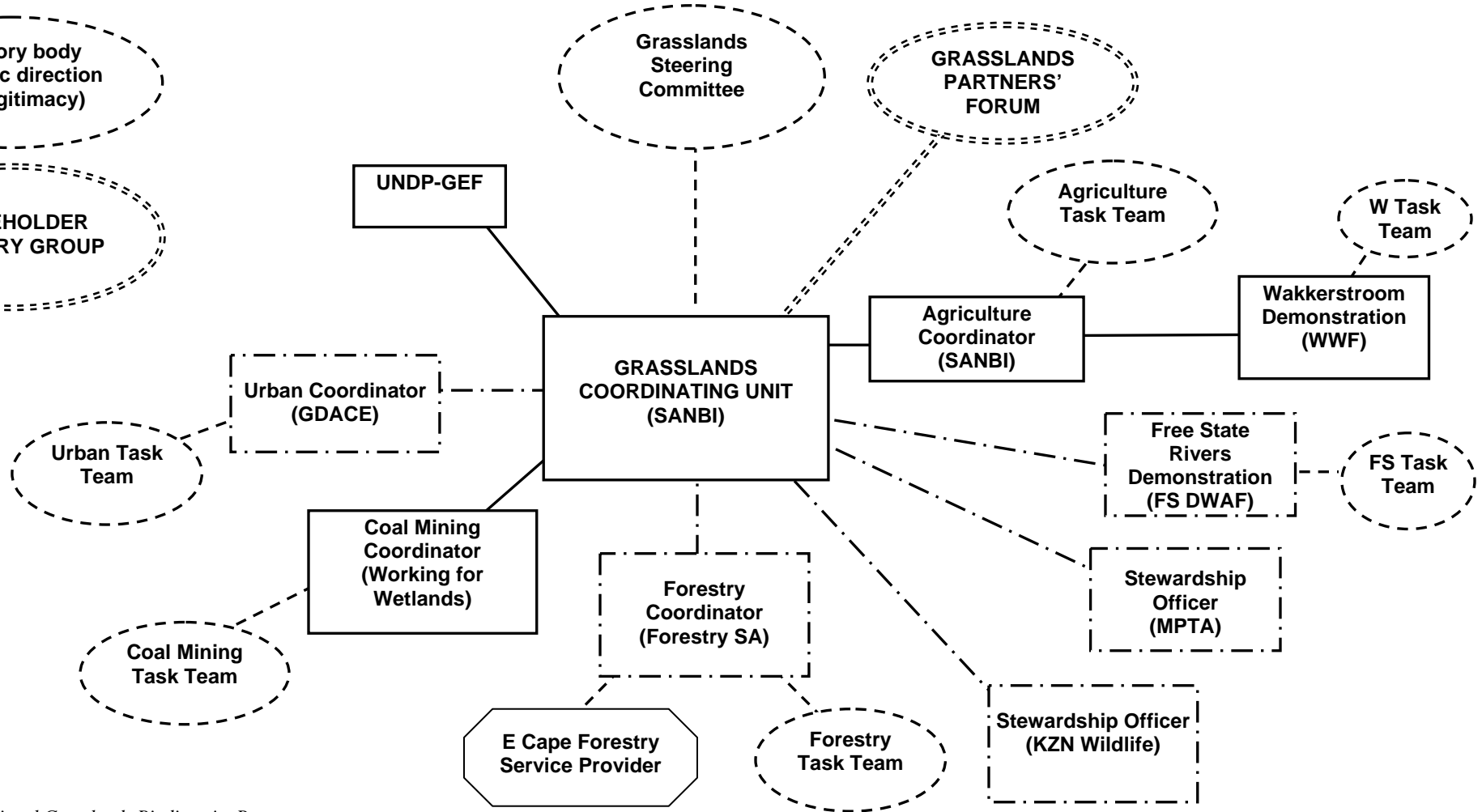
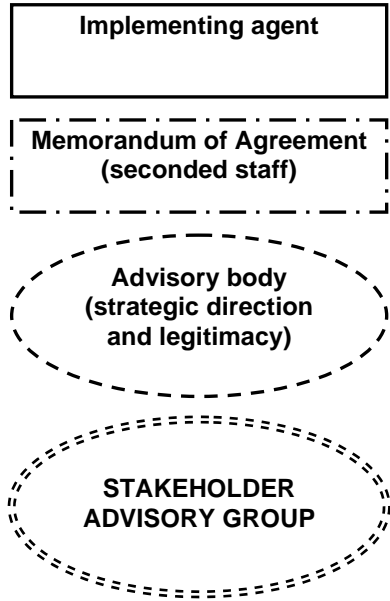
175. The *Grasslands Coordination Unit (GrassCo)* is housed within SANBI's Biodiversity Directorate based in Pretoria, reporting to SANBI's Biodiversity Director. The main functions that are being, and will be, undertaken are: programme coordination and leadership; leadership on macro level interventions particularly in the agricultural sector; development of annual and quarterly work plans and reports; management of implementing agencies and service providers including development of terms of reference and tender processes; donor liaison; communication; stakeholder liaison including establishment of protocols and processes for the umbrella programme; financial management, administration and reporting including maintaining accounting books and records required for sound financial record-keeping and internal control. During the design phase GrassCo was composed of a Programme Developer and Programme Coordinator. During implementation it will be composed of a Programme Manager, Programme Coordinator, and Finance Manager funded by GEF. Further to this, SANBI/DEAT will fund the following: Finance Assistant, Administration Assistant, Liaison Officer, Projects Developer, Research Fellows and Interns.
176. The *Grasslands Urban Task Team* was born out of the Urban Development and Biodiversity workshop that was attended by 74 people from 31 institutions, held in July 2005. The aim of the Urban Team is to fulfill a strategic direction and oversight role regarding the urban Gauteng-based component of the programme, to serve as a discussion forum for implementation of the Gauteng conservation plan, and to facilitate information sharing amongst its members and other stakeholders. Members are: GDACE, the three metropolitan municipalities, two district municipalities, two local municipalities, WESSA, IAIA and SANBI. The Grasslands Urban Task Team elected a member to represent the urban component on the Grassland Steering Committee. As GDACE is the Implementing Agent for the urban outcome, the urban Programme Manager and Grassland Ecologist funded by GEF will be located within GDACE's offices with administrative assistance, office space and logistical/communication support provided by GDACE.
177. A *Grasslands Forestry Task Team* was formed out of the Forestry Development and Grasslands Biodiversity workshop that was held on 28 September 2005. The team consists of representatives from: SANBI, DWAF, Forestry South Africa, large timber growers, small/emerging timber growers, medium timber growers, civil society, research institutions, and the three provincial conservation authorities most affected by forestry (Ezemvelo KZN Wildlife, Mpumalanga Parks and Tourism Agency, and the Eastern Cape Department of Economic Affairs and Environment). The design team has developed the high level log frame for the forestry component of the programme. It will continue during implementation to fulfil an oversight and strategic direction role. As FSA is the Implementing Agent for the forestry outcome, the Forestry Programme Manager and short term advisers funded by GEF will be located within Forestry SA's offices with administrative assistance, office space and logistical/communication support provided by FSA.
178. A *Grasslands Agriculture Task Team* is responsible to provide leadership and direction to the content of the agricultural component and to facilitate information sharing amongst its members and stakeholders. It has representation from the Agribusiness Chamber, AgriSA, NAFU, RPO, NERPO, Grain South Africa, Wildlife Ranching South Africa and the national Department of Agriculture. As there is no one agricultural institution acting as Implementing Agent for the whole agricultural outcome, the agricultural programme manager and part time agricultural economist funded by GEF will be located within SANBI. Resources to support the establishment of three stewardship officers positions, who will support both the forestry and agricultural outcomes, will be made available to the three provincial conservation authorities in KZN, Mpumalanga and the Eastern Cape. The details of the responsibilities of all involved will be set out in Memoranda of Agreement. A key aspect of this will be the commitment by the conservation authorities to take on future funding of these positions.
179. *Grassland Demonstration District Teams* will be formed as coordination and oversight mechanisms to ensure effective implementation at the agricultural demonstration-sites. For example, the demonstration district identified within the agricultural component in the Free State has established such an oversight structure with participation by the following organisations: DWAF, FSDTEEA, DoA, University of Free State, local farmers' association and SANBI.

180. A *Grassland Coal Mining Task Team* that will fulfil a similar oversight and strategic direction function as the other Teams is still to be established. Implementation of the coal mining outcome will be outsourced through an open tender process to an environmental institution active in the mining sector.

181. As the GEF implementing agency for this programme, UNDP will monitor all activities and outputs. UNDP will ensure that the activities are being conducted in co-ordination with the government and other stakeholders. UNDP will be ultimately accountable to GEF for programme delivery and responsible for supervising programme implementation. UNDP will provide technical backstopping services and monitor adherence to the work plan. The programme will comply with UNDP's monitoring, evaluation and reporting requirements, as spelled out in the UNDP User Guide.

Figure 2: Institutional arrangements for implementation

Key:



PART 4 : Monitoring and Evaluation Plan and Budget

4.1 Monitoring and Evaluation Plan

182. Programme monitoring and evaluation will be conducted in accordance with established UNDP and GEF procedures. The Logical Framework Matrix in Section II provides impact indicators for programme implementation along with their corresponding means of verification. The Monitoring and Evaluation Plan is appended (see Annex III). This provides: (i) a detailed explanation of the monitoring and reporting system for the programme; (ii) a presentation of the evaluation system; and (iii) a work plan and the budget for M&E.
183. The Programme Management Unit will be responsible for day-to-day monitoring activities. The Programme Manager will be responsible for the preparation of reports for the Steering Committee and UNDP on a regular basis, including the following: (i) Inception Report; (ii) Annual Project Report; (iii) Project Implementation Review; (iv) Quarterly Progress Reports; and (v) Programme Terminal Report. The objectives of these reports are detailed in Annex III. The Quarterly progress reports will provide a basis for managing programme disbursements. These reports will include a brief summary of the status of activities, explaining variances from the work plan, and presenting work-plans for each successive quarter for review and endorsement. The Annual Programme Report will be undertaken annually, and will entail a more detailed assessment of progress in implementation, using the set indicators. It will further evaluate the causes of successes and failures, and present a clear action plan for addressing problem areas for immediate implementation.
184. Annual Monitoring will occur through the *Tripartite Review (TPR)*. The TPR will be composed of representatives of the Government of South Africa, UNDP and the Programme. This will serve as the highest policy-level meeting of the parties directly involved in the implementation of the programme. The programme will be subject to Tripartite Review (TPR) at least once every year. The first such meeting will be held within the first twelve months of implementation. The programme proponent will prepare an Annual Programme Report (APR) and submit it to UNDP-CO and the UNDP-GEF regional office at least two weeks prior to the TPR for review and comments.
185. The programme will be subjected to at least two independent external evaluations:
186. Mid-term Evaluation - will be undertaken at the end of the second year of implementation. The Mid-Term Evaluation will determine progress being made towards the achievement of outcomes and will identify course correction if needed.
187. Final Evaluation - will take place three months prior to the terminal tripartite review meeting, and will focus on the same issues as the mid-term evaluation. The final evaluation will also look at impact and sustainability of results, including the contribution to capacity development and the achievement of global environmental goals.
188. The Government will provide the designated UNDP Resident Representative with certified periodic financial statements, and with an annual audit of the financial statements relating to the status of funds according to the established procedures set out in the Programming and Finance manuals. The Audit will be conducted by the legally recognized auditor of the Government, or by a commercial auditor engaged by the Government.

4.2 Budget and cost-effectiveness

189. Total programme: Total project financing amounts to US\$45.56 million excluding preparatory costs. Of this, the GEF will finance US\$ 8.3 million. Total co-financing amounts to US\$37.26 million broken down as follows:

Table 10: Outcome Budget (\$US, 5 years)

Outcome	GEF	GoSA	Private Sector	ENGO's	TOTAL
1. Enabling Environment	1,481,302	9,448,049	0	185,090	11,114,441
2. Agriculture	3,611,000	7,846,226	0	354,911	11,812,137
3. Forestry	1,140,666	2,517,403	6,260,854	179,197	10,098,120
4. Urban	719,678	4,524,416	0	32,070	5,276,165
5. Coal Mining	518,118	0	1,764,007	50,748	2,332,873
Project Management budget/cost	829,236	3,007,832	991,837	99,126	4,928,030
TOTAL	8,300,000	27,343,926	9,016,697	901,141	45,561,764

4.2.1 Cost effectiveness

190. **Enabling Environment:** Production activities that take little or no cognisance of biodiversity conservation in relevant or cross-sectoral plans, programmes and policies pose a risk to the ecological integrity of the grasslands. In a business-as-usual scenario, natural veld will be gradually transformed into cultivated lands, plantations, coal fields or urban settlements without due regard to biodiversity management considerations. This is likely to impose high economic costs by undermining environmental service provisioning capacities. In contrast, the costs of preventing ecological degradation from occurring in the first place are more modest. The NGBP will spearhead the precautionary principle in advancing interventions. Economic assessments will help inform the appropriate level of tradeoffs needed to secure environmental well being, while allowing for the pursuit of development objectives. This is expected to result in a more optimum employment of scarce conservation resources, and improve the chances that the initiatives these resources are committed to are sustainable.
191. This programme marks a departure from past efforts at biodiversity conservation in South Africa in that it seeks to engage, at a biome level, directly with production sectors and constituent public and private sector institutions in order to change attitudes and instil an appreciation of the dependence of the different sectors on biodiversity and ecosystem services. It is recognised that command-and-control systems are costly to implement at a large scale, and that where highly prescriptive, they can also impose high financial costs on production activities. The NGBP has been designed to allow production interests to weigh the costs and benefits of different mitigation options in assuring regulatory compliance with conservation statutes. This will include the option of off site impact offset arrangements (in circumstances where off site investments in conservation may be cheaper than on site investments). This is designed to improve the uptake and efficacy of conservation management within production processes. To ensure that environmental management objectives are not compromised in the process, attention will be paid in developing the necessary regulatory frameworks to ensure that the conservation value of offsets is greater than or at least equal to the value of the lands cleared for production purposes. This approach is expected to be cost effective in the long run by shifting the costs

of biodiversity conservation from government to the custodians and users of land and water resources in the grasslands.

192. **Agriculture:** The cost of integrating agricultural production with conservation planning and management programmes through the engagement of national and provincial level actors, including farmers, is less formidable than that associated with enforcing conservation approaches using a top-down regulatory approach. Engaging actors allows the sectors to drive and take ownership of innovative conservation initiatives based on the perceived benefits. This is only possible through inculcation of a wide appreciation of the monetary value of ecosystem services derived from the land user's immediate environment. The visible association between production imperatives and ecological capital will be critical to success. The NGBP focuses on promoting win-win land management strategies that simultaneously protect biodiversity and allow for production. Where this end cannot be accommodated, such as where habitat must be cleared for cultivation, the NGBP will influence the location of new farms. Stream flow reduction requirements are being gradually introduced for certain crops (i.e. sugar cane), and will complement Bioregional Plans in helping to regulate the spatial location for such investments. The economic cost benefit calculus of agriculture indicates that a major expansion of cultivation is unlikely to happen in the next five years, but with the development of new market opportunities (i.e. for bio-fuels) it is a risk over the long-term. The costs of planning support provided under the NGBP to ensure that land use planning for farm expansion accommodates conservation values is nominal, compared to the costs of land purchase for the creation of protected areas, or rehabilitation of ecosystems once damaged.
193. **Forestry:** The programme aims to complement and build on previous and current biodiversity conservation efforts by the forestry sector. The costs of neglecting the medium to small grower sector could, however, will erode the gains made by the sector's big growers through voluntary certification systems and adherence to environmentally-friendly management practices. The location of future medium to small grower plantations and their management warrants attention. Central to this area of focus will be the development of planning tools to guide decisions on forestry expansion. A further set of activities will aim at securing permanently unplanted natural forestry land for conservation, using regulatory and market instruments. This land forms part of the biodiversity bank consisting mainly of wetlands, riparian zones and indigenous forest. Such innovations will encourage all enterprise scales within the sector to incorporate the cost of biodiversity conservation within operations.
194. **Urban:** The costs of uncoordinated conservation efforts against a backdrop of immense pressure from urban development in Gauteng are high. However, this area has important conservation values that will need to be sustained. The cost of regulatory control and enforcement by government without the participation of the development sector is expensive and often unsustainable. The intervention strategy in the urban component aims at sharing the costs of protecting the most critical biodiversity hotspots between the State and land users. The development of urban greenspace offsets, complemented by a stronger land use planning system is expected to reduce the opportunity costs to developers of complying with environmental strictures, and thus ultimately, ensure a higher compliance rate in the industry.
195. **Coal mining:** The project seeks to harness support and investment from the coal mining industry in developing and managing off-site as opposed to on-site externalities. Interventions in this sector are designed with an understanding that the government and the affected sector have made substantial investments in mining and biodiversity initiatives and that the sector is highly capitalised and has a huge financial base. However, there is an unmet need to address off-site impacts, particularly on wetlands affected by water abstraction. Hence the emphasis will be on piloting wetland mitigation measures and a wetland mitigation banking scheme. The scheme will be designed to facilitate compliance with regulatory requirements by providing a mechanism for the restoration of wetland areas, in advance of anticipated losses. This way the impacts on biodiversity and associated costs will

be borne by mining companies, thus setting in place a process of standard setting capable of sustaining itself. The costs of piloting the scheme are modest in light of the expected conservation dividends.

4.2.3 Legal Context

196. This Project Document shall be the instrument referred to as such in Article I of the Standard Basic Assistance Agreement between the Government of South Africa and the United Nations Development Programme. The host country implementing agency shall, for the purpose of the Standard Basic Assistance Agreement, refer to the government co-operating agency described in that Agreement

197. The UNDP Resident Representative in South Africa is authorized to effect in writing the following types of revision to this Project Document, provided that he/she has verified the agreement thereto by the UNDP-GEF Unit and is assured that the other signatories to the Project Document have no objection to the proposed changes:

- a) Revision of, or addition to, any of the annexes to the Project Document;
- b) Revisions which do not involve significant changes in the immediate objectives, outputs or activities of the project, but are caused by the rearrangement of the inputs already agreed to or by cost increases due to inflation;
- c) Mandatory annual revisions, which re-phase the delivery of agreed, project inputs or increased expert or other costs due to inflation or take into account agency expenditure flexibility

SECTION II: STRATEGIC RESULTS FRAMEWORK AND GEF INCREMENT

PART 1 : Incremental Cost Analysis

National Development Objectives

198. Despite the substantial social and economic gains that South Africa has achieved over the past 12 years, it is still faced with high levels of poverty and unemployment in the formal sector. The Government of South Africa is presently placing emphasis on fostering growth and expanding employment opportunities. The Medium Term Expenditure Framework places a high emphasis on increasing investment and capital spending on economic infrastructure and social services. In addition, the Accelerated Growth Initiative (ASGISA) focuses on lifting barriers to economic growth. This centres attention on, among other issues, improving environmental governance and institutional effectiveness so as to ensure that necessary efforts to protect the environment are spearheaded effectively and do not create false inefficiencies. The Government is committed to environmental management as part of its social charter, and recognizes that ecological services make a huge contribution to development (though unquantified in the national accounts). The Government is, accordingly, seeking to balance the need for development on the one hand, with environmental management.

Global Environmental Objectives

199. South Africa is one of 17 megadiversity countries in the World, assessed on the strength of its floral diversity and endemism. South Africa's plant diversity is estimated at 23,420 species, representing 9% of the world total. The grasslands in South Africa are a very old, complex and slowly-evolved system

of diverse plant communities. The area is exceptionally rich in floristic diversity and harbours a very high diversity of indigenous species, second only to the Cape Floristic Region. The magnitude of South Africa's conservation challenge is amplified by its extraordinary species richness, and high beta and gamma diversity. There are a large number of priorities for conservation management, covering seven biomes and numerous habitats. While the Grasslands biome comprises such a conservation priority, the Government, acting unilaterally, is unable to wholly underwrite the high initial start up costs of conservation management in the immediate term. Only 2.8% of the biome is currently within the protected area estate. The high costs of land purchase to create protected areas, coupled with the biological heterogeneity of the grasslands implies that most species and habitats will continue to lie outside of protected areas, in production landscapes, and will need to be protected in situ therein. The project will establish the capacities needed to engender biodiversity conservation by creating new partnerships between conservation authorities, production sector bodies and the private sector to mainstream biodiversity management into production sector operations. The resultant prevention of increased rates of species extirpation and habitat fragmentation will yield high global environmental benefits.

Baseline Scenario

200. The threats to grasslands biodiversity, and their root causes are presented in Annex 1. A total investment of some US\$143 million will be provided by different national, provincial and local stakeholders over the next five years to address the multi-faceted threats facing grassland biodiversity in South Africa. The baseline is made up of diverse interventions being undertaken in the forestry, urban, agriculture and coal mining production sectors. A large part of the investment is based on conventional environmental management approaches and these investments are largely uncoordinated. The baseline investment is also geared towards underwriting biodiversity conservation efforts that will deliver certain domestic benefits³². It is not adequate to provide for the scale of conservation needed to protect biodiversity widely across the grasslands landscape, and thus to secure global environmental benefits. Nevertheless, the baseline forms an essential base upon which to pursue biodiversity mainstreaming objectives. The baseline is summarized below for each Programme Outcome³³.
201. Enabling Environment: Conservation Planning: The total baseline investment under this component is estimated at US\$13 million. This includes spending by government on SANBI's biodiversity planning responsibilities, including spatial planning undertakings and related capacity building, and associated spending by provincial authorities on conservation planning. The baseline includes funding allocated under the SANBI Working for Wetlands project to plan and negotiate measures for rehabilitating wetlands in the grasslands biome.
202. Agriculture: The total baseline investment under this component is estimated at US\$56.49 million. This includes investments of some US\$55.19 million by the National Department of Agriculture for programmes aimed at improving veld management, including landcare, emerging farmer settlement support and resource auditing. Included in the total baseline is a contribution by ENGO's worth US\$1.29 million, of which part is from the Botanical Society's Ekangala project located within the

³² These include recreational benefits, micro watershed management. Many- although not all of these measures-- are being undertaken to meet national regulatory standards. Accordingly they have tended to be applied at an enterprise scale, and left uncoordinated with similar conservation management initiatives.

³³ The systems boundary is set by the activities of production sectors in the grasslands biome. The spatial boundary for the baseline assessment, therefore, differs for each sector, depending on the amount of sector production land. However, the total spatial boundary for all sectors covers the biome in its entirety with the exception of the urban component, where investments outside of conservation hotspots have not been counted. Also excluded from the analysis are expenditures on protected areas outside the production landscape.

grasslands biome. This is earmarked as support for the national biodiversity stewardship programme and a sustainable sugar production initiative. The Ekangala Project will be one of the critical partners in implementing the NGBP. They are facilitating the process of involving farmers using creative stewardship approaches in conserving biodiversity in the threatened high altitude moist grasslands.

203. Forestry: The total baseline investment under this component is estimated at US\$19.14 million. This includes investments through the forestry association and by government to carry on conservation work in the forestry sector. A total investment of about US\$11.75 million from Forestry SA is the private sector's contribution in the development of several certification systems (small grower/SLIMF, national and FSC), work on improving fire management, and on clearing planted forests from important wetland and riparian areas. The investment demonstrates the strong commitment of the sector to addressing conservation issues. The NGO contribution is around US\$1.35 million, of which part is an input geared at facilitating WWF's participation on the national working group dealing with certification standards. The baseline excludes the general costs of health, safety and environment initiatives undertaken by forestry firms that have no associated dividend for grasslands biodiversity.
204. Biodiversity Conservation in an Urban Environment: Gauteng Province: The total baseline investment under this component is estimated at US\$55.13 million—the high sum reflecting the high costs of environment management in an urban setting. This includes investments through Gauteng's Provincial Department of Agriculture, Conservation and Environment of about US\$49.77 million for environmental assessments, EMF studies, resource protection permits and resource mapping. The baseline also includes an investment by Municipalities in the management of several small municipal protected areas. The baseline excludes the costs of general environment management in the urban environment, including waste management, sewage and sanitation services and health and safety management initiatives.
205. Mining: The total baseline investment under this component is estimated at US\$4.2 million. This includes investments through private sector donations to a public works programme of about US\$4 million in the form of wetland rehabilitation projects. However, this investment does not directly accommodate biodiversity conservation needs, and is focused mainly on water management. The NGO sector has also earmarked about US\$175,707 for engaging with the mining sector with a view to promoting conservation stewardship. The baseline excludes the costs of on site environmental management and mine rehabilitation, which are pursued as general environment management measures, and not with the intent of protecting biological diversity.

Alternative Strategy

206. The baseline investment in biodiversity conservation, while significant, will not be adequate to ensure that biodiversity conservation objectives are taken care of as an integral part of day-to-day production activities across the agriculture, forestry, urban and coal mining sectors. Apart from the typical pressures associated with urbanisation and investment, experienced in industrializing countries across the world, South Africa has further challenges stemming from the high inequalities and incidence of poverty. Expansion is therefore proposed in most production sectors, and this will, if left unattended pose a significant threat to grasslands biodiversity. The GEF Alternative aims at making a paradigm shift in conservation methods, moving beyond treating biodiversity conservation as an add-on activity to development towards actively engaging production sectors with a view towards accommodating biodiversity management in sector production practices. The GEF investment is aimed at creating a positive enabling environment to facilitate this shift in approach. The GEF contribution will contribute to the creation of capacity and coordination systems that will allow benefits from national investments in biodiversity conservation to be optimized. It is focused on acting as a catalyst at a strategic level in a context where a sound base already exists. The total incremental cost of the

Alternative Strategy is US\$45.56 million exclusive of preparatory assistance, for which GEF assistance of US\$8.3 million is requested³⁴.

207. Enabling environment for biodiversity conservation in production landscapes in the grasslands biome is strengthened: The incremental cost for this component is US\$11.1 million with requested GEF funding amounting to US\$1.48 million to ensure the mainstreaming of biodiversity management concerns into development planning processes, in particular through support for economic evaluations as an input in decision making processes. The government will commit an amount of US\$9.45 million toward strengthening the environmental governance system for grasslands conservation. Important elements of this will be the establishment of biodiversity indicators and accompanying monitoring and evaluation system. NGOs will provide some US\$185,090 to undertake biodiversity assessments, and undertake targeted advocacy work with production interests. The costs include spending on programme coordination within the Grassland Coordinating Unit (GCU).
208. Mainstream grassland biodiversity conservation objectives in agriculture in grasslands biome: The total incremental costs for this component are US\$11.81 million, of which the GEF will contribute US\$3.6 million. The National Department of Agriculture will contribute US\$7.84 million to policy activities focusing on strengthening veld management programmes, to specifically accommodate biodiversity concerns. The GEF will provide funding to demonstrate the usefulness of conservation stewardship approaches in agriculture. Findings will feed into the development of market incentives for biodiversity conservation in agriculture. GEF funding will also help to spatially delimit areas of high biodiversity value which will need to be ‘ring-fenced’ when plans are drawn up for future agriculture sector investments.
209. The forestry sector directly contributes to biodiversity conservation objectives in the grasslands biome: The total incremental cost for this component is US\$10.9 million with requested GEF funding amounting to US\$1.1 million. The Government will fund activities related to riparian zone clearing and wetland rehabilitation in forest areas. This work is important in terms of assuring stream flow integrity, and thus improving the conservation status of several important wetlands. The private sector will set aside approximately US\$6.2 million for strengthening the national forestry certification system and associated industry standards. This initiative links in closely with the project’s key mainstreaming principles— specifically that of regulating production activities through market incentives. Environmental NGOs will provide some US\$179,197 to engage with the national certification system working group and perform advocacy functions to protect certain ecologically sensitive areas. The GEF contribution will be applied towards improving fiscal and market incentives within the sector for biodiversity friendly production and conservation efforts. In addition, the GEF will also provide technical assistance to help regulatory authorities; municipalities and forest companies enter into compacts for the permanent conservation of unplanted forestry land.
210. Grassland biodiversity management objectives mainstreamed into urban economy in Gauteng: The total incremental cost for this component is US\$5.27 million with requested GEF funding of US\$719,678. The Government of South Africa will contribute US\$4.5 million for fine scale mapping of conservation values in the Province, and the establishment of protected zones. The GEF will help build the capacity of provincial and local authorities to coordinate conservation measures, and strengthen regulatory oversight in sensitive green spaces. The GEF will specifically fund the process of formally securing priority sites that have been identified within the urban areas. This will be achieved through an admixture of regulatory instruments and green space offsets, facilitated through planning applications.

³⁴ The GEF has invested US\$350,000 in preparatory assistance.

211. Grassland biodiversity management secured in coal mining sector: The total incremental cost for this component is US\$2.33 million with requested GEF funding of US\$518,118. The GEF will fund a barriers to establishing a pilot wetland mitigation banking system, including by establishing norms and standards for qualifying investments, strengthening planning systems and regulatory oversight and helping broker investments into the system by the private sector,. The GEF will also provide funds for technical assistance, provided to the Ministry of Mines to ensure that future expansion plans address biodiversity needs. The NGO sector will invest approximately US\$50,748 in keeping a watching brief on coal mining expansion in ecologically sensitive areas of Mpumalanga province. A contribution worth US\$1.76 million is planned by the private sector for the pilot wetland mitigation banking system³⁵.

Incremental Cost and Benefits

212. The incremental costs of the NGBP are the costs associated with lifting barriers towards mainstreaming biodiversity in four production sectors operating in the grasslands biome. Although the broader enabling environment is in place, barriers to mainstreaming biodiversity in production practices stem from market failure, whereby the benefits of biodiversity are not internalised in production prices, weak institutional capacities across the public and private sectors, and limited know how, regarding the specific manner in which production needs to be adapted to address biodiversity needs. South Africa would capture a portion of the benefits of conservation and has consequently agreed to co-finance a part of the incremental costs of the project in addition to absorbing the baseline. Incremental costs have thus been partitioned between the GEF and non-GEF sources. The GEF will fund activities with largely intangible benefits over the short term, such as capacity building, coordinating stakeholder activities to ensure better congruence in efforts, demonstrating new conservation approaches, including market based approaches, strengthening communications, and strengthening the information system. Investment heavy activities will be co-financed.

213. The baseline cost, incurred irrespective of the GEF support and which is undertaken primarily to produce domestic benefits and investments amounts to US\$143 million. The cost of the additional activities required to achieve the programme outcomes is estimated at US\$45.56 million of which the GEF would finance US\$8.3 million and co-financiers (local and international) would finance US\$37.26 million. PDF B project preparation costs amounted to US\$705,500 with US\$350,000 from GEF. The total cost of the Alternative Strategy, comprising of the total project costs and the baseline, excluding preparatory assistance is US\$189,011,907. The GEF contribution is a modest 4.4% of this aggregate.

Table 11: Incremental Cost Matrix

Outcome	Cost	Cost ('000 USD)		National Benefits	Global Benefits
Outcome 1: Enabling environment for biodiversity conservation in production landscapes is strengthened	Baseline	GoSA	12,817,288	- Improved environmental governance capacities (policies, legislation and institutional set up)	- Integrated policy, legal and market foundations for biodiversity conservation creates a better enabling environment for conservation
		ENGO's	303,704		
		Total	13,120,992		

³⁵ This captures the amount leveraged in managing the pilot offsets initiative, covering an area of 4000 hectares. The total expected investment by the private sector in offsets should the pilot prove successful is expected to be significant. However, as the investment is predicated on the results of the NGBP, and will be catalysed during implementation—it has been omitted from the scope of the incremental cost assessment.

Outcome	Cost	Cost ('000 USD)		National Benefits	Global Benefits
	Increment	GEF	1,481,302		
		GoSA	9,448,049		
		ENGO's	185,090		
		Total	11,114,441		
	Alternative	Total	25,942,540	- Integration of biodiversity management tools in sectoral planning and development improves the efficacy and cost efficiency of biodiversity conservation - Markets for ecological services cultivated, and provide incentives for compliance with environmental legislation and pursuit of good environmental practices by production sectors.	-Biodiversity hot spots of global importance have an improved status - Regular biological, social and economic assessment enables management to be adapted to maximise impact
Outcome 2: Mainstream grassland biodiversity conservation objectives into agriculture	Baseline			Agricultural extension services geared to optimizing land productivity.	Certain production impacts mitigated, such as the use of pesticides
		GoSA	55,196,823		
		ENGO's	1,294,586		
		Total	56,491,409		
	Increment	GEF	3,611,000		
		GoSA	7,846,226		
		ENGO's	354,911		
		Total	11,812,137		
	Alternative	Total	69,719,140	- Improved biodiversity conservation capacities safeguards ecosystem services vital to agriculture	- Integrated environmental governance system provides a foundation for adaptive land management to reduce BD loss in priority areas - High biodiversity areas 'ring fenced' from future sector expansion.
Outcome 3: The forestry sector directly contributes to biodiversity conservation objectives in the grasslands biome	Baseline	GoSA	6,046,878	- Enhanced environmental governance capacities for forest sector planning and management	- Improved policy foundations for forestry management create an enabling environment for integrating BD- friendly practices into production processes.
		Private Sector	11,752,593		
		ENGO's	1,350,477		
		Total	19,149,947		
	Increment	GEF	1,140,666		
		GoSA	2,517,403		
		Private Sector	6,260,854		
		ENGO's	179,197		

Outcome	Cost	Cost ('000 USD)		National Benefits	Global Benefits
		Total	10,098,120		
	Alternative	Total	30,276,235	- Shared management of hot spot areas reduces the costs of management to the state - Improved fiscal and market incentives for biodiversity friendly production and conservation increases areas under effective conservation management	- Total area of ecologically sensitive areas under effective and sustained conservation management increased - Biodiversity conservation objectives integrated cost-effectively in production activities of the forestry sector - Improved markets for biodiversity friendly produced goods
Outcome 4: Grassland biodiversity management objectives mainstreamed into urban economy in Gauteng		GoSA	49,770,497	- Enhanced environmental governance capacities for urban planning and management	- Integrated and efficient policy, legal and market foundations for environment management provides stronger baseline for pursuit of global BD imperatives
		ENGO's	360,340		
		Total	50,130,836		
		Increment			
		GEF	719,678		
		GoSA	4,524,416		
		ENGO's	32,070		
		Total	5,276,165		
	Alternative	Total	55,977,594	- Conservation of ecologically sensitive areas within the built environment included in land use planning processes and adopted by developers and urban authorities - Improved and aligned governance systems guided by provincial and local conservation plans - Monetary value of grassland ecosystems and biodiversity seen as part of the urban economy and used for planning	- Improved conservation status of ecologically sensitive area - Biodiversity conservation is integrated in urban development and management - Increased conservation status of endangered species
Outcome 5: Biodiversity management secured in coal mining sector		ENGO's	175,707	- Enhanced environmental governance capacities for coal mining planning and management	- Good environmental standards and receptive industry provide fertile grounds for testing innovative new conservation methods
		Private Sector	4,031,252		
		Total	4,206,959		
	Increment	GEF	518,118		
		ENGO's	50,748		
		Private Sector	1,764,007		
		Total	2,332,873		

Outcome	Cost	Cost ('000 USD)		National Benefits	Global Benefits
	Alternative	Total	6,746,398	<ul style="list-style-type: none"> - Improved fiscal and market incentives for biodiversity conservation increases areas under effective conservation management - Adaptive regulatory framework providing impetus for coal mining to integrate biodiversity imperatives in their operations and future expansion 	<ul style="list-style-type: none"> - Regulations reduce the impacts on globally important biodiversity from pollution and habit loss - Off site impacts on biodiversity reduced through offsets arrangements - Biodiversity concerns addressed by coal mining industry in future expansion

* Note: all increment figures in the Table 11 exclude project management costs.

Table 12: Summary Incremental Cost Matrix US\$

Grand Totals	Baseline	All Stakeholders	143,100,143
	Increment	GEF	8,300,000
		Non GEF	37,261,764
	Preparation	PDF B	350,000
		Alternative	189,011,907

PART 2: Logical Framework Analysis

Table 13 LFA with Programme Goal, Objective, Outcomes and Impact Indicators

Programme Strategy	Objectively verifiable indicators					
	Indicator	Baseline	Mid-term Target	End of Programme Target	Sources of verification	Risks and Assumptions
Goal: The biodiversity and associated ecosystem services of the grasslands biome are sustained and secured for the benefit of current and future generation						
Programme Objective: Major production sectors are directly contributing to the achievement of biodiversity conservation priorities	Contribution of NGBP towards achievement of biodiversity target for grasslands biome. The target is 22.3% of vegetation types within natural areas in the grasslands biome Biodiversity Intactness Index ³⁶	1.9%	2.6%	4%	Annual reports of SANBI and implementing agencies in the NGBP	Political stability, law and order are maintained; There is relative stability in South Africa's economic position
	Degradation indicator – percentage of biome degraded	65 11 – 20% based on expert opinion	No less than 1% of decline from baseline Timeframe too short to have mid-term indicator	No less than 2% of decline from baseline No major increase in degradation	NGBP M&E reports based on: - Biodiversity Intactness Index - Remote sensing and national land cover data - Site based monitoring in biodiversity priority areas	External pressures on grasslands biome remain within projected threat profile including the impact of human induced climate change The increase in the morbidity and mortality from the HIV/AIDS pandemic does not outpace the response capacity of healthcare services and institutions

³⁶ The BII developed for use in the Southern Africa Millennium Ecosystem Assessment is an indicator of the state of biological diversity within a geographic area. It uses spatial data on species richness and land use activities per ecosystem type to weight estimates, provided by taxon experts, of the reduction in abundance of all well known species under a range of land uses. Work done to date will be adapted through inputting new data on degradation levels and land use impacts within the grasslands biome.

Programme Strategy	Objectively verifiable indicators					
	Indicator	Baseline	Mid-term Target	End of Programme Target	Sources of verification	Risks and Assumptions
Outcome 1: Enabling environment for biodiversity conservation in production landscapes in the grasslands biome is strengthened	1.1 Bioregional plans for grasslands biome gazetted at appropriate levels	0%	15% of biome covered	45% of biome	Gazetted bioregional plans	Enabling legal and policy framework continues to supports effective cross sectoral institutional collaboration Implementing agencies and other key stakeholders continue to maintain a cooperative, collaborative working relationship that results in information sharing and knowledge management No undue delay in bioregional plans being gazetted
	1.2 Number of key affiliated private and public sector organisations that have entered into MoU with NGBP contributing towards conservation targets ³⁷	0	10 institutions	21 institutions	M&E reports	
	1.3 Institutional mainstreaming effectiveness scorecard SANBI GDACE, Forestry SA	Mainstreaming effectiveness scorecard has been developed 29% 28% 29%	51% 43% 46%	76% 72% 66%	Institutional effectiveness reports	
Outcome 2: Mainstream grassland biodiversity conservation objectives into agriculture	2.1 Agricultural laws, policies and guidelines incorporate biodiversity management objectives	Laws, policies and guidelines focus on production	Veld management guidelines for biodiversity on rangeland	Sustainable Land Use Management Act passed DWAF's SFRA includes some agricultural activities	Government gazette Agricultural policies and guidelines DWAF's SFRA list	Economic drivers of agriculture remain within projected scenario Predictable and measured roll out of land reform Conflicts in demonstration areas effectively managed and

³⁷ In forestry sector key institutions are DWAF, FSA; in agricultural sector key institutions are AgriSA, NAFU, RPO, NERPO & W.R.S.A.; in urban sector key institutions are GDACE, Jo'burg Tshwane & Ekurhuleni Metros; in coal sector key institutions are Chamber of Mines & specific company involved in off-set; for enabling environment key institutions are DEAT, MPB, KZN Wildlife, EC DEAET, NW DEAT, WESSA, EWT, Botanical Society, GSSA

Programme Strategy	Objectively verifiable indicators					
	Indicator	Baseline	Mid-term Target	End of Programme Target	Sources of verification	Risks and Assumptions
	2.2 Certification system and marketing programme in place for environmentally appropriately farmed red meat	None	Certification system approved by industry	Industry led marketing scheme for certified produce in place	Industry approved certification scheme	stakeholder social relations conducive to effective action Continued growth in demand for certified agricultural produce
	2.3 Amount of agricultural land in the grasslands biome where agricultural planning, decision making and extension incorporates biodiversity management objectives 2.3.1 Amount of land in demonstration districts where biodiversity management good practice (BMGP) is being implemented by farmers 2.3.2 Amount of land in demonstration districts within biodiversity priority areas where stewardship has secured land for biodiversity conservation	0 hectares	Amount of agricultural land in demonstration districts where: 1. BMGP is being implemented: 60 000 2. Stewardship has secured biodiversity: 9 000	Amount of agricultural land in demonstration districts where: 1. BMGP is being implemented: 180 000 2. Stewardship has secured biodiversity: 22 000	M&E reports - Remote sensing and national land cover data - Site based monitoring in biodiversity priority areas	Regulatory authorities within the agricultural and water sectors govern effectively

Programme Strategy	Objectively verifiable indicators					
	Indicator	Baseline	Mid-term Target	End of Programme Target	Sources of verification	Risks and Assumptions
	2.4 Knowledge about how to conserve and rehabilitate non-perennial river ecosystems and the impact of agriculture contributes towards the 20% river ecosystem type target within the grasslands biome	<p>Koranna Spruit classified at a class B level which contributes 2.07 % river length to the total class B level rivers in the Highveld (11.03) eco-region.</p> <p>Sepane Spruit classified at C+ level not contributing to the river ecosystem target.</p>	<p>Koranna Spruit retained at a class B level which contributes 2.07 % river length to the total class B level rivers in the Highveld (11.03) eco-region.</p> <p>Sepane Spruit partially improved from a class C moving towards a C+ level to contribute 2% river length to the total class C level rivers in the Highveld (11.03) eco-region</p>	<p>Koranna Spruit retained at a class B level which contributes 2.07 % river length to the total class B level rivers in the Highveld (11.03) eco-region.</p> <p>Sepane Spruit has improved from a class C to a C+ level to contribute 4.7 % river length to the total class C level rivers in the Highveld (11.03) eco-region.</p>	M&E reports - FS river ecosystem project	

Programme Strategy	Objectively verifiable indicators					
	Indicator	Baseline	Mid-term Target	End of Programme Target	Sources of verification	Risks and Assumptions
Outcome 3: The forestry sector directly contributes to biodiversity conservation objectives in the grasslands biome	3.1 Amount of forestry estate in grasslands biome under 3.1.1 Plantation 3.1.2 Options areas, i.e. existing unplanted forestry company owned land that is better managed 3.1.3 Formal conservation areas	Area of existing forestry estate in South Africa under 1. Plantation: 1.15 million ha 2. Basic management as unplanted land: 532,780 hectares 3. Formal conservation : 0 ha	Amount of forestry estate in South Africa under 1. Plantation: 10 000ha expansion; 5 000ha where clearing of riparian zones decreases size of plantation 2. Better management as unplanted land: 133,195hectares 3. Formal conservation: 15,000 hectares	Amount of forestry estate in South Africa under 1. Plantation: 20 000ha expansion; 10 000ha where clearing of riparian zones decreases size of plantation 2. Better management as unplanted land: 426,224 hectares 3. Formal conservation: 35,000 hectares	NGBP M&E reports based on: - Remote sensing and national land cover data - Site based monitoring in biodiversity priority areas Industry reports National Protected Area Register	Continued profitability of forestry industry is assured Continued growth in international market demand for environmentally certified forest products No material breakdown in the institutional relation between the key stakeholder groups (small growers, FSA, DWAF, EIA authorities) Regulatory authorities within the forestry sector continue to govern effectively
	3.2 No new plantation development in biodiversity priority areas within the grasslands biome	No formal definition of priority areas	Priority areas designated	No new plantations in designated priority areas	SANBI and DWAF GIS maps	

Programme Strategy	Objectively verifiable indicators					
	Indicator	Baseline	Mid-term Target	End of Programme Target	Sources of verification	Risks and Assumptions
	3.3 Industry certification system and standards better incorporate grassland biodiversity objectives	National FSC compliant Standard not yet set Grassland biodiversity not adequately reflected in FSC Principles & Criteria No small grower certification system successfully implemented	National FSC compliant Standard exist FSC Principles & Criteria incorporate grassland biodiversity objectives Sustainable forestry management system for small growers piloted	Small grower certification system implemented	FSC certification reports M&E reports	
Outcome 4: Grassland biodiversity management objectives mainstreamed into urban economy in Gauteng	4.1 Biodiversity priorities accommodated in municipal open space frameworks and spatial development frameworks	Overlap between c-plan and existing municipal SDFs and EMFs estimated at 40%	10% increase in overlap	20% increase in overlap	Gauteng conservation plan Municipal SDFs and EMFs	Continued buy-in to address biodiversity concerns in urban domain by political decision makers and private sector Programme builds and maintains effective coordination between departments and spheres of government
	4.2 Conservation areas give legal protection to refugia representative of grassland biodiversity	0	12 000ha	30 000ha	Legal documents	

Programme Strategy	Objectively verifiable indicators					
	Indicator	Baseline	Mid-term Target	End of Programme Target	Sources of verification	Risks and Assumptions
	4.3 Institutional mainstreaming effectiveness scorecard for GDACE, Tshwane MC, Ekurhuleni MC, Jo'burg MC, Mogale LM, West Rand DM, Sedibeng DM and Lesedi LM	Mainstreaming effectiveness scorecard has been developed and score will be determined before project implementation starts	12% increase in score	30% increase in score	Institutional effectiveness report	Restructuring of local government does not result in a significant loss of institutional memory Regulatory authorities within the urban sector continue to govern effectively
Outcome 5: Biodiversity management secured in coal mining sector	5.1 Amount of land where wetlands protected through wetland mitigation and/or banking offsets	0 ha of protected wetlands	800ha of wetlands protected through offsets	2 000ha of wetlands protected through offsets	Mining company reports	Extent of coal mining expansion remains within projected threat profile Pressures on government for delivery of economic growth amongst small growers does not result in environmental short cuts
	5.2 Biodiversity planning information used by mining companies and regulatory authorities to plan new coal mines	MBCP ³⁸ not yet adopted by provincial cabinet	MBCP used by Mp DME & 3 companies	MBCP used by Mp DME & all big companies	Maps showing location of coal mines has taken biodiversity priority sites into account	Environmental risks and liabilities provide driver for industry investment in environmental management

³⁸ MBCP = Mpumalanga Biodiversity Conservation Plan

SECTION III: Total Budget and Work plan

Award ID:	00045129
Award Title:	PIMS 2929 South Africa National Grasslands Biodiversity Programme
Business Unit:	ZAF10
Project ID:	00053253
Project Title:	PIMS 2929 National Grasslands Biodiversity Programme (NGBP)
Implementing Partner (Executing Agency)	South African National Biodiversity Institute (SANBI)

GEF Outcome/Atlas Activity	Responsible Party/ Implementing Agent	Fund ID	Donor Name	Atlas Budgetary Account Code	ATLAS Budget Description	Amount Year 1 (USD)	Amount Year 2 (USD)	Amount Year 3 (USD)	Amount Year 4 (USD)	Amount Year 5 (USD)	Total (USD)	See Budget Note:
OUTCOME 1: Enabling environment for biodiversity conservation in production landscapes in the grasslands biome is strengthened.	South African National Biodiversity Institute (SANBI)	62000	GEF	71200	Local Consultants	\$88,889	\$94,222	\$99,876	\$105,868	\$112,220	\$501,075	1
				71300	Contractual services	\$201,407	\$163,121	\$178,361	\$140,470	\$170,942	\$854,301	2
				74500	Miscellaneous Expenses	\$22,222	\$22,222	\$29,630	\$29,630	\$22,222	\$125,926	3
						Total Outcome 1	\$312,519	\$279,566	\$307,866	\$275,967	\$305,385	\$1,481,302
OUTCOME 2: Mainstream grasslands biodiversity conservation objectives into agriculture.	South African National Biodiversity Institute (SANBI)	62000	GEF	71200	Local Consultants	\$194,074	\$205,719	\$164,784	\$118,214	\$65,462	\$748,252	4
				71300	Contractual services	\$323,038	\$516,997	\$626,684	\$736,551	\$617,722	\$2,820,992	5
				74500	Miscellaneous Expenses	\$7,407	\$7,852	\$8,323	\$8,822	\$9,352	\$41,756	6
						Total Outcome 2	\$524,520	\$730,567	\$799,791	\$863,587	\$692,536	\$3,611,000
OUTCOME 3: The forestry sector directly contributes to	South African National Biodiversity Institute	62000	GEF	71200	Local Consultants	\$71,111	\$75,378	\$79,900	\$84,694	\$89,776	\$400,860	7
				71300	Contractual services	\$212,948	\$149,295	\$142,772	\$128,197	\$64,837	\$698,050	8
				74500	Miscellaneous Expenses	\$7,407	\$7,852	\$8,323	\$8,822	\$9,352	\$41,756	9

biodiversity objectives in the grasslands biome.	(SANBI)				Total Outcome 3	\$291,467	\$232,525	\$230,995	\$221,714	\$163,965	\$1,140,666	
OUTCOME 4: Grasslands biodiversity management objectives mainstreamed into urban economy in Gauteng.	South African National Biodiversity Institute (SANBI)	62000	GEF	71200	Local Consultants	\$48,889	\$51,822	\$54,932	\$58,227	\$61,721	\$275,591	10
				71300	Contractual services	\$127,677	\$119,256	\$103,271	\$54,712	\$22,468	\$427,385	11
				74500	Miscellaneous Expenses	\$2,963	\$3,141	\$3,329	\$3,529	\$3,741	\$16,702	12
						Total Outcome 4	\$179,529	\$174,219	\$161,532	\$116,468	\$87,930	\$719,678
OUTCOME 5: Biodiversity management secured in coal mining sector.	South African National Biodiversity Institute (SANBI)	62000	GEF	71200	Local Consultants	\$0	\$0	\$0	\$0	\$0	\$0	
				71300	Contractual services	\$103,704	\$118,519	\$103,704	\$88,889	\$74,074	\$488,889	13
				74500	Miscellaneous Expenses	\$5,185	\$5,496	\$5,826	\$6,176	\$6,546	\$29,229	14
						Total Outcome 5	\$108,889	\$124,015	\$109,530	\$95,065	\$80,620	\$518,118
Project's Own Operational Management (POOM)	South African National Biodiversity Institute (SANBI)	62000	GEF	71200	Local Consultants	\$126,326	\$133,905	\$141,940	\$150,456	\$159,484	\$712,111	15
				71300	Contractual services	\$0	\$0	\$0	\$0	\$0	\$0	
				71600	Travel	\$13,682	\$14,503	\$15,373	\$16,295	\$17,273	\$77,125	16
				72200	Equipment and Furniture	\$17,778	\$0	\$22,222	\$0	\$0	\$40,000	17
				74500	Miscellaneous Expenses	\$0	\$0	\$0	\$0	\$0	\$0	
						Total POOM	\$157,785	\$148,408	\$179,535	\$166,751	\$176,756	\$829,236

Summary of funds:

TOTAL	\$1,574,708	\$1,689,300	\$1,789,248	\$1,739,552	\$1,507,192	\$8,300,000	
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Summary of Funds

Donor name	Amount Year 2007 (USD)	Amount Year 2008 (USD)	Amount Year 2009 (USD)	Amount Year 2010 (USD)	Amount Year 2011 (USD)	TOTAL (USD)
GEF	1,574,708	1,689,300	1,789,248	1,739,552	1,507,192	8,300,000
Govt	6,821,844	5,043,567	6,087,299	4,737,557	4,653,659	27,343,926
GDACE	1,090,726	1,090,726	1,090,726	1,090,726	1,090,726	5,453,629
KZN Wildlife	171,852	171,852	171,852	171,852	171,852	859,259
SANBI	414,265	317,575	336,629	356,827	378,237	1,803,533
DWAF	422,695	422,695	422,695	422,695	422,695	2,113,473
DOA	1,113,535	1,198,125	1,228,531	1,169,545	1,187,287	5,897,024
Greening the Nation	2,683,198	951,491	1,721,379	0	0	5,356,068
MDTP	216,296	216,296	216,296	216,296	43,259	908,444
Ekurhuleni MM	84,658	42,839	43,096	43,355	43,615	257,563
Mogale City MM	263,540	90,055	95,458	101,185	107,256	657,494
Sedibeng DM	66,667	48,148	55,556	62,963	42,222	275,556
Working for Wetlands (govt)	294,412	493,766	705,082	1,102,113	1,166,510	3,761,883
ENGOS						
EWT	74,901	55,269	58,767	65,211	73,168	327,317
WWF	189,630	133,333	133,333	74,074	3,009	533,380
BotSoc	7,175	7,605	8,062	8,545	9,058	40,444
Private sector						
Forestry SA	1,383,733	1,332,622	1,386,030	1,439,437	1,492,844	7,034,667
Working for Wetlands (pvt)	356,886	456,563	442,168	377,922	348,491	1,982,030
Total co-finance	8,834,169	7,028,961	8,115,658	6,702,746	6,580,229	37,261,764
Co-finance & GEF	10,408,877	8,718,262	9,904,906	8,442,299	8,087,421	45,561,764

NOTES TO THE BUDGET

A. GENERAL NOTES

- **Note on consultancy rates:** Detailed costing and background information has been provided on consultants rates in **Annex A** to this TBWP.

B. SPECIFIC NOTES

OUTCOME 1: Enabling Environment

1. Local Consultants

1.1 Programme officer (240 contract weeks @ average \$1740 / week)

To manage all donor compliance and reporting requirements, manage monitoring, reporting and knowledge management requirements for the grasslands programme, support the development of local level projects and identify sources of funding, undertake various research projects as required and represent the Grasslands Programme and stand in for PM as required, including:

- Manage all donor compliance and reporting requirements. This will include writing programme narrative reports, producing donor reports for processing with financial reports in fulfilling external donor compliance and reporting requirements, working with the finance manager who will prepare the financial information, establishing and maintaining good donor relationships.
- Manage monitoring, reporting and knowledge management requirements for the grasslands programme. This will include working with SANBI's M&R Manager to ensure that the grassland programme's M&E system is developed and aligned with SANBI's overall system, manage the implementation of this M&R system ensuring the baseline is in place together with the system for required monitoring, to ensure that the appraisal, monitoring and evaluation of intervention projects are undertaken and completed according to donor and SANBI procedures and values and in doing so, to encourage a learning approach in all aspects of programme-based work involving the Grasslands Project and partner organisations.
- In line with SANBI's knowledge management system, put in place a knowledge management system for the umbrella grasslands programme that links to the M&R system and which facilitates learning and sharing
- Develop a mechanism that will support the development and alignment of local level projects that link to the strategic objectives of the programme and the poverty alleviation objectives of government. This will include researching how other bioregional programmes have supported the development of local level projects and lessons for the Grasslands Programme, identifying sources of funding
- Undertake various research projects as required

1.2 Communications Coordinator (240 contract weeks @ average \$1148 / week)

To manage and coordinate the communications, marketing and stakeholder and media relations function of the Grasslands Programme, including:

- Proactively engage all programme stakeholders (and their communications portfolios) from three main national government ministries to grassroots communities.

- Consistently engage with the public media and motivate for the appropriate media coverage of the Grasslands Programme, and thereby act as its spokesperson.
- Develop, manage and implement a wide range of communications outputs as described by the Communications Strategy of the Grasslands Programme. This includes managing numerous external service providers.
- Operate and accept the responsibility of top level management of the Grasslands Programme.
- Manage Component Coordinators in their communications outputs, as well as a junior communications professional.

2. Contractual services

2.1 Strategic Advisor (100 contract weeks @ \$2434 / week) on:

- (a) Policy and content: Support and advice on institutional arrangements and governance for the GP; Develop strategy and advise implementation regarding land issues and the GP; Provide policy inputs to GCU on key issues of direct relevance to the GP
- (b) Strategic advice and support to the management of GP: General support to GPM regarding management of the GP; Support fundraising; Represent GP as necessary
- (c) Annual review and recommendations: Take responsibility for an internal annual review of the GP; Contribute to the UNDP required external Mid-Term Evaluation and Final Evaluation;

2.2 Economic Valuation (24 contract weeks @ \$2434 / week) on:

(a) Drawing up a list of all goods and services derived from grasslands and categorise according to SEEA convention:

- Create official valuation database on all grassland goods and services
- Adjust these results, where needed, to be consistent to the SEEA framework. Detailed work is required to estimate intermediate costs, and the split between profit and “nature’s share” for different activities based on grassland ecosystems.
- Perform on-site valuation studies where gaps are occurring (e.g harvesting of non-cultivated timber, animal, crops and plants; nature-based tourism; game grazing, subsistence livestock grazing; indirect use values; option values; existence value of grasslands
- Use sound statistical techniques to aggregate and normalise results from various case studies into a comprehensive account. Estimating functional relationships between natural and anthropogenic pressure on grassland ecosystems and the quantity and quality of goods and services produced would enhance the capability to adjust accounts without the need to update case studies at too close, and costly, intervals.

2.3 Branding and Communications (100 contract weeks @ \$2074 / week) on:

(a) Communications management materials

- Website and newsletter

- banners
- brochures
- Grasslands Forums (annual) @ R20 000/annum
- Lessons Learnt publication
- Posters
- Billboard advertising (design, production and rental)

(b) Component communications materials

- Posters for each component
- Demonstration and awareness projects

(c) Independent communications review

2.4 Monitoring, Learning & Evaluation (100 contract weeks @ \$2874 / week – part local, part international consultants as per GEF requirements) for technical support towards the following M&E activities as outlined in the Programme Document:

- Project Inception workshop
- Measurement of Means of Verification for Project Purpose Indicators
- Measurement of Means of Verification for Project Progress and Performance (measured on an annual basis) + workshop for dissemination
- Conduct METT
- Periodic status reports
- Technical reports
- Mid-term External Evaluation
- Final External Evaluation
- Annual Lessons learned
- Annual Audit
- Visits to field sites (UNDP staff travel costs to be charged to IA fees)

3. Miscellaneous: Unforeseen expenditure in the Enabling Environment Component, mainly expected to cater for unforeseen need for hiring of equipment and transport, hospitality, venues for field meetings, unforeseen price increases, additional field expenses that were not expected at the outset, etc.

OUTCOME 2: Agriculture

4. Local Consultants:

4.1. Agriculture Coordinator (240 contract weeks @ 1217 / week) for:

To provide effective and efficient strategic leadership, management and coordination of the implementation of the agricultural component of the Grasslands Programme including:

- Strategic leadership to the implementation of the agriculture component of the Grasslands Programme
- Management of all agriculture component processes, deliverables, finances, procurement and contracting of service providers that results in the achievement of the programme outcomes

Management of contracted implementation agencies that fall under the agricultural component. These include BotSoc/WWF for the Wakkerstroom project; stewardship officers in KZN Wildlife and Mpumalanga Parks and Tourism Authority (MTPA); and an agency for the Free State river ecosystems project

- Effective management of relationships with a diverse range of partner's and stakeholders (private sector, public sector, NGOs and academic), resulting in their continued mobilisation and support of the programme. Particularly important are relationships with organised agricultures and departments of agriculture.

- Develop effective relationships with key agricultural decision makers, in both the public (political and administrative levels) and private sectors, so as to mainstream biodiversity into decisions.

- Leadership on content regarding mainstreaming biodiversity into agriculture; how to influence agricultural policy and affect implementation; how to mainstream biodiversity into red meat certification systems; how to secure conservation stewardship on private commercial farms and communal/land reform farms; how to build biodiversity awareness and capacity amongst agricultural decision makers; how to achieve trade offs between agricultural development and biodiversity and the building of linkages between poverty alleviation and biodiversity management

- Manage donor relations within the agricultural component including ensuring compliance to donor requirements; communicating key messages from Grasslands to both local and international donors; host regular donor visits; review donor strategies and lobbying government departments to align funding strategies to the Grasslands Programme

- Develop and implement a fundraising strategy which results in additional funding for the agricultural component

- Ensure effective financial management of donor funds for the agricultural component

- Ensure the coordination of implementation activities, through effective governance structures

- Raise the profile of the agricultural component of the Grasslands Programme through effective communications

4.2. Agriculture & Forestry Stewardship Officer - KZN (160 contract weeks @ \$940 / week)

- To coordinate and implement conservation stewardship activities in provincial biodiversity priority sites in KZN, based in EKZNW.

- The Stewardship Officer in KZN will be responsible to facilitate stewardship in the forestry sector in KZN. At a high level the following deliverables are required:

i) Facilitate all necessary processes within KZN to ensure that high priority biodiversity land within the forestry sector formally protected. This will involve the following steps: Consultation and Negotiation of Stewardship Agreements; Formalise consent to declare or register a voluntary conservation site; Decision to Declare; Declaration and Designation

ii) Facilitate all necessary processes within KZN to ensure that high priority biodiversity land within the agriculture sector formally is protected. This will involve the following steps: Consultation and Negotiation of Stewardship Agreements; Formalise consent to declare or register a voluntary conservation site; Decision to Declare; Declaration and Designation

4.3. Agriculture & Forestry Stewardship Officer – MTPA (160 contract weeks @ \$940 / week)

- To coordinate and implement conservation stewardship activities in provincial biodiversity priority sites in both agricultural and forestry owned land in Mpumalanga, based at MTPA. At a high level the following deliverables are required:

(i) Facilitate all necessary processes within MTPA to ensure that high priority biodiversity land within the Wakkerstroom agricultural demonstration project is formally protected through stewardship resulting in the declaration of 29 077 ha as protected environments or nature reserves. This will involve the following steps: Consultation and Negotiation of Stewardship Agreements; Formalise consent to declare or register a voluntary conservation site; Decision to Declare; Declaration and Designation

(ii) Facilitate all necessary processes within MTPA to ensure that high priority biodiversity land within the forestry sector in Mpumalanga is formally protected through stewardship resulting in the declaration of 29 077ha as protected environments or nature reserves. This will involve the following steps: Consultation and Negotiation of Stewardship Agreements; Formalise consent to declare or register a voluntary conservation site; Decision to Declare; Declaration and Designation

4.4. Agriculture & Forestry Stewardship Officer - EC DEAET (160 contract weeks @ \$940 / week)

- To coordinate and implement conservation stewardship activities in provincial biodiversity priority sites in E Cape, based EC DEAET. At a high level the following deliverables are required:

i) Facilitate all necessary processes within E Cape to ensure that high priority biodiversity land within the forestry sector formally protected. This will involve the following steps: Consultation and Negotiation of Stewardship Agreements; Formalise consent to declare or register a voluntary conservation site; Decision to Declare; Declaration and Designation

ii) Facilitate all necessary processes within E Cape to ensure that high priority biodiversity land within the agriculture sector formally is protected. This will involve the following steps: Consultation and Negotiation of Stewardship Agreements; Formalise consent to declare or register a voluntary conservation site; Decision to Declare; Declaration and Designation

5. Contractual services

5.1 Certification system design and marketing (263 contract weeks @ \$2874 / week) on:

(a) To further develop the findings of the initial study entitled: Strategic Feasibility Of Green Beef/Lamb/Game Certification Feasibility Assessment And Identification Of Opportunities For Programme Interventions including

- To explore and develop options for linking up with existing programmes (e.g. the Feedlot Associations Q-Sure model for beef and the Natural Lamb model for lamb), costs could be reduced considerably.

- To conduct a market assessment of implementing these recommendation

(b) To develop a detailed 5 year implementation plan based on further developed recommendations

- To implement the 5 year implementation plan in South Africa's red meat market working with the main industry bodies

(c) To develop and implement a detailed market strategy to promote a biodiversity friendly certification scheme/s in the red meat market

5.2 Incorporation of biodiversity management objectives into agricultural laws & policies (60 contract months @ \$4,320/month) on:

(a) To ensure that biodiversity management objectives are incorporated in agricultural laws and policies in South Africa. Specific focus is required on the following regulatory and policy issues:

- Authorisation for the ploughing or clearance of natural vegetation between CARA and NEMA Regulations

- Subdivision of agricultural land

- Ongoing input into the development of agricultural policy, such as the Industrial Biofuels Strategy, the Sustainable Use and Protection of Agricultural Resources (SUPAR) Bill, the Range and Forage Bill, and others

(b) To research and develop guidelines and policy recommendations on biodiversity good management practice (BGMP) focusing on the following key issues:

- Controlling stocking densities

- Protection of water sources, wetlands and rivers

- Fire regulation

- Grazing guidelines and "improvement" of pastures for grazing

(c) To raise awareness around and market relevant policy comment, guidelines and other materials emerging from these studies to ensure their input into policy and practice.

6. Miscellaneous: Unforeseen expenditure in the agriculture component, mainly expected to cater for unforeseen need for hiring of equipment and transport, hospitality, venues for field meetings, unforeseen price increases, additional field expenses that were not expected at the outset, etc.

OUTCOME 3: Forestry

7. Local consultants

7.1. Forestry coordinator (240 contract weeks @ \$1670 / week) for:

To provide effective and efficient strategic leadership, management and coordination of the implementation of the forestry component of the Grasslands Programme, hosted by Forestry South Africa, including:

- Strategic leadership to the implementation of the forestry component of the Grasslands Programme
- Management of all forestry component processes, deliverables, finances, procurement and contracting of service providers that results in the achievement of the programme outcomes
- Management of contracted implementation agencies that fall under the forestry component. These include joint management of the stewardship officers in KZN Wildlife and Mpumalanga Parks and Tourism Authority (MTPA); and E Cape DEAET
- Effective management of relationships with a diverse range of partner's and stakeholders (private sector, public sector, NGOs and academic), resulting in their continued mobilisation and support of the programme. Particularly important are relationships with forestry industry bodies and departments of forestry.
- Develop effective relationships with key forestry decision makers, in both the public (political and administrative levels) and private sectors, so as to mainstream biodiversity into decisions.
- Leadership on content regarding mainstreaming biodiversity into forestry; how to influence forestry policy and affect implementation; how to mainstream biodiversity into the management of the forestry estate; how to integrate biodiversity objectives into forestry certification schemes and processes; how to build capacity and integration of biodiversity management in the small growers sector; how to improve the management of the planted forestry estate and how to secure conservation stewardship on private commercial forestry estates; how to build biodiversity awareness and capacity amongst forestry decision makers; how to achieve trade offs between forestry development and biodiversity and the building of linkages between poverty alleviation and biodiversity management
- Manage donor relations within the forestry component including ensuring compliance to donor requirements; communicating key messages from Grasslands to both local and international donors; host regular donor visits; review donor strategies and lobbying government departments to align funding strategies to the Grasslands Programme
- Develop and implement a fundraising strategy which results in additional funding for the forestry component
- Ensure effective financial management of donor funds for the forestry component
- Ensure the coordination of implementation activities, through effective governance structures
- Raise the profile of the forestry component of the Grasslands Programme through effective communications

8. Contractual services

8.1 Field Officer - Small Growers (100 contract weeks @ \$835 / week) specifically focusing on:

- Development and implementation of a set of guidelines on biodiversity management objectives and practices for small growers
- Review and support to policy processes around small grower expansion and support
- Development and implementation of a training programme aimed at small growers to ensure biodiversity management is integrated into forestry management

8.2 Secure permanently unplanted forestry land (100 contract weeks @ \$1629 / week) specifically focusing on:

- Legal support and opinions needed in the declaration of biodiversity priority sites on privately-owned forestry land
- Technical support for biodiversity assessments of priority sites on privately-owned forestry land
- Technical support for development management plans for priority sites on privately-owned forestry land
- Technical support for GIS surveying and mapping
- Technical support for drawing up surveyed property descriptions of sites

8.3 Market mechanisms (50 contract weeks @ \$1481 / week) specifically focusing on

- Provide support to further integrate grassland biodiversity management into industry-led certification systems and standards. This will focus on the two initiatives currently underway, namely:(i) The National Forest Certification Initiative which seeks to develop a system based on South African characteristics; (ii) The FSC Plantation Review process
- Ensure small growers are integrated into the certification system with a key focus on ensuring that capacity and awareness is built amongst small growers to comply with and meet certification standards and implement operational guidelines

8.4 Management tools (50 contract weeks @ \$1777 / week)

- Review biodiversity best management practice on unplanted forestry land
- Develop guidelines on biodiversity best management practice on unplanted forestry land
- Develop training material and implement training programme to ensure a network of industry specialists mandated with providing extension support to companies and out-growers is trained to engender outreach to plantations and out-grower forestry schemes

8.5 Awareness (100 contract weeks @ \$1777 / week) including a focus on:

- Develop and implement targeted awareness raising programme aimed at the forestry sector decision makers to raise awareness around the importance of environmental management and dedicated capacity in the sector
- Raise awareness around conservation stewardship and the toolbox of management guidelines to implement stewardship on forestry owned land

- Research on case for biodiversity framed in terms of social and financial benefits and creating conditions favourable for companies to become champions for mainstreaming grassland biodiversity management.
 - Ensure awareness raising within the forestry industry, that identifies industry champions and deepens understanding through the various company departments. This will include presenting the case for biodiversity framed in terms of social and financial benefits and creating conditions favourable for companies to become champions for mainstreaming grassland biodiversity management.
 - Support to roll out and training of management tools
 - Support to roll out and awareness raising around biodiversity imperatives within industry certification schemes
 - Training and support around biodiversity priorities and management integrated into land reform post-settlement capacity building processes
9. Miscellaneous: Unforeseen expenditure in the forestry component, mainly expected to cater for unforeseen need for hiring of equipment and transport, hospitality, venues for field meetings, unforeseen price increases, additional field expenses that were not expected at the outset, etc.

OUTCOME 4: Urban

10. Local consultants

10.1. Urban coordinator (240 contract weeks @ \$1148 / week) for:

To provide effective and efficient strategic leadership, management and coordination of the implementation of the urban component of the Grasslands Programme within the Gauteng province, including:

- Strategic leadership to the implementation of the urban component of the Grasslands Programme
- Management of all urban component processes, deliverables, finances, procurement and contracting of service providers that results in the achievement of the programme outcomes
- Effective management of relationships with a diverse range of partner's and stakeholders (private sector, public sector, NGOs and academic), resulting in their continued mobilisation and support of the programme. Particularly important are relationships with municipalities and other provincial agencies in Gauteng.
- Develop effective relationships with key decision makers, at political and administrative levels, so as to mainstream biodiversity into decisions – networking and communication skills are key
- Leadership on content regarding mainstreaming biodiversity into the urban economy; how to build biodiversity awareness and capacity within decision makers; how to achieve trade offs between development and biodiversity and the building of linkages between poverty alleviation and biodiversity management; local government planning and decision-making; and intergovernmental relations
- Manage donor relations within the urban component including ensuring compliance to donor requirements; communicating key messages from Grasslands to both local and international donors; host regular donor visits; review donor strategies and lobbying government departments to align funding strategies to the Grasslands Programme

- Develop and implement a fundraising strategy which results in additional funding for the urban component
- Ensure effective financial management of donor funds for the urban component (including core funds raised through UNDP GEF and other donor sources still to be raised)
- Ensure the coordination of implementation activities, through effective governance structures
- Raise the profile of the urban component of the Grasslands programme through effective communications

11. Contractual services

11.1 Awareness (100 contract weeks @ \$2153 / week) for:

- To develop and implement a targeted awareness raising campaign around the importance of biodiversity and ecosystem services in urban areas
- To target specific messaging and awareness raising activities at key industry bodies in the urban sector (e.g. property developers, estate agents, impact assessors)
- To target specific messaging and awareness raising activities at key politicians in the urban sector to ensure specific outcomes (e.g. the integration of biodiversity into Gauteng's Global City Region strategy and future development planning)
- To target broad awareness raising at the public in Gauteng
- To raise awareness around the importance and biodiversity significance of the 12 priority sites in Gauteng, with particular events and promotional activities when sites are formally secured
- To support the roll out and implementation of the biodiversity toolkit

11.2 Management tools (100 contract weeks @ \$1481 / week) for:

- To develop a biodiversity toolkit that provides guidance for urban land-use planners, decision-makers and stakeholders around how to integrate biodiversity into their processes.
- The toolkit should focus on: improved access/availability of GIS info and coordination; Formal conservation of urban land; Info and guideline on stewardship options and incentives; Eco-estates; Financing "green" property development; Ecological footprints of development in sensitive sites; Green infrastructure; Trade-offs (negotiating urban off-sets, mitigation and banking of urban biodiversity sites); EIAs; Identification and development of further sections
- To design, produce and raise awareness around the toolkit
- To develop a training programme to ensure effective roll out and use of the toolkit

12. Miscellaneous: Unforeseen expenditure in the urban component, mainly expected to cater for unforeseen need for hiring of equipment and transport, hospitality, venues for field meetings, unforeseen price increases, additional field expenses that were not expected at the outset, etc.

OUTCOME 5: Coal mining

13. Contractual services

13.1 Offset pilots (240 contract weeks @ \$1543 / week) for:

- (a) Facilitate the roll out of a pilot wetland mitigation banking systems in collaboration between the public and private sectors
- (b) Establish appropriate institutional arrangements for the pilot and secure partnerships
- (c) Secure 2 000 ha of wetlands through offsets

13.2 Consultants (Industry standards, adoption of biodiversity in new & old, Incentives, principle of off sets, Management tools, Regulatory authorities to plan new coal mines) (90 contract weeks @ \$1316 / week) for:

- (a) Facilitate the use by regulatory authorities (DME, Provincial Environmental Planning) and mining companies of the Mpumalanga Biodiversity Conservation Planning to plan and approve new coal mines

14. Miscellaneous: Unforeseen expenditure in the urban component, mainly expected to cater for unforeseen need for hiring of equipment and transport, hospitality, venues for out of town meetings, unforeseen price increases, additional field expenses that were not expected at the outset, etc.

PROJECT'S OWN OPERATION AND MANAGEMENT

15. Local consultants

15.1. Programme Manager (240 contract weeks or 1200 contract days @ \$62.06 per day, to be increased at 6% per annum)

To provide effective and efficient strategic leadership and management of the implementation of the Grasslands Programme, a multi-faceted and multi-stakeholder bioregional programme over six provinces over five years, with over 20 key partner institutions and a core budget of \$8.3 million operationalising the conservation and sustainable development strategy for the Grasslands Biome, including:

- Strategic leadership to the implementation of the Grasslands Programme
- Management of all programme processes, deliverables, finances, procurement and contracting of service providers that results in the achievement of the programme outcomes
- Manage donor relations including ensuring compliance to donor requirements; communicating key messages from Grasslands to both local and international donors; host regular donor visits; review donor strategies and lobbying government departments to align funding strategies to the NGBP.
- Ensure effective financial management of donor funds (including core funds of \$8.3million from UNDP GEF and other donor sources still to be raised)
- Development and implement a fundraising strategy

- Ensure the coordination of implementation activities, through effective governance structures
- Effective management of relationships with a diverse range of partner's and stakeholders (private sector, public sector, NGOs and academic), resulting in their continued mobilisation and support of the programme
- Leadership on content regarding mainstreaming biodiversity into production sectors, how to achieve trade offs between development and biodiversity and linkages between poverty alleviation and biodiversity management
- Appointment and supervising of the staff within the Grasslands Coordination Unit and Sectors – grasslands programme officer; communications coordinator, finance manager, forestry coordinator, urban coordinator and agriculture coordinator

15.2. Finance Manager (240 contract weeks or 1200 contract days @ \$43.21 per day, to be increased at 6% per annum)

To effectively manage the finances (\$8.3m donor funds and \$36m co-finance aspects) of the Grasslands Programme, ensuring full compliance with donor requirements and coordination, reporting and management of funds disbursed through fund agreements to sub-implementing agents, including:

- To develop, implement and manage the overall financial management system for the programme using appropriate policies and procedures compatible with the SANBI's corporate system and with the requirements of specific funders and donors;
- To develop and implement controls over grant allocations and expenditure;
- To plan for procurement and to negotiate and monitor contracts and procure goods, civil works, consultancy and other services, and training for the programme in accordance with donor requirements and to maximum effect;
- To assist the Grasslands Programme to develop a monitoring and evaluation programme to measure the outputs and impacts of the Grasslands Programme;
- To identify, liaise with and negotiate with funders, donors, key government departments and investors regarding counterpart, co-financing and investment programmes with a view to establishing financial sustainability for the programme;
- To take responsibility for monthly, quarterly and annual financial procedures, budgets and reports and for the timeous submission of claims for reimbursement of project expenditures;
- To liaise with internal and external auditors;
- To guide and supervise the Admin Officer in respect of administrative support for management accounting, petty cash, procurement and reporting functions.

16. Travel: The Grasslands Programme will be managed from SANBI in Pretoria but has local demonstration projects as well as provincial and local implementing partners across the biome. The nature of this managing this Programme effectively will require regular travel to project sites, implementing partners and other stakeholders. Travel expenses for the Grasslands Coordination Unit will involve travel for all local consultants (incl. Grasslands Programme Manager, Grasslands Programme Officer, Finance Manager and Communications Coordinator, Admin Officer as well as short term consultants).

Travel costs have been budgeted as follows:

Approximately four trips per year for project consultants to each of the following locations are anticipated. The purposes of the trips are noted for each location and persons traveling may be between 1 and 3 people.

- Cape Town (Western Cape) – meetings at SANBI offices for planning, administration and management (see A below)
- Nelspruit (Mpumalanga) – meetings with Mpumalanga Tourism and Parks Agency – provincial implementing partner (see A below)
- Wakkerstroom (Mpumalanga) – meetings and field visits with land owners and other stakeholders in Wakkerstroom / Luneburg demonstration project (see A below)
- Pietermaritzburg (Kwa Zulu-Natal) – meetings with Forestry South Africa, implementing partner for Forestry Component and other forestry stakeholders (see A below)
- Durban (Kwa Zulu-Natal) – meetings with forestry and agriculture stakeholders around the implementation of stewardship activities (see A below)
- Bloemfontein (Free State) – field visits and meetings with local and provincial agencies (e.g. FS DWAF, local government) for the implementation of the Free State Rivers Ecosystem Demonstration Project (see A below)
- East London (Eastern Cape) – meetings and field visits with forestry and agriculture stakeholders around the implementation of stewardship activities (see A below)
- Port Elizabeth (Eastern Cape) – meetings and field visits with forestry and agriculture stakeholders around the implementation of stewardship activities (see A below)
- Witbank (Mpumalanga) – meetings related to the implementation of the Coal Mining Component and wetland mitigation banking projects (see A below)
- Local travel to project field sites from main centre or local airport (e.g. stewardship sites in Kwa Zulu-Natal, Mpumalanga, Free State, Gauteng) (see B below)
- Pretoria – travel for project consultants and partners to the Grasslands Coordination Unit at SANBI in Pretoria for regular Programme Management, Grasslands Partners Forum (annual), Steering Committee and Task Team meetings (see C below)

These trips have been costed as follows (amounts used in the budget increase at 6% per annum):

(A) Mission costs by air, per trip:

<u>Cost item</u>	<u>Amount ZAR</u>	<u>Amount USD</u>
Flight ticket	2,120	314
Accomm and food for 2 days	1,272	188
Car hire	636	94
Airport shuttle	382	57
Total	4,410	653

(B) Mission costs by road, per trip:

<u>Cost item</u>	<u>Amount ZAR</u>	<u>Amount USD</u>
Road travel, ave distance 600km	957	142
Accomm and food for 2 days	1,272	188
Total	2,229	330

(C) Programme meeting:

<u>Cost item</u>	<u>Amount ZAR</u>	<u>Amount USD</u>
Flights for 3 people	6,360	942
Shuttle - 6 trips	1,145	170
Catering	1,060	157
Total	8,565	1,269

All travel expenses have been costed using these amounts and destinations.

17. Equipment: Equipment covers the purchase of limited essential equipment, including computers and other IT hardware, office sundries, and other unforeseen equipment items that are essential to project implementation and delivery.

Annex A: Note to budget on rates charged by consultants in South Africa

A.1. In South Africa salaries in the private sector and in government are comparable to developed countries. The South African government has benchmarked *hourly* rates for consultants in guidelines that are applied to all consultancy services procured by government departments. These rates are higher than those provided below by the UNDP as a guideline within which the rates for consultants used in the Grasslands Programme fall (see attached DPSA schedule, fig 1).

A.2. The Grasslands Programme requires consultants for specific assignments. These services have been split into two categories:

- Long term, ongoing consultancy appointments focused on technical support to implementation, which have a lower daily consultants rate dependent on the local fee market
- Short-term consultants required for specific and strategic deliverables requiring specialist technical skills, which have a higher daily rate. These rates fall within the UNDP approved consultants rates for South Africa provided by the UNDP South African Country Office (see attached schedule of payment rates, fig 2).

Figure 1: Hourly Fee Rates set by the South African Government with effect from 1 January 2007



Hourly Fee Rates For Consultants - With effect from 1 January 2007

Salary Band	Average Total Package	Model A Short Term				Model B Long Term			
		Option A 1 All Overheads		Option A 2 Partial Overheads		Option B 1 All Overheads		Option B 2 Partial Overheads	
		A 1.1 Mark-up	A 1.2 No Mark-up	A 2.1 Mark-up	A 2.2 No Mark-up	B 1.1 Mark-up	B 1.2 No Mark-up	B 2.1 Mark-up	B 2.2 No Mark-up
16	957,637	1,915	1,475	1,647	1,264	None	None	None	None
15 / 16	850,986	1,702	1,311	1,464	1,123	1,404	1,081	1,208	928
15	744,335	1,489	1,146	1,280	983	1,228	945	1,057	811
14 / 15	679,168	1,358	1,046	1,168	897	1,121	863	964	740
14	614,001	1,228	946	1,056	810	1,013	780	872	669
13 / 14	567,908	1,136	875	977	750	937	721	806	619
13	521,815	1,044	804	898	689	861	663	741	569
12 / 13	411,393	679	522	584	448	609	469	522	399
12	369,985	610	470	525	403	548	422	470	359
11 / 12	341,067	563	433	484	372	505	389	433	331
11	312,148	515	396	443	340	462	356	396	303
10 / 11	284,378	469	361	404	310	421	324	361	276
10	256,608	380	293	326	249	359	277	308	239
9 / 10	232,789	345	265	296	226	326	251	279	216
6 to 8	148,386	220	169	188	144	208	160	178	138

How to determine the appropriate fee rate

1. Determine the consultancy option/model by applying the following criteria:

"Short Term" means less than 60 consulting days

"Long Term" means more than 60 consulting days

"All Overheads" means consultant provides all overheads e.g., office, parking, telephone

"Partial Overheads" means department provides some overheads e.g. office, parking, telephone

"Mark-up" provides for company profit margin - service normally provided by consulting company

"No Mark-up" service normally provided by individuals or NGOs

2. Determine the appropriate salary band based on the level of work that is required e.g., use job evaluation to determine the level of work - Salary band 13 represents the level of a Director in the public service, 14 a Chief Director, 15 a DDG and 16 a DG.

3. The hourly fee rate should be read where the consultancy option/model intersects with the salary band.

Note - The Guide on Hourly Fee Rates for Consultants and the latest Fee Rates are available at <http://www.dpsa.gov.za> and can be found under Document Archive, All Documents.

Link <http://www.dpsa.gov.za/documents.asp>

Figure 2: Fee Rates set by the UNDP in South Africa



31 July 2007

Payment Rates

As a guiding principle, the fees payable should be based on the minimum amount necessary to obtain quality services for UNDP. The principal consideration however is the nature of the assignment, the complexity, difficulty and extent of the work to be performed and the degree of expertise required to accomplish it. As a benchmark, the range of negotiating rates for individual contractors are established by OLPS and are represented below:

Consultant's level	Complexity; Degree of Expertise; Availability	Candidate's Equivalent level, Qualifications and Experience	RANGE OF DAILY RATE IN USD
A	Junior Specialist	ICSC-8 to ICSC-9 P/L-1 to P/L-2	200-300
B	Specialist	ICSC-10 to ICSC-12 P/L-3 to P/L-5	300-550
C	Senior Specialist	ICSC-13 to ICSC-15 D-1/L-6 to ASG	550-750

Fees are to be established by combining appropriate amounts of Elements I and II, as described below. Element I reflects the degree of expertise required to fulfil the TORs, as well as the availability of persons who have such expertise. Element II, on the other hand, reflects the candidates relevant qualifications and experience.

SECTION IV: Additional Information

PART I: OTHER AGREEMENTS (See separate file)

- 1. Letters of Financial Commitment
- 2. MOU with Executing Agency
- 3. Other official agreements

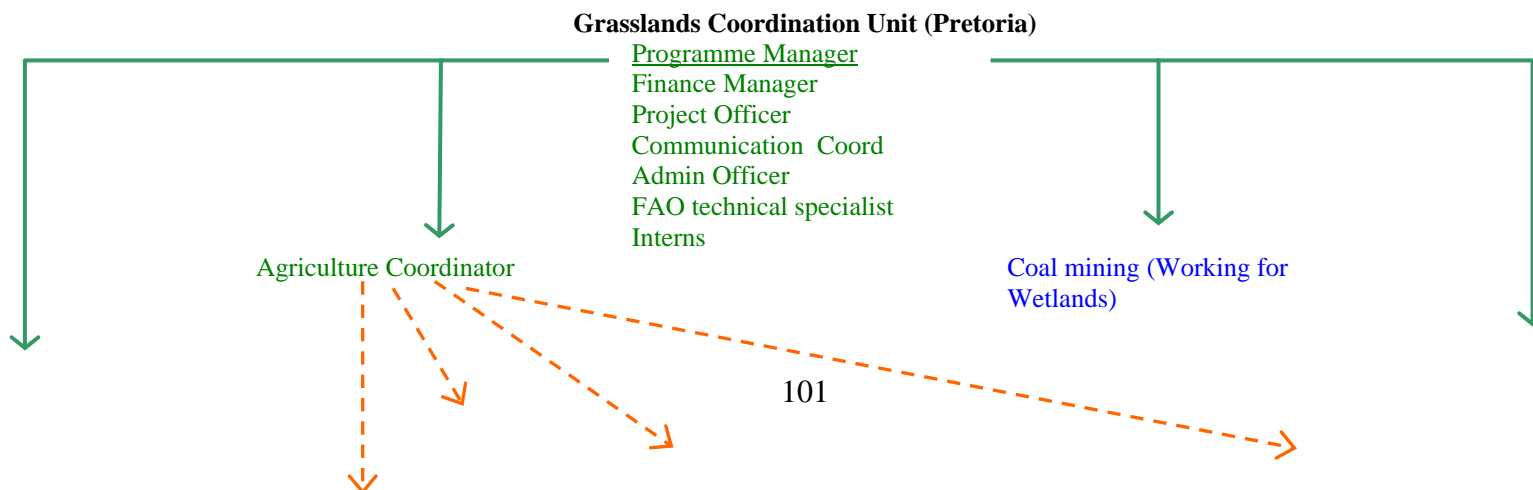
ART III: TERMS OF REFERENCE FOR KEY PROJECT LOCAL CONSULTANTS

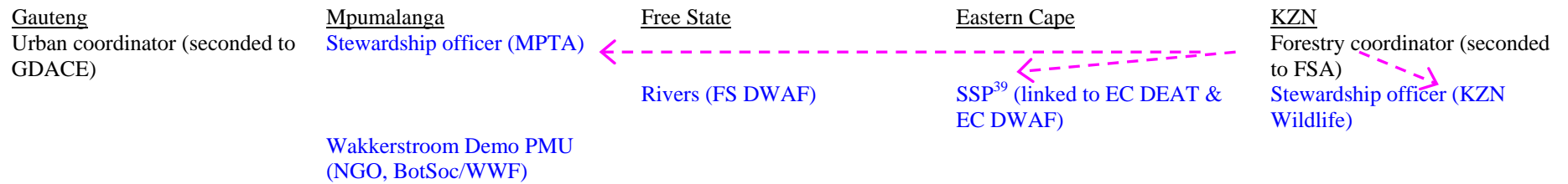
1. Grasslands Coordination Unit

SANBI is establishing a Grasslands Coordination Unit (GCU), which will be responsible for implementation of the Grasslands programme. The GCU will be based at SANBI's Pretoria offices, reporting to the Chief Directorate Biodiversity. As the programme is implemented through partnerships, human resourcing arrangements can be divided into three kinds – core local consultants utilised by SANBI and funded by SANBI/GEF; key local consultants utilised by SANBI and seconded to other organisations; and local consultants utilised by implementing agencies. These resourcing arrangements are shown in figure 1 below.

Key local consultants include: the Grasslands Programme Manager, Finance Manager, Projects Officer, Urban Coordinator, Agriculture Coordinator, Forestry Coordinator as shown in the organogram in figure 2 below.

Figure 1: Human resourcing arrangement for the implementation of the Grasslands Programme





Notes:

Grasslands Programme “core” local consultants funded by GEF and SANBI/DEAT

Positions located in implementing agents funded by GEF (local consultants appointed by implementation agents)

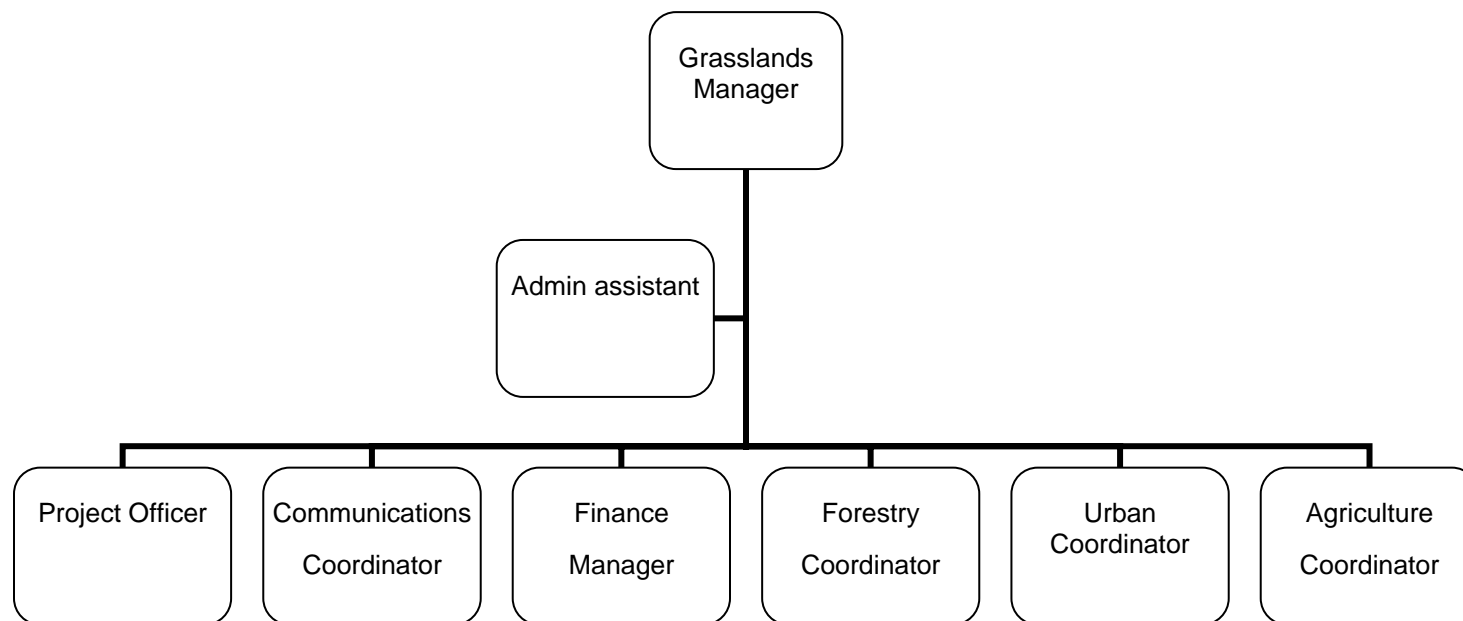
Positions appointed by SANBI and seconded, with position and component funding by GEF

(Location of local consultants)

- Line & programme management
- - - - -> Agric programme management (line management within the institution)
- - - - -> Forestry programme management (line management within the institution)

³⁹ Forestry Service Provider dealing with all three elements of the forestry work - forestry related stewardship, management of the forest estate and small growers

Figure 2: **ORGANOGRAM OF KEY LOCAL CONSULTANTS TO THE PROJECT**



1.1 Grasslands Programme Manager

Purpose

To provide effective and efficient strategic leadership and management of the implementation of the Grasslands Programme, a multi-faceted and multi-stakeholder bioregional programme over six provinces over five years, with over 20 key partner institutions and a core budget of \$8.3 million operationalising the conservation and sustainable development strategy for the Grasslands Biome

Objectives

- Strategic leadership to the implementation of the Grasslands Programme
- Management of all programme processes, deliverables, finances, procurement and contracting of service providers that results in the achievement of the programme outcomes
- Manage donor relations including ensuring compliance to donor requirements; communicating key messages from Grasslands to both local and international donors; host regular donor visits; review donor strategies and lobbying government departments to align funding strategies to the NGBP.
- Ensure effective financial management of donor funds (including core funds of \$8.3million from UNDP GEF and other donor sources still to be raised)
- Development and implement a fundraising strategy
- Ensure the coordination of implementation activities, through effective governance structures
- Effective management of relationships with a diverse range of partner's and stakeholders (private sector, public sector, NGOs and academic), resulting in their continued mobilisation and support of the programme
- Leadership on content regarding mainstreaming biodiversity into production sectors, how to achieve trade offs between development and biodiversity and linkages between poverty alleviation and biodiversity management
- Appointment and supervising of the local consultants within the Grasslands Coordination Unit and Sectors – grasslands programme officer; communications coordinator, finance manager, forestry coordinator, urban coordinator and agriculture coordinator

1.2 Projects Officer

Purpose

To provide support to the Grasslands Programme Manager for the effective implementation of the Grasslands Programme through the provision of monitoring, reporting, knowledge management systems and research and other services as required

Objectives

- Manage all donor compliance and reporting requirements
- Develop and manage monitoring, reporting and knowledge management systems
- Support the development of local level projects and identify sources of funding

- Undertake various research projects as required
- Represent the Grasslands Programme and stand in for PM as required

1.3 Communications Coordinator

Purpose

To manage and coordinate the communications, marketing and stakeholder and media relations function of the Grasslands Programme, including:

Objectives

- Strategic leadership to the communications strategy and plan of the Grasslands Programme
- Raise the profile of the Grasslands Programme through effective communications
- Management of all communications processes, deliverables, finances, procurement and contracting of service providers that results in the achievement of the programme outcomes
- Effective management of relationships with a diverse range of partner's and stakeholders (private sector, public sector, NGOs and academic), resulting in their continued mobilisation and support of the programme. Particularly important are relationships with the communication's units within the key stakeholder groups.
- Develop effective relationships with key decision makers, in both the public (political and administrative levels) and private sectors, so as to mainstream biodiversity into decisions.
- Create and manage PR for the Grasslands Programme
- Host donor visits
- Develop and implement a fundraising strategy which results in additional funding for the communications
- Oversight regarding effective financial management of the communications budget
- Ensure the coordination of communications, through good relationships with component coordinators who need communications for their components

1.4 Finance Manager

Purpose

To ensure effective and efficient financial management of the implementation of the Grasslands programme.

Objectives

- Management of the finances of the Grasslands Programme
- Ensure timely and high quality compliance to donor requirements doing the necessary reports etc
- Set up effective and efficient financial management system within the programme, with SANBI and donors

- Ensure accurate audit completed timeously

1.5 Forestry Coordinator

Purpose

The job purpose is to provide effective and efficient strategic leadership, management and coordination of the implementation of the forestry component of the Grasslands Programme.

Objectives

- Strategic leadership to the implementation of the forestry component of the Grasslands Programme
- Management of all forestry component processes, deliverables, finances, procurement and contracting of service providers that results in the achievement of the programme outcomes
- Management of contracted implementation agencies that fall under the forestry component. These include: stewardship officers in KZN Wildlife and Mpumalanga Parks and Tourism Authority (MTPA); and a long term service provider in the Eastern Cape working with EC DEAET and EC DWAF.
- Effective management of relationships with a diverse range of partner's and stakeholders (private sector, public sector, NGOs and academic), resulting in their continued mobilisation and support of the programme. Particularly important are relationships with organised forestry and DWAF.
- Develop effective relationships with key forestry decision makers, in both the public (political and administrative levels) and private sectors, so as to mainstream biodiversity into decisions.
- Leadership on content regarding mainstreaming biodiversity into forestry; how to mainstream biodiversity into forestry systems such as FSC especially for small growers; how to secure conservation stewardship on private land owned by forestry companies; how to improve biodiversity management systems on forestry estates; how to build biodiversity awareness and capacity amongst forestry decision makers; how to achieve trade offs between forestry development and biodiversity and the building of linkages between poverty alleviation and biodiversity management
- Manage donor relations within the forestry component including ensuring compliance to donor requirements; communicating key messages from Grasslands to both local and international donors; host donor visits; review donor strategies and lobbying government departments to align funding strategies to the Grasslands Programme
- Develop and implement a fundraising strategy which results in additional funding for the forestry component
- Oversight regarding effective financial management of donor funds for the forestry component in conjunction with the Finance Manager
- Ensure the coordination of implementation activities, through effective governance structures
- Raise the profile of the forestry component of the Grasslands Programme through effective communications

1.6 Urban Coordinator

Purpose

The job purpose is to provide effective and efficient strategic leadership, management and coordination of the implementation of the urban component of the Grasslands Programme within the Gauteng province.

Objectives

- Strategic leadership to the implementation of the urban component of the Grasslands Programme
- Management of all urban component processes, deliverables, finances, procurement and contracting of service providers that results in the achievement of the programme outcomes
- Effective management of relationships with a diverse range of partner's and stakeholders (private sector, public sector, NGOs and academic), resulting in their continued mobilisation and support of the programme. Particularly important are relationships with municipalities and other provincial agencies in Gauteng.
- Develop effective relationships with key decision makers, at political and administrative levels, so as to mainstream biodiversity into decisions – networking and communication skills are key
- Leadership on content regarding mainstreaming biodiversity into the urban economy; how to build biodiversity awareness and capacity within decision makers; how to achieve trade offs between development and biodiversity and the building of linkages between poverty alleviation and biodiversity management; local government planning and decision-making; and intergovernmental relations
- Manage donor relations within the urban component including ensuring compliance to donor requirements; communicating key messages from Grasslands to both local and international donors; host regular donor visits; review donor strategies and lobbying government departments to align funding strategies to the Grasslands Programme
- Develop and implement a fundraising strategy which results in additional funding for the urban component
- Oversight regarding effective financial management of donor funds for the urban component in conjunction with the Finance Manager (including core funds raised through UNDP GEF and other donor sources still to be raised)
- Ensure the coordination of implementation activities, through effective governance structures
- Raise the profile of the urban component of the Grasslands programme through effective communications

1.7 Agriculture Coordinator

Purpose

The job purpose is to provide effective and efficient strategic leadership, management and coordination of the implementation of the agricultural component of the Grasslands Programme.

Objectives

- Strategic leadership to the implementation of the agriculture component of the Grasslands Programme
- Management of all agriculture component processes, deliverables, finances, procurement and contracting of service providers that results in the achievement of the programme outcomes
- Management of contracted implementation agencies that fall under the agricultural component. These include BotSoc/WWF for the Wakkerstroom project; stewardship officers in KZN Wildlife and Mpumalanga Parks and Tourism Authority (MTPA); and an agency for the Free State river ecosystems project
- Effective management of relationships with a diverse range of partner's and stakeholders (private sector, public sector, NGOs and academic), resulting in their continued mobilisation and support of the programme. Particularly important are relationships with organised agricultures and departments of agriculture.
- Develop effective relationships with key agricultural decision makers, in both the public (political and administrative levels) and private sectors, so as to mainstream biodiversity into decisions.
- Leadership on content regarding mainstreaming biodiversity into agriculture; how to influence agricultural policy and affect implementation; how to mainstream biodiversity into red meat certification systems; how to secure conservation stewardship on private commercial farms and communal/land reform farms; how to build biodiversity awareness and capacity amongst agricultural decision makers; how to achieve trade offs between agricultural development and biodiversity and the building of linkages between poverty alleviation and biodiversity management
- Manage donor relations within the agricultural component including ensuring compliance to donor requirements; communicating key messages from Grasslands to both local and international donors; host regular donor visits; review donor strategies and lobbying government departments to align funding strategies to the Grasslands Programme
- Develop and implement a fundraising strategy which results in additional funding for the agricultural component
- Oversight regarding effective financial management of donor funds for the agricultural component in conjunction with the Finance Manager
- Ensure the coordination of implementation activities, through effective governance structures
- Raise the profile of the agricultural component of the Grasslands Programme through effective communications
- Support/deputies for the Grasslands Programme Manager, particularly regarding engagement with political and government role players.

PART IV: STAKEHOLDER INVOLVEMENT PLAN

Introduction

1. The Stakeholder Involvement Plan specifies goals and objectives for stakeholder engagement, identifies key stakeholders/partners and delineates their interests relative to the project, and describes how stakeholders will be involved in implementation. The Plan was designed based on a stakeholder assessment and engagement process that was carried out over a period of one year. This included engagement through face-to-face meetings with individual organizations by the project team across the forestry, agriculture, mining and urban development sectors. Sector specific stakeholder workshops and broader grassland forum meetings were conducted as an adjunct to this exercise. The face-to-face meetings and workshops allowed for the informed identification of actors and possible programme champions. The institutional arrangements for implementation have been determined through this process. The stakeholders and their representative task teams were instrumental in identifying the focus of the NGBP in their respective sectors, as well as in designing coordination mechanisms.

2. Goal and Objectives for Stakeholder Involvement

The *goal* for stakeholder involvement in the Project is: **to ensure that stakeholders from production sectors represented in the grasslands biome that are affected by, have a role in, or are interested in programme themes are actively championing biodiversity conservation.** The *objectives* are as follows:

- a) To ensure that policies, regulations, plans and management strategies are produced through a process that involves the affected stakeholders with a view to implementation by sector institutions themselves, and thus contributing to the establishment of an enabling environment for biodiversity conservation;
- b) To facilitate and promote functional collaborative multi-stakeholder involvement in project activities so as to engineer conservation outcomes beyond the confines of the project across the grasslands biome.

3. Methods and Strategies for Stakeholder Involvement The Project incorporates two strategies for stakeholder involvement, as follows:

(i) *Essential element under Outcome 1 on “Enabling Environment”* Effective actors make up effective institutions. Capacity building at the individual level will be supported in a bid to improve the effectiveness of institutions involved in project implementation, and the creation of an enabling environment.

(ii) *Engagement by Stakeholders in Activities Under All Outcomes:* Mainstreaming under all the outcomes will require the active involvement of multiple stakeholder groups in cooperating institutions. The NGBP is designed to play a catalytic role in mainstreaming biodiversity in production activities. Thus conservation outcomes will be predicated on the sectors’ engagement/ commitment in the process. Context sensitive interventions have been developed in order to facilitate active participation. Awareness raising activities aimed at engendering attitudinal change are a key part of all Outcomes.

Stakeholder Analysis

The main stakeholders involved in the NGBP are shown in the table below.

Table 15: Stakeholders and their Functions

Stakeholder	Function	Role in Project
National Government Institutions		
Department of Environmental Affairs and Tourism (DEAT)	Responsible for environmental policy and legislation; mother institution of SANBI Responsible for protected areas, mother institution of SANParks National department responsible for tourism Projects include Transfrontier Conservation Areas, poverty alleviation projects such as community-based natural resource management, wetland conservation, and desertification	Primary beneficiary – enabling environment
Department of Water Affairs and Forestry (DWAF)	Responsible for water resource management, provision of water services and management of forests Forestry Directorate: Technical and information services responsible for biodiversity conservation, in the process of developing criteria and indicators for biodiversity conservation in state forests; sustainable forest management with a project aimed at fire act implementation Integrated Water Resource Management: Water use and conservation including establishment of catchment management authorities Working for Water Programme	Primary beneficiary – enabling environment; forestry; agriculture; coal mining
National Department of Agriculture	Responsible for agricultural policy, regulatory functions, communication and information services and research. Key focus areas include farmer settlement and development, agricultural trade and business development, agricultural production and sustainable resource management. LandCare Programme encouraging a community-based approach to sustainable management and use of agricultural natural resources; involved in rehabilitation of degraded land, removal of alien vegetation, protection and restoration of biodiversity and veld and resource management Agricultural Research Council – Range and Forage Institute: sustainable utilization of veld without degradation to natural resources and loss of biodiversity; projects in central and sour grasslands; research on rangeland condition and production; the National Veld Monitoring Programme, and the ‘Farmers for Africa’ Initiative	Primary beneficiary – enabling environment; agriculture
Department of Land Affairs	Responsible for land reform programmes including restitution, redistribution and tenure Responsible for deeds registry and surveyor general’s office	Indirect beneficiary - agriculture
South African National Biodiversity Institute (SANBI)	SANBI serves the South African government as the primary statutory institution devoted to the study, conservation, display and promotion of the country’s indigenous biodiversity. SANBI is a public entity under DEAT The Biodiversity Directorate, within which the NGBP will be housed, is responsible for biodiversity planning, monitoring and bioregional programmes Various research initiatives such as on impact of climate change on biodiversity Threatened Species Programme – monitoring and protecting species	Primary beneficiary – all outcomes
Provincial Government Departments		

Stakeholder	Function	Role in Project
Eastern Cape: Department of Economic Affairs, Environment and Tourism (EC DEAET)	Responsible for provincial environmental functions including environmental planning and approval of EIA applications Responsible for conservation outside of provincial protected areas	Primary beneficiary – forestry
Eastern Cape: Department of Agriculture	Agricultural functions include: agricultural support to farmers, farmer settlement and development, agricultural economics, technology research and development, sustainable resource management, veterinary services and agricultural training	Primary beneficiary – agriculture
KwaZulu/Natal: Department of Agriculture and Environmental Affairs (KZN-DAEA)	Responsible for provincial environmental functions including environmental planning and approval of EIA applications Agricultural functions include: farmer settlement and development, agricultural economics, technology research and development, sustainable resource management, extension services for farmers, veterinary services and agricultural training	Primary beneficiary – agriculture; forestry
Free State: Department of Tourism, Environment, and Economic Affairs (FS DTEEA)	Responsible for provincial environmental functions including environmental planning and approval of EIA applications	Primary beneficiary – agriculture
Free State: Department of Agriculture	Agricultural functions include: farmer settlement and development, agricultural economics, technology research and development, sustainable resource management, extension services for farmers, veterinary services and agricultural training	Primary beneficiary – agriculture
Gauteng: Department of Agriculture, Conservation and Environment (GDACE)	Provincial department in Gauteng responsible for the environment, conservation and agriculture. Conservation functions include: promoting sustainable utilisation and conservation of biological diversity; programmes on protection of indigenous flora and fauna, sustainable utilization of natural resources, management and development of Provincial Nature Reserves. Manages the Gauteng biodiversity conservation plan Environment functions include: promoting sustainable development and quality of life; includes programmes on environmental awareness, industrial impact management, integrated waste management, urban and rural development Agricultural functions include: farmer settlement and development, agricultural economics, technology research and development, sustainable resource management, extension services for farmers, veterinary services and agricultural training.	Primary beneficiary – implementing agent for urban outcome
North West: Department of Agriculture, Conservation and Environment (NW DACE)	Responsible for provincial environmental functions including environmental planning and approval of EIA applications Involved in the LandCare Programme, Working for Water Programme, environmental rehabilitation of degraded areas (including wetlands) Agricultural functions include: farmer settlement and development, agricultural economics, technology research and development, sustainable resource management, extension services for farmers, veterinary services and agricultural training	Primary beneficiary – agriculture
Mpumalanga: Department of Agriculture and Land Administration	Responsible for provincial environmental functions including environmental planning and approval of EIA applications Agricultural functions include: farmer settlement and development, agricultural economics, technology research and	Primary beneficiary – agriculture

Stakeholder	Function	Role in Project
	development, sustainable resource management, extension services for farmers, veterinary services and agricultural training	
Governmental Conservation Authorities		
South African National Parks (SAParks)	Responsible for conservation management and implementation in national parks Provides institutional coordination and support for protected areas Considering the establishment of a national grasslands park as none exists Involved in development of Transfrontier Conservation Areas	Indirect beneficiary – location of grassland national park
Ezemvelo KZN Wildlife	Responsible for conservation management of KZN protected areas, the most well known of which is the Ukuhlamba/Drakensberg park which is also a world heritage site Research programmes include: General biodiversity research on plant conservation, threatened plants, terrestrial vertebrates and invertebrates, birds and resource use; a Strategic Environmental Assessment to determine the conservation value of land in KwaZulu-Natal; a Systematic Conservation Planning and Development Project; a Management Effectiveness Assessment for protected areas; and plant recovery plans. Have a partnership with WWF on rhinoceros management Hosts the Maloti-Drakensberg Transfrontier Project (MDTP) – see below	Primary beneficiary – agriculture; forestry
Mpumalanga Parks and Tourism Agency (MPTA)	Responsible for conservation management of provincial parks in Mpumalanga, the most well known of which is Blyde River Canyon Park Has completed a joint project with DALA to develop a province wide Mpumalanga Biodiversity Conservation Plan Is presently being amalgamated with the Mpumalanga Tourism Board	Primary beneficiary – agriculture; forestry
North West Parks and Tourism Board	Responsible for conservation management of provincial parks in Mpumalanga, the most well known of which is Pilansberg Projects include conservation of wildlife resources; land use planning, development of wildlife-related industries for social and economic benefit	Primary beneficiary – agriculture
Eastern Cape Parks Board (ECPB)	Responsible for conservation management of provincial parks in the Eastern Cape Still being developed Is responsible, with EC DEAET, for implementation of the Wild Coast Project, an important initiative that seeks to secure coastal grasslands in the E Cape	Primary beneficiary – agriculture; forestry
Local Municipalities		
Johannesburg Metropolitan Municipality	General municipal functions, manages largest local economy in SA Environmental management; Regulatory functions re land use and development applications; Protected area (parks) management and expansion; Incorporation of Gauteng’s conservation plan into municipal plans, such as SDFs, EMPs etc; Environmental enforcement; Local Economic Development (LED) aimed at poverty alleviation; has a IEMP and JMOSS	Primary beneficiary – urban
Tshwane Metropolitan	General municipal functions, home to 2.2 million people	Primary beneficiary - urban

Stakeholder	Function	Role in Project
Municipality	Environmental management; Regulatory functions re land use and development applications; Protected area (parks) management and expansion that include – Zwartkop, Groenkloof, Voortrekker Monnument, Rietvlei Dam, Magaliesberg, Onderstepoort and Tshwaing; Incorporation of Gauteng’s conservation plan into municipal plans, such as SDFs, EMPs etc; Environmental enforcement; Local Economic Development (LED) aimed at poverty alleviation; has IEMP and TOSS	
Ekurhuleni Metropolitan Municipality	General municipal functions, manages industrial hub of SA Environmental management; Regulatory functions re land use and development applications; Protected area (parks) management and expansion; Incorporation of Gauteng’s conservation plan into municipal plans, such as SDFs, EMPs etc; Environmental enforcement; Local Economic Development (LED) aimed at poverty alleviation; has EMFs	Primary beneficiary – urban
Sedibeng District Municipality	General municipal functions Environmental management; Incorporation of Gauteng’s conservation plan into municipal plans, such as SDFs, EMPs etc	Primary beneficiary – urban
Emfuleni Local Municipality	General municipal functions Environmental management; Regulatory functions re land use and development applications; Protected area (parks) management and expansion; Incorporation of Gauteng’s conservation plan into municipal plans, such as SDFs, EMPs etc; Environmental enforcement; Local Economic Development (LED) aimed at poverty alleviation	Primary beneficiary – urban
West Rand District Municipality	General municipal functions Environmental management; Incorporation of Gauteng’s conservation plan into municipal plans, such as SDFs, EMPs etc	Primary beneficiary – urban
Mogale City Local Municipality	General municipal functions Environmental management; Regulatory functions re land use and development applications; Protected area (parks) management and expansion; Incorporation of Gauteng’s conservation plan into municipal plans, such as SDFs, EMPs etc; Environmental enforcement; Local Economic Development (LED) aimed at poverty alleviation	Primary beneficiary – urban
Research and Academic Institutions		
University of KwaZulu-Natal	Research including: management of montane grasslands, sustainable use of natural resources, burning regimes, utilisation of veld, re-vegetation of mine dumps, studies on high altitude grassland invertebrates in relation to burning regimes Institute of Natural Resources (INR) associated with the University focuses on natural resource management to promote sustainable use of land, water and biota Inland Invertebrate Initiative promotes conservation of invertebrates	Indirect beneficiary – across outcomes
University of the Witwatersrand: Department of Animal, Plant and Ecological Science	Grassland and Savanna Ecology: research includes: to identify highly vulnerable areas within the grasslands, conservation biology of endangered plant taxa, medicinal plants, re-habilitation of mine dumps, monitor changes, document biodiversity and develop guidelines for sustainable use in the highveld grassland	Indirect beneficiary – across outcomes

Stakeholder	Function	Role in Project
University of Pretoria	Research includes: Conservation planning in the grasslands; effects of climate change and land use change; grassland and forestry fragmentation programme; phytosociological research in the grasslands biome (vegetation science, plant-community ecology, implications for wildlife management, livestock farming and conservation)	Indirect beneficiary – across outcomes
Nelson Mandela Metropolitan University	Research on the Eastern Cape grasslands	Indirect beneficiary – across outcomes
University of Potchefstroom	Research includes: Terrestrial Plant Ecology: research on rangeland management and restoration, monitoring and evaluation of rangelands, and degradation and recovery of the arid and semi-arid grasslands Urban Plant Ecology: conduct urban vegetation studies Department of Zoology conducts research on rehabilitation and restoration ecology, especially of insect biodiversity	Indirect beneficiary – across outcomes
University of the Free State	Research includes: on the dynamics, conservation and sustainable utilization of grassland ecosystems; research on veld condition	Indirect beneficiary – across outcomes
University of Cape Town	Research includes: on the effects of a burning regime on diversity in mesic, montane and semi-arid grasslands	Indirect beneficiary – across outcomes
Council for Scientific and Industrial Research (CSIR)	Research includes: Water, Environment and Forestry Technology: research areas include ecosystem management (alien plant management, fire management, biodiversity management, land use and conservation planning) and catchment management; data on areas suitable for afforestation	Indirect beneficiary – across outcomes
Agricultural Research Council (ARC)	Promotes agricultural and related sectors through research, technology development and transfer. It provides guidance for conservation, management and sustainable use of South Africa's biodiversity and utilises and optimises indigenous technology and indigenous plants and animals to ensure maximum benefit to all communities. The Range and Forage Institute (RFI) is involved in studies on rangeland condition, production and degradation; veld description, evaluation and management; climate-based technologies in sheep and cattle industries of the grassveld. The institute initiated the 'Farmers for Africa' initiative and houses the National Veld Monitoring Programme. Other institutes include the Grain-Crop Institute, Small-Grain Institute, Institute for Industrial Crops and the Plant Protection Research Institute.	Indirect beneficiary – across outcomes
National Research Foundation (NRF)	Responsible for facilitating and funding of relevant and appropriate biodiversity research and the development of research capacity Focus area on Conservation and Management of Ecosystems and Biodiversity The South African Biosystematics Initiative (SABI) provides a fundamental information platform for biodiversity	Indirect beneficiary – across outcomes
Civil Society Organisations – NGOs, CBOs		
WWF - SA	Leads the WWF SA Grassland Ecoregion Program with the aim of securing 10% of the grassland ecoregion within formal protected areas; development of habitat webs which would enable commercial production but maximise habitat heterogeneity;	Primary beneficiary

Stakeholder	Function	Role in Project
	development of partnerships and funding options for grassland conservation needs Projects in the highland grasslands biome of South Africa include: the Ekangala Grassland Project (Botanical Society) in the highland moist grasslands of Mpumalaga, KwaZulu-Natal and the Free State; Mondi Wetlands Project (WESSA); the Farmworkers and Cranes Project (EWT); proposed Wild Coast Protected Area (WESSA/Wilderness Foundation); conservation of black and white rhino populations in KwaZulu-Natal (WWF-SA); grassland management of Rudd's Lark; Oribi reintroduction project (University of Natal). Projects in the montane grasslands biome include: Bergwatch-Drakensberg Grassland Biodiversity Project (WESSA), Blyde River Canyon National Park Facilitation Project, Ithala Co-operative Conservation Partnership (KZN Wildlife)	
Endangered Wildlife Trust (EWT)	Mission: The Endangered Wildlife Trust is dedicated to conserving species and ecosystems in southern Africa to the benefit of all people. Specialist working groups based in the grassland and wetland habitats include the Blue Swallow Working Group, the African Wattled Crane Programme, the Oribi Working Group, the South African Crane Working Group and the KwaZulu-Natal Biodiversity Programme. Additional working groups include the Birds of Prey Working Group (under threat due to habitat degradation) and the Poison Working Group (promote the correct management of agri-chemicals)	Primary beneficiary – across outcomes
Wildlife and Environmental Society of South Africa (WESSA)	Leads the WESSA Grasslands Initiative aiming at increasing awareness of the grasslands value Supports the Southern African Water Crisis (SAWAC) which reports on grassland issues	Primary beneficiary – across outcomes
Botanical Society of South Africa – Ekangala Grasslands Project	Has partnered with WWF-SA on the Ekangala Grassland Project which is an inter-provincial initiative focusing on both the conservation and socio-economic needs of the grasslands biome	Primary beneficiary – across outcomes
BirdLife - SA	Development of Wakkerstroom Wetland Reserve together with Sappi/WWF Forests and Wetland Venture; ecotourism and bird guide training centre (Wakkerstroom); identification of Important Bird Areas (IBA) within the grasslands biome; Blue Swallow Conservation Project will provide information on grassland management; Whitewinged Flufftail Working Group at Wakkerstroom	Primary beneficiary – agriculture demonstration in Wakkerstroom
Grasslands Society of South Africa (GSSA)	Is dedicated to the advancement of the science and practice of range ecology and pasture management	Indirect beneficiary – across outcomes
Local civic organisations within urban Gauteng	There are a range of local community based organisations that will be involved at the demonstration sites within the urban component where refugia will be secured. They will play a key role in ensuring that the project achieves both its biodiversity and social objectives.	Primary beneficiary - urban
Local forestry small grower organisations	The support that the programme will offer to small growers regarding certification will be undertaken in partnership with FSA and the local small grower organisation which will play a pivotal role in ensuring that the intervention achieves its biodiversity and social objectives.	Primary beneficiary - forestry
Local farmer organisations	In the agricultural demonstration areas conservation stewardship	Primary beneficiary -

Stakeholder	Function	Role in Project
	and biodiversity management good practice cannot be successful without the direct involvement of farmer organisations and farmers.	agriculture
Private Sector		
ForestrySA	The commercial forestry sector is organised into Forestry SA that has 2,500 members, 90% of all registered timber growers. It is organised into three separate and distinct entities, i.e. the large growers group that includes companies such as Mondi and SAPPI, medium growers group including NCT and small growers group.	Primary beneficiary – implementing agent for forestry outcome
AgriSA	Represents the interest of commercial farmers in SA. Traditionally only represented white farmers’ interests but is now a non-racial organisation.	Primary beneficiary – agriculture
TLU	Represents the interests of a break-away group of farmers from AgriSA. Is perceived as being more politically conservative	Indirect beneficiary – agriculture
NAFU	Represents interests of African farmers	Primary beneficiary- agriculture
Agribusiness	Umbrella mouthpiece of agricultural producers’ businesses and makes key interventions in the trade environment. Agribusiness members represent total assets of almost R30 billion and an annual agricultural business turnover of about R50 billion.	Primary beneficiary – agriculture
SAMIC	The national representative company of the SA red meat industry, representing the supply chain from producers through feedlots and abattoirs to the consumer.	Indirect beneficiary- agriculture
NERPO	Was established in 1997 as a farmer commodity organisation and registered as a company in January 1999. Its primary aim is to facilitate commercialisation of the emerging red meat industry and ensure meaningful participation of black farmers within mainstream commercial agribusiness sector.	Primary beneficiary – agriculture
W.R.S.A.	The official mouthpiece between the game industry and government. It represents game rangers, not the hunting industry, and has about 1 400 active individual members.	Primary beneficiary – agriculture
Wool SA	Provides production, advisory and training services to wool growers. It has a focus on the upliftment of emerging small-scale producers, mainly in the formerly homelands of the Eastern Cape.	Primary beneficiary – agriculture
GrainSA	Represents many of the crops of importance to the grasslands, namely maize, soybeans, sunflowers, groundnuts, wheat, barley, oats and sorghum. It was founded in 1999 by grain farmers to have one powerful organisation representing their interests. It was formed out of NAMPO (maize), NOPO (soyabeans, sunflowers and groundnuts), the WPO (wheat, barley and oats) and the SPO (grain sorghum).	Primary beneficiary – agriculture
Chamber of Mines	Represents mining interests and has joint mining and biodiversity initiative with IUCN-SA	Primary beneficiary – coal mining
CoalTech2020	Collaborative research programme formed by major coal companies, universities, CSIR, NUM and government to develop technology and apply research findings to enable SA’s coal industry to remain competitive, sustainable and safe into the future. The big six coal mining companies are: BHP Billiton, AngloCoal, Sasocl Coal, Kumba resources, Xstrasa and Eyesizwe,	Indirect beneficiary – coal mining
ESKOM	SA’s main electricity supplier	Indirect beneficiary – coal mining

Stakeholder	Function	Role in Project
IAIA	Informal structure representing Impact Assessor Profession	Primary beneficiary – across outcomes

Stakeholder Participation Plan:

The stakeholder participation plan provides a description of the strengths of, and challenges incurred, in past efforts at involving stakeholders in biodiversity conservation management in South Africa. It then proceeds to describe the design features built into the NGBP, aimed at optimising stakeholder participation.

Table 16: Stakeholders Strengthens and NGBP Response

Strengths	How the NGBP Has Responded
The government has put in place a number of environmental management policies including the overarching National Environmental Management Biodiversity Act of 2004. An important part of the framework is the National Biodiversity Conservation Strategy and Action Plan (NBSAP) that has led SANBI to develop a strong conservation-planning component using systematic conservation planning at provincial levels.	The project has built on the successes of systematic conservation planning and is demonstrating the usefulness of the tool as a basis for spatial conservation and development planning. The NGBP has collaborated with the Conservation Planning Unit within SANBI in promoting conservation planning as a useful decision-support tool in the provinces where the project will have interventions. This has contributed and will continue to abet the capacity building objective.
A number of NGOs are involved in environmental management, taking on an active advocacy role. They have the capacity to organize and get involved in environmental public policy and have a stake in government consultation processes.	The project has harnessed expertise within the environmental NGO sector in many ways. The sector is represented on urban and forestry task teams where their expertise has been used to design the project. The project is also creating linkages with existing NGO interventions on stewardship in agriculture in a number of the provinces. The project has also drawn from knowledge gained by the sector in this regard. The NGO's will play a critical role in project implementation.
Sections of the private sector are directly involved in biodiversity conservation. The sector has also been instrumental in putting together some viable and ground breaking interventions. In some instances this has been through industry associations.	The project design has drawn on existing initiatives specifically from the forestry sector. The project has also made gains by drawing on the legitimacy and respect of the different industry bodies to gain access to land users or industries. The design phase of the project has allowed the private sector to consider their productivity concerns vis-à-vis biodiversity conservation objectives in a multi-sector environment. Implementation of some of the outcomes will be through industry associations.
Environmental NGO's input into the overall biodiversity conservation framework has not been coordinated and they could be involved in a more integrated manner. There have also been hard lines taken by the NGO and private sector regarding biodiversity issues, which have not made it easy to collaborate in some instances.	The project has managed in the design phase to bring together the civil society, respective government agencies and the private sector to work on sector specific issues. This will continue into implementation, making it clear that each sector has specific competencies that are all key. The involvement of all sectors has made it relatively easy for sectors with distinct conservation and production interests to start looking at ways to develop trade-offs.
Government has been largely viewed as responsible for conservation through regulatory approaches. A clearly defined role for civil society and private sector engagement has not been visible. Government's role has not been as going beyond regulation and enforcement.	The project has at its core the issue of self-regulation and incentives to encourage the integration of biodiversity conservation and production imperatives. Such integration allows production sectors to take ownership for conservation in their day-to-day activities. The private sector through this project will actively contribute towards the establishment of incentives to promote biodiversity-friendly production methods and encourage them to become long-term stewards of biodiversity.

Planned Actions to Address Stakeholder Participation Objectives

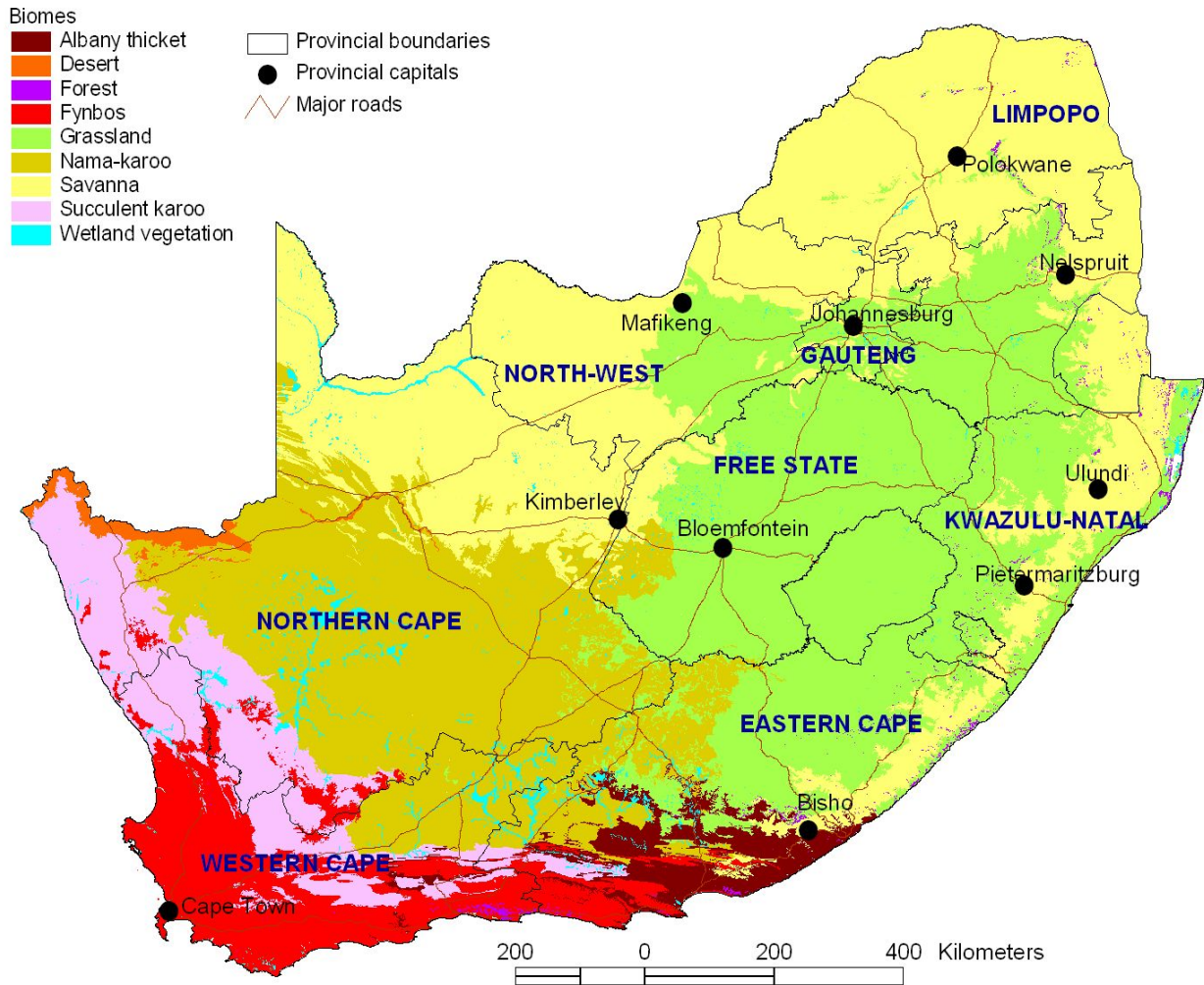
The table below presents a summary of the planned roles of the lead and participating stakeholders for the various outcomes. Technical outputs that are listed against the Grasslands Coordinating Unit will be contracted out to service providers.

Table 17: Stakeholders roles per outcome

Outcome	Lead Implementing and participating Organizations	Roles and responsibilities	Reporting/Steering	Technical and Management Support
Outcome 1: Enabling environment for biodiversity conservation in production landscapes in grasslands biome is strengthened	LEAD: SANBI Grassland Coordinating Unit Supported: DEAT Engaging with Government (Treasury and Finance), ENGOs and private sector.	<ul style="list-style-type: none"> - Make a case for the monetary value of ecosystem services and goods - Keeping a watching brief over sectors not covered in main project - Monitoring and evaluation (biodiversity indicators etc) - Bioregional plans - Institutional mainstreaming effectiveness 	<ul style="list-style-type: none"> - Grassland Steering Committee - Grassland Forum for strategic direction - SANBI Board through Biodiversity Directorate 	<ul style="list-style-type: none"> - SANBI - Grasslands Forum - Grassland Society of Southern Africa - WWF, IUCN - Universities, ARC, WRC - Contracted technical advice
Outcome 2: Mainstream grassland biodiversity conservation objectives into agriculture	LEAD: Agriculture Management Unit (manager located in Grasslands Coordinating Unit and contracted service provider at demonstration level) Supported: KZN Wildlife, MPTA, ECPB (provincial level stewardship) Agriculture Demonstration Task Teams (local level), farmers	<ul style="list-style-type: none"> - Demonstrating biodiversity stewardship approaches and best practices - Making a case for a certification scheme to support biodiversity-friendly farmed red meat - Incorporating biodiversity management objectives into agricultural laws, policies and guidelines. 	<ul style="list-style-type: none"> - Grassland Coordinating Unit - Grassland Steering Committee - Agriculture Task Team 	<ul style="list-style-type: none"> - ARC, DoA, Provincial Agriculture, Provincial Conservation Authorities, WWF, Botsoc, contracted service providers
Outcome 3: The forestry sector directly contributes to biodiversity conservation objectives in the grasslands biome	LEAD: Forestry SA Supported: Mondi, Sappi, NCT, Komatiland, Singisi, Steinhoff, Amathole, EWT, Grassland Society (GSSA), DWAF, local small growers	<ul style="list-style-type: none"> - Promoting the incorporation of biodiversity management objectives in planning for expansion - Working with companies to formally securing priority areas within permanently 	<ul style="list-style-type: none"> Grassland Coordinating Unit - Grassland Steering Committee - Forestry Task Team 	<ul style="list-style-type: none"> - ARC, DWAF, Provincial Conservation Authorities, ENGOs, contracted service providers

Outcome	Lead Implementing and participating Organizations	Roles and responsibilities	Reporting/Steering	Technical and Management Support
	KZN Wildlife, MPTA, ECPB (provincial level stewardship)	unplanted forestry land - Working with industry on a national certification and standards systems to incorporate grassland biodiversity objectives		
Outcome 4: Grassland biodiversity management objectives mainstreamed into urban economy in Gauteng	LEAD: GDACE Supported: SANBI, Johannesburg MC, Tshwane MC, Mogale LM, Ekurhuleni MC, Sedibeng DM, Emfuleni LM, West Rand DM, Lesedi LM, WESSA, local civic organisations	- Integration of biodiversity priorities in municipal open space and spatial development frameworks - Securing priority areas in urban setting - Develop a management toolbox - Develop institutional mainstreaming effectiveness	- Grassland Coordinating Unit - Grassland Steering Committee - Urban Task Team	SANBI, SALGA, Universities, ENGOS, contracted service providers
Outcome 5: Biodiversity management secured in coal mining sector	LEAD: Coal Mining Management Unit (contracted service provider) Supported: Coal mining industry Working for Wetlands, WRC, DME, DWAF	- Develop an off set policy with industry for adoption by industry - Demonstrate the use of biodiversity planning information in planning for new coal mines	- Grassland Coordinating Unit - Grassland Steering Committee - Coal Mining Task Team	- Chamber of Mines, CoalTech, SANBI, WRC, Universities, Provincial Conservation Authorities, DWAF, contracted service providers

PART V: MAP OF PROJECT AREA



PART VI: THREAT ANALYSIS

1. **Threats to Biodiversity from Production Activities:** An analysis of the relative impact of different production activities on the conservation status of the grasslands was also undertaken during the preparatory process. Land uses were scored against a set of biodiversity indicators to provide a picture of their impact. The results are briefly summarized below. Further details are provided in Part 1.6 of the Programme Document and in the Threats Assessment (Annex I of the Programme Document).

2. **Agriculture:** About 65.2% of the grasslands biome comprises rangelands used for grazing by domestic livestock and game. Under appropriate conditions, this land use is considered to be conducive to the maintenance of grassland biodiversity. Inappropriate management practices can, however, lead to habitat disturbance, with coupled adverse impacts on biodiversity. Inappropriate grazing management can take various forms, including over-stocking, inappropriate species stocking ratios, and inappropriate application of fire as a management tool (to release potash into the soil to improve grazing). The practices usually result in changed vegetation composition. Cultivation poses a more serious threat to grassland biodiversity leading to direct habitat loss, fragmentation of habitats, and the disruption of ecosystem function. Although the impacts of cultivation on biodiversity are severe where it occurs, the threats to biodiversity in the grasslands biome as a whole are considered to be low to moderate. Economic impulses⁴⁰ in the last decade have led to the contraction of the cultivated area within the biome. Macro level pressure for agricultural expansion in the grasslands biome is not likely in the next five years. There is a risk in the future that new threats will emerge with the development of new crops. The most significant of these are two types of green fuels from biomass – bio-diesel from vegetable oils and ethanol fuels. If the planting of land takes place on previously cultivated lands, then the impact on biodiversity will be negligible: but if it should take place on a large scale on veldt, the impact would be significant.

3. **Plantation Forestry:** New commercial timber plantations have significant negative on-site impacts on biodiversity because they result in direct habitat losses. Plantations have been found to use between 500 and 1500 million m³/ha/annum more water than the vegetation replaced, reducing measurable streamflow by between 50mm – 150mm/annum. This has an impact on wetlands. Thus, the extent and location of new plantations is of key concern to the conservation agenda. The area under production is expected to increase by up to 200,000 ha over the next 20 years, mainly in the form of small holder estates. The big growers own large tracts of land that are presently unplanted with trees, including areas that are important for biodiversity conservation. There are three threats facing this land. Firstly, the ecological integrity of these areas may be gradually undermined because the areas are too small to maintain native species assemblages; and secondly these areas may become invaded by alien species, which out compete native species. Third, this land will soon become subject to the Local Government Property Rates Act which, once implemented, will tax this presently un-taxed land so causing the companies to incur new costs. The risk exists that companies may sell land that contains natural grasslands rather than pay rates, resulting in undeveloped land coming onto the market for development.

4. **Urbanization (Gauteng Province):** Urbanisation can lead to complete transformation of grassland habitat, leaving only small isolated fragments, and disrupted ecosystem functioning in the form of dramatically perturbed fire and grazing regimes, biogeochemical processes, and hydrological functioning, loss of habitat and an increased threat of bio-invasion by invasive alien species. These problems are

⁴⁰ Corresponding with the removal of farm subsidies.

particularly acute in Gauteng province, which is the centre of distribution for the Bushveld-Bankenvelde vegetation type and e-goli grasslands, the conservation targets for which cannot easily be met elsewhere.

5. **Coal Mining:** The grasslands contain a rich mineral wealth, including coal, gold, diamonds (alluvial and underground), platinum, and stone. Coal mining is the most significant sector in terms of spatial coverage. 40% of coal in South Africa is extracted by open-cast methods, which have a devastating impact on biodiversity. However, its existing footprint is, relative to other land uses such as cropping and forestry plantations, small at about 40 000ha. Set against this is the fact that the vegetation types affected by open-cast mining operations include several types with a low formal conservation status, namely Moist Clay Highveld Grasslands, Moist Cool Highveld Grassland, Moist Sandy Highveld Grassland and North Eastern Mountain Grasslands. Coal mining has a substantially greater impact than any other land use on hydrological functioning owing to water abstraction and water acidification. Therefore, coal mines can have external impacts on wetlands outside of the immediate production zone.

PART VII: REPLICATION STRATEGY

214. The programme has been designed on a detailed identification and analysis of barriers to grassland biodiversity conservation and opportunities. It is built on lessons culled from similar initiatives across the world and incorporates best practices, while proposing further innovations.

215. The NGBP has developed specific strategies to maximize the impacts of activities at the landscape level, and is designed to have a catalytic effect. Because of the scale of the grasslands biome, interventions are needed at both macro and meso levels to inform policy, strategies and activities. A feedback loop will be created between macro level biome-wide interventions focused on creating the appropriate enabling environment, management tools and incentives, and demonstration interventions aimed at showing the application of these at a site level. Table 8 below identifies the needs and opportunities for replication and presents the planned replication strategy.

Table 8: Replication Strategies

Outcome	Need/Opportunities for Replication	Programme Strategy for Replication
Outcome 1: Enabling environment for biodiversity conservation in production landscapes in the grasslands biome is strengthened	<ul style="list-style-type: none"> - Demonstrate value of ecosystem services and grassland biodiversity to economy and heritage - Integration of biodiversity priorities into planning system at three spheres of government - Strong core coordination and facilitation capacity in programme 	<ul style="list-style-type: none"> - Knowledge Management System - Data management system - M&E system - Collaborative Programme Governance structures - Exchange programme that facilitates sharing of experiences across sectors, provinces and bioregional programmes - Lessons learning seminars - Use of institutional mainstreaming effectiveness tool to assess institutional capacity to replicate good practices
Outcome 2: Mainstream grassland biodiversity conservation objectives into agriculture	<ul style="list-style-type: none"> - Demonstration districts show implementation of incentives and biodiversity best management practice - Certification scheme would apply and be built across the country - Regulatory framework allows for incorporation of biodiversity best practice into policy and guidelines 	<ul style="list-style-type: none"> - Lessons learnt shared within demonstration districts and to wider programme through knowledge management system - Feedback loop between demonstration projects and policy and guidelines that are taken up by industry and DoA - Communication strategy - Establishment of network of specialists to provide capacity, coordination of activities and knowledge sharing
Outcome 3:	<ul style="list-style-type: none"> - Deepening biodiversity issues within industry 	<ul style="list-style-type: none"> - Methodology and toolkit to establish

Outcome	Need/Opportunities for Replication	Programme Strategy for Replication
The forestry sector directly contributes to biodiversity conservation objectives in the grasslands biome	norms and standards applies across plantations - One successfully proclaimed forestry owned and managed nature reserve will provide a catalyst	reserve distributed through knowledge management system - Feedback loop between meso and macro level interventions - Communication strategy - Establishment of network of specialists to provide capacity, coordination of activities and knowledge sharing
Outcome 4: Grassland biodiversity management objectives mainstreamed into urban economy in Gauteng	- Global City Strategy and need for integration of planning systems between spheres of government - Demonstrate value of ecosystem services and biodiversity to Gauteng economy and heritage through: a) projects which secure refugia and fulfil socio-economic/heritage function; b) negotiated trade-offs with developers	- Development of toolkit based on demonstrations that enables other similar projects and development to occur - Working through champions at various levels: political, provincial and municipal government, private sector associations involved in property development process - Communication strategy
Outcome 5: Biodiversity management secured in coal mining sector	- Demonstration offset projects on wetland mitigation and mitigation banking - Regulatory framework allows for negotiated offsets to be incorporated in mining license conditions	- Lessons learnt from offsets projects on wetland mitigation and banking shared through knowledge management system - Feedback loop between demonstration projects and policy and guidelines that are taken up by industry and DME

PART VIII: MONITORING AND EVALUATION PLAN

1. Project monitoring and evaluation will be conducted in accordance with established UNDP and GEF procedures and will be provided by The NGBP programme management and the UNDP Country Office (UNDP-CO) Pretoria with support from UNDP/GEF Regional Coordinator. The Logical Framework Matrix in Section II of the Project Brief provides impact indicators for project implementation along with their corresponding means of verification. These will form the basis on which the project's Monitoring and Evaluation system will be built. This Part includes: (i) a detailed explanation of the monitoring and reporting system for the project; (ii) a presentation of the evaluation system; (iii) a matrix presenting the work plan and the budget for M&E section; (iv) the Result Measurement Table; and (v) METT tables.

Monitoring and evaluation

A. Project Inception Phase

2. The NGBP programme management will conduct an inception workshop with the key stakeholders responsible for project management and implementation at the commencement of the project with the aim to assist the project team to understand and take ownership of the project's goals and objectives, as well as finalize preparation of the project's first annual work plan on the basis of the project's log frame matrix.

3. The key objectives of the Inception Workshop are to:

- (i) Review the log frame (indicators, means of verification, assumptions), imparting additional detail as needed;
- (ii) Finalize the Annual Work Plan (AWP) with precise and measurable performance indicators, and in

a manner consistent with the expected outcomes for the project;

- (iii) Develop specific targets for the first year implementation progress indicators;
- (iv) Introduce project local consultants with the representatives of the UNDP Country Office and the Regional Coordinating Unit (RCU);
- (v) Detail the roles, support services and complementary responsibilities of UNDP-CO and RCU staff vis à vis the project team;
- (vi) Provide a detailed overview of UNDP-GEF reporting and monitoring and evaluation (M&E) requirements, with particular emphasis on the annual Project Implementation Reviews (PIRs) and related documentation, the Annual Project Report (APR), Tripartite Review Meetings, as well as mid-term and final evaluations;
- (vii) Inform the project team on UNDP project related budgetary planning, budget reviews, and mandatory budget rephrasing;
- (viii) Present the TOR for project local consultants and decision-making structures in order to clarify each party's roles, functions, and responsibilities, including reporting and communication lines, and conflict resolution mechanisms;

B. Monitoring responsibilities and events

4. The NGBP programme management in consultation with relevant stakeholders will develop a detailed schedule of project reviews meetings, which will be incorporated in the Project Inception Report. The schedule will include: (i) tentative time frames for Tripartite Reviews, Steering Committee Meetings, (or relevant advisory and/or coordination mechanisms) and (ii) project related Monitoring and Evaluation activities.

5. *Day to day monitoring of implementation progress* will be the responsibility of the Project Coordinator, based on the project's Annual Work Plan and its indicators. The NGBP programme management will inform the UNDP-CO of any delays or difficulties faced during implementation so that the appropriate support or corrective measures can be adopted in a timely and remedial fashion. Measurement of impact indicators related to global benefits will occur according to the schedules defined in the Inception Workshop and tentatively outlined in the indicative Impact Measurement Template at the end of this Part. The measurement, of these will be undertaken through subcontracts with relevant institutions or through specific studies that are to form part of the projects activities.

6. *Periodic monitoring of implementation progress* will be undertaken by the UNDP-CO through quarterly meetings with The NGBP programme management, or more frequently as deemed necessary. This will allow parties to take stock and to troubleshoot any problems pertaining to the project in a timely fashion to ensure smooth implementation of project activities. UNDP Country Offices and UNDP-GEF RCUs as appropriate will conduct yearly visits to the Wild Coast to assess first hand project progress. Any other member of the Project Steering Committee can also accompany, as decided by the SC. A Field Visit Report will be prepared by the CO and circulated no less than one month after the visit to the project team, all SC members, and UNDP-GEF.

7. *Annual Monitoring* will occur through the Tripartite Review (TPR). This is the highest policy-level meeting of the parties directly involved in the implementation of a project. The project will be subject to Tripartite Review (TPR) at least once every year. The first such meeting will be held within the first twelve months of the start of full implementation. The NGBP programme management will prepare an Annual Project Report (APR) and submit it to UNDP-CO and the UNDP-GEF regional office at least two weeks prior to the TPR for review and comments. The APR will be used as one of the basic documents for discussions in the TPR meeting. The NGBP programme management will present the APR to the TPR,

highlighting policy issues and recommendations for the decision of the TPR participants and will inform the participants of any agreement reached by stakeholders during the APR preparation on how to resolve operational issues. Separate reviews of each project component may also be conducted if necessary. The TPR has the authority to suspend disbursement if project performance benchmarks (developed at the inception workshop) are not met.

8. *Terminal Tripartite Review (TTR)* is held in the last month of project operations. The NGBP programme management is responsible for preparing the Terminal Report and submitting it to UNDP-CO and LAC-GEF's Regional Coordinating Unit. It shall be prepared in draft at least two months in advance of the TTR in order to allow review, and will serve as the basis for discussions in the TTR. The terminal tripartite review considers the implementation of the project as a whole, paying particular attention to whether the project has achieved its stated objectives and contributed to the broader environmental objective. It decides whether any actions are still necessary, particularly in relation to sustainability of project results, and acts as a vehicle through which lessons learnt can be captured to feed into other projects under implementation of formulation.

C. Project Monitoring Reporting

9. The Project Coordinator in conjunction with the UNDP-GEF will be responsible for the preparation and submission of the following reports that form part of the monitoring process:

(i) *Inception Report (IR)* - will be prepared immediately following the Inception Workshop. It will include a detailed First Year/ Annual Work Plan divided in quarterly time-frames detailing the activities and progress indicators that will guide implementation during the first year of the project. This Work Plan would include the dates of specific field visits, support missions from the UNDP-CO or the Regional Coordinating Unit (RCU) or consultants, as well as time-frames for meetings of the project's decision making structures. The Report will also include the detailed project budget for the first full year of implementation, prepared on the basis of the Annual Work Plan, and including any monitoring and evaluation requirements to effectively measure project performance during the targeted 12 months time-frame. The Inception Report will include a more detailed narrative on the institutional roles, responsibilities, coordinating actions and feedback mechanisms of project related partners. In addition, a section will be included on progress to date on project establishment and start-up activities and an update of any changed external conditions that may effect project implementation. The finalized report will be distributed to the UNDP Country Office and UNDP-GEF's Regional Coordinating Unit and after that to the project counterparts who will be given a period of one calendar month in which to respond with comments or queries.

(ii) *Annual Project Report (APR)* - is a UNDP requirement and part of UNDP's Country Office central oversight, monitoring and project management. It is a self -assessment report by project management to the CO and provides input to the country office reporting process and the ROAR, as well as forming a key input to the Tripartite Project Review. An APR will be prepared on an annual basis prior to the Tripartite Project Review, to reflect progress achieved in meeting the project's Annual Work Plan and assess performance of the project in contributing to intended outcomes through outputs and partnership work. The format of the APR is flexible but should include:

- An analysis of project performance over the reporting period, including outputs produced and, where possible, information on the status of the outcome;
- The constraints experienced in the progress towards results and the reasons for these;

- The three (at most) major constraints to achievement of results;
 - Expenditure reports;
 - Lessons learned;
 - Clear recommendations for future orientation in addressing key problems in lack of progress.
- (iii) *Project Implementation Review* - is an annual monitoring process mandated by the GEF. It has become an essential management and monitoring tool for project managers and offers the main vehicle for extracting lessons from ongoing projects. Once the project has been under implementation for a year, a Project Implementation Report must be completed by the CO together with the project. The PIR can be prepared any time during the year and ideally prior to the TPR. The PIR should then be discussed in the TPR so that the result would be a PIR that has been agreed upon by the project, the executing agency, UNDP CO and the concerned RC. The individual PIRs are collected, reviewed and analyzed by the RCs prior to sending them to the focal area clusters at the UNDP/GEF headquarters. The focal area clusters supported by the UNDP/GEF M&E Unit analyze the PIRs by focal area, theme and region for common issues/results and lessons. The TAs and PTAs play a key role in this consolidating analysis. The focal area PIRs are then discussed in the GEF Interagency Focal Area Task Forces in or around November each year and consolidated reports by focal area are collated by the GEF Independent M&E Unit based on the Task Force findings
- (iv) *Quarterly Progress Reports* - Short reports outlining main updates in project progress will be provided quarterly to the local UNDP Country Office and the UNDP-GEF regional office by the The NGBP programme management. The format will be provided.
- (v) *Periodic Thematic Reports* - As and when called for by UNDP, UNDP-GEF or the Implementing Partner, The NGBP programme management will prepare Specific Thematic Reports, focusing on specific issues or areas of activity. The request for a Thematic Report will be provided to the project team in written form by UNDP and will clearly state the issue or activities that need to be reported on. These reports can be used as a form of lessons learnt exercise, specific oversight in key areas, or as troubleshooting exercises to evaluate and overcome obstacles and difficulties encountered. UNDP is requested to minimize its requests for Thematic Reports, and when such are necessary will allow reasonable timeframes for their preparation by the project team;
- (vi) *Project Terminal Report* - During the last three months of the project the project team will prepare the Project Terminal Report. This comprehensive report will summarize all activities, achievements and outputs of the Project, lessons learnt, objectives met, or not achieved structures and systems implemented, etc. and will be the definitive statement of the Project's activities during its lifetime. It will also lay out recommendations for any further steps that may need to be taken to ensure sustainability and replicability of the Project's activities;

Independent Evaluation

10. The project will be subjected to at least two independent external evaluations as follows:
- (i) *Mid-term Evaluation* - will be undertaken at the end of the second year of implementation. The Mid-Term Evaluation will determine progress being made towards the achievement of outcomes and will identify course correction if needed. It will focus on the effectiveness, efficiency and timeliness of project implementation; will highlight issues requiring decisions and actions; and will

present initial lessons learned about project design, implementation and management. Findings of this review will be incorporated as recommendations for enhanced implementation during the final half of the project's term. The organization, terms of reference and timing of the mid-term evaluation will be decided after consultation between the parties to the project document. The Terms of Reference for this Mid-term evaluation will be prepared by the UNDP CO based on guidance from the Regional Coordinating Unit and UNDP-GEF.

- (ii) *Final Evaluation*_- will take place three months prior to the terminal tripartite review meeting, and will focus on the same issues as the mid-term evaluation. The final evaluation will also look at impact and sustainability of results, including the contribution to capacity development and the achievement of global environmental goals. The Final Evaluation should also provide recommendations for follow-up activities. The Terms of Reference for this evaluation will be prepared by the UNDP CO based on guidance from the Regional Coordinating Unit and UNDP-GEF.

Audit

11. The NGBP programme management will provide the UNDP Resident Representative with certified periodic financial statements, and with an annual audit of the financial statements relating to the status of UNDP (including GEF) funds according to the established procedures set out in the Programming and Finance manuals. The Audit will be conducted by the legally recognized auditor of the government, or by a commercial auditor engaged by the Government.

Indicative Monitoring and Evaluation Workplan and Corresponding Budget

12. Table 1 present an indicative M&E workplan and corresponding budget.

Table 1: Indicative Monitoring and Evaluation Work plan and corresponding budget

Type of M&E activity	Responsible Parties	Budget US\$ <i>Excluding project team time</i>	Time frame
Inception Workshop	<ul style="list-style-type: none"> ▪ Project Coordinator ▪ UNDP CO ▪ UNDP GEF 	10,000	Within first two months of project start up
Inception Report	<ul style="list-style-type: none"> ▪ Project Team ▪ UNDP CO 	<ul style="list-style-type: none"> ▪ None 	Immediately following IW
Measurement of Means of Verification for Project Purpose Indicators	<ul style="list-style-type: none"> ▪ Project Coordinator will oversee the hiring of specific studies and institutions, and delegate responsibilities to relevant team members 	<ul style="list-style-type: none"> ▪ 40,000 ▪ To be finalized in Inception Phase and Workshop. ▪ Indicative cost ▪ 	Start, mid and end of project
Measurement of Means of Verification for Project Progress and Performance (measured on an annual basis) + workshop for dissemination	<ul style="list-style-type: none"> ▪ Oversight by Project GEF Technical Advisor and Project Coordinator ▪ Measurements by regional field officers and local IAs 	<ul style="list-style-type: none"> ▪ 115,000 ▪ To be determined as part of the Annual Work Plan's preparation. ▪ 	Annually prior to APR/PIR and to the definition of annual work plans
Conduct METT	<ul style="list-style-type: none"> ▪ The NGBP programme management and consultant 	<ul style="list-style-type: none"> ▪ 5,000 	Mid-term and end
APR and PIR	<ul style="list-style-type: none"> ▪ Project Team ▪ UNDP-CO ▪ UNDP-GEF 	<ul style="list-style-type: none"> ▪ None 	Annually
TPR and TPR report	<ul style="list-style-type: none"> ▪ Government Counterparts ▪ UNDP CO 	<ul style="list-style-type: none"> ▪ None 	Every year, upon

	<ul style="list-style-type: none"> ▪ Project team ▪ UNDP-GEF Regional Coordinating Unit 		receipt of APR
Steering Committee Meetings	<ul style="list-style-type: none"> ▪ Project Coordinator ▪ UNDP CO 	<ul style="list-style-type: none"> ▪ None 	Following Project IW and subsequently at least once a year
Periodic status reports	<ul style="list-style-type: none"> ▪ Project team 	<ul style="list-style-type: none"> ▪ 10,000 	To be determined by Project team and UNDP CO
Technical reports	<ul style="list-style-type: none"> ▪ Project team ▪ Hired consultants as needed 	<ul style="list-style-type: none"> ▪ 15,000 	To be determined by Project Team and UNDP-CO
Mid-term External Evaluation	<ul style="list-style-type: none"> ▪ Project team ▪ UNDP- CO ▪ UNDP-GEF Regional Coordinating Unit ▪ External Consultants (i.e. evaluation team) 	<ul style="list-style-type: none"> ▪ 20,000 	At the mid-point of project implementation.
Final External Evaluation	<ul style="list-style-type: none"> ▪ Project team, ▪ UNDP-CO ▪ UNDP-GEF Regional Coordinating Unit ▪ External Consultants (i.e. evaluation team) 	<ul style="list-style-type: none"> ▪ 30,000 	At the end of project implementation
Terminal Report	<ul style="list-style-type: none"> ▪ Project team ▪ UNDP-CO ▪ External Consultant 	<ul style="list-style-type: none"> ▪ None 	At least one month before the end of the project
Lessons learned	<ul style="list-style-type: none"> ▪ Project team ▪ UNDP-GEF Regional Coordinating Unit 	<ul style="list-style-type: none"> ▪ 15,000 (average 3,000 per year) 	Yearly
Audit	<ul style="list-style-type: none"> ▪ UNDP-CO ▪ Project team 	<ul style="list-style-type: none"> ▪ 15,000 (average \$3,000 per year) 	Yearly
Visits to field sites (UNDP staff travel costs to be charged to IA fees)	<ul style="list-style-type: none"> ▪ UNDP Country Office ▪ UNDP-GEF Regional Coordinating Unit (as appropriate) ▪ Government representatives 	<ul style="list-style-type: none"> ▪ 15,000 (average one visit per year) 	Yearly
TOTAL indicative COST Excluding project team time and UNDP staff and travel expenses		<ul style="list-style-type: none"> ▪ US\$ 290,000 	

Result Measurement Table

13. Table 2 lists the main impact indicators used, along with the justification for their choice and institutional responsibility for monitoring the indicators

Table 2 –Rationale for Selection of Indicators

Level	Performance Indicators	Rationale for Selection
Programme Objective	<p>1. Contribution of NGBP towards achievement of biodiversity target for grasslands biome. The target is 22.3% of vegetation types within natural areas in the grasslands biome</p> <p>2. Biodiversity Intactness Index (BII)</p> <p>3. Degradation indicator – percentage of biome degraded</p>	<p>1. This indicator reflects the extent to which production sectors are contributing towards the overall goal of sustaining and securing biodiversity and ecosystem service in the grasslands biome. Targets for vegetation types have been set in the NSBA derived based on species-area curves (i.e. the higher species turn-over is, the higher the target will be) and ranged from 17 to 29% of the original extent of vegetation type. An additional 22.3% of the biome is required to achieve biodiversity targets, taking into account that already conserved within protected areas. Note that this additional area has to be distributed within all vegetation types according to the target requirements.</p> <p>2. The BII developed for use in the Southern Africa Millennium Ecosystem Assessment is an indicator of the state of biological diversity within a geographic area. It uses spatial data on species richness and land use activities per ecosystem type to weight estimates, provided by taxon experts, of the reduction in abundance of all well known species under a range of land uses. This compound index can be expressed from 0 (complete loss of biodiversity) and 100 (no impact on biodiversity). A BII calculated by Scholes & Biggs (2005) was revised based on SANBI’s estimated habitat degradation figure.</p> <p>3. Habitat degradation is difficult to quantify based on remote-sensing (used to derive land cover). Based on the land cover, habitat degradation is estimated at 6%, which is an underestimate. SANBI revised the extent of habitat degradation based on Hoffman & Aswell (2001). The data was collected at the district level, based on expert knowledge. For all districts predominantly falling in the grassland biome, the average extent of soil erosion and veld degradation (due to change in species composition, alien plant invasions, loss in vegetation cover, bush encroachment, and deforestation) was calculated. Soil erosion was estimated at 8% and veld degradation at 10%. A degradation range of 11 – 20% is estimated.</p>
Outcome 1: Enabling environment for biodiversity conservation in production landscapes in the grasslands biome	<p>1. Bioregional plans for grasslands biome gazetted at appropriate levels.</p> <p>2. Number of key affiliated private and public sector organisations that have entered into MoU with NGBP contributing towards conservation targets.</p>	<p>1. This indicator will provide a spatial assessment of the extent to which the enabling environment is strengthened</p> <p>2. This indicator is a measure of the extent to which the NGBP is successful in mobilising partnerships that directly contribute towards the programme objectives</p>

Level	Performance Indicators	Rationale for Selection
is strengthened	<p>3. Institutional mainstreaming effectiveness scorecard for GDACE, FSA.</p> <p>4. Amount of funds allocated for biodiversity conservation</p> <ul style="list-style-type: none"> - enabling environment - agriculture - forestry - urban - coal mining 	<p>3. This provides a measure of the extent to which key partner institutions in the NGBP are effective in mainstreaming biodiversity into their work</p> <p>4. An increase in financial resources for securing and sustaining the grassland biome will indicate real commitment from production bodies for BD Mainstreaming</p>
Outcome 2: Mainstream grassland biodiversity conservation objectives into agriculture	<p>1. Agricultural laws, policies and guidelines incorporate biodiversity management objectives.</p> <p>2. Certification system and marketing programme in place for environmentally appropriately farmed red meat.</p> <p>3. Amount of agricultural land in the grasslands biome where agricultural planning, decision making and extension incorporate biodiversity management objectives.</p> <p>3.1. Amount of land in demonstration districts where biodiversity management good practice (BMGP) is being implemented by farmers.</p> <p>3.2. Amount of land in demonstration districts within biodiversity priority areas where stewardship has secured land for biodiversity conservation.</p>	<p>1. This indicator will show whether demonstration lessons and best practice have been elevated to the policy level and replicated</p> <p>2. This measures whether a key incentive has been successfully established for biodiversity friendly rangeland management</p> <p>3. This shows the extent of direct impact of the programme on securing and sustaining grassland biodiversity</p>
Outcome 3: The forestry sector directly contributes to biodiversity conservation objectives in the grasslands biome	<p>1. Amount of forestry estate in grasslands biome under</p> <ul style="list-style-type: none"> 1.1 Plantation 1.2 Options areas, i.e. existing unplanted forestry company owned land that is better managed 1.3 Formal conservation areas <p>2. No new plantation development in biodiversity priority areas within the grasslands biome</p> <p>3. Industry certification system and standards better incorporate grassland biodiversity objectives.</p>	<p>1. This shows the extent of direct impact of the programme on securing and sustaining grassland biodiversity through</p> <ul style="list-style-type: none"> 1.1 The spatial location of new plantations 1.2 Improved land practices within the agricultural sector 1.3 Conservation stewardship <p>2. This is a measure of whether the programme is successful or not in aligning biodiversity planning with forestry expansion plans</p> <p>3. This indicates an improvement in the effectiveness of certification as a market mechanism</p>

Level	Performance Indicators	Rationale for Selection
<p>Outcome 4: Grassland biodiversity management objectives mainstreamed into urban economy in Gauteng</p>	<ol style="list-style-type: none"> 1. Biodiversity priorities accommodated in municipal open space frameworks and spatial development frameworks. 2. Conservation areas give legal protection to refugia representative of grassland biodiversity. 3. Institutional mainstreaming effectiveness scorecard for GDACE, Tshwane MC, Ekurhuleni MC, Jo'burg MC, Mogale LM, West Rand DM, Sedibeng DM and Lesedi LM 	<ol style="list-style-type: none"> 1. This is a measure of whether the programme is successful or not in aligning provincial biodiversity planning with municipal planning systems 2. This shows the extent of direct impact of the programme on securing and sustaining grassland biodiversity through protection of refugia 3. This provides a measure of the extent to which key institutions in the urban component are effective in mainstreaming biodiversity into their work
<p>Outcome 5: Biodiversity management secured in coal mining sector</p>	<ol style="list-style-type: none"> 1. Amount of land where wetlands protected through wetland mitigation and/or banking offsets 2. Biodiversity planning information used by mining companies and regulatory authorities to plan new coal mines 	<ol style="list-style-type: none"> 1. This shows the extent of direct impact of this market mechanism on securing wetlands 2. This is a measure of whether the programme is successful or not in aligning provincial biodiversity planning with coal mining expansion plans

PART IX: REFERENCES

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SIGNATURE PAGE

Country: South Africa (ZAF 10)

UNDAF Outcome(s)/Indicator(s): National Biodiversity and Action Plan Adopted

Expected Outcome(s)/Indicator (s)/MYFF Service Line:

MYFF Service Line: Conservation and sustainable use of biodiversity

MYFF Expected Outcome(s): Commitments under global environment conventions incorporated into national environment & development framework

Outcome Indicators: Adoption by government of national policy & legislation on Biodiversity conservation & sustainable use

Expected Output(s)/Indicator(s):

Intended Output:

National policy & legislation that clearly assigns legal responsibility of key national & provincial Biodiversity agencies, institutional commitment at national, provincial & local conservation planning studies & implementation to build capacity at local level, and Biodiversity education strategy.

Output indicators:

National Strategy on Sustainable use of Biodiversity completed

Implementing partner: South African National Biodiversity Institute

Other Partners: National Dept. of Environment Affairs & Tourism (DEAT), Dept. Water Affairs & Forestry (DWAF).

Programme Period: 01.10.2007 – 31.12.2012

Programme Component: Environmentally sustainable development to reduce human poverty

Project Title: National Grasslands Biodiversity Programme (NGBP)

Project ID: 00053253

Award/ Proposal ID: 00045129

PIMS ID: 2929

Project Duration: 5 yrs

Management Arrangement: National Execution (NEX)

Total US \$: USD 45,561,764

Allocated resources:

GEF: 8,300,000

Government: 27,343,926

Others: 9,917,838

Total Co-financing: USD 37,261,764

Agreed by:

On behalf of:	Signature	Date	Name/Title
National Treasury			Shaheed Rajie, Chief Director
GEF Focal Point, DEAT			Pam Yako, Director General, DEAT
Executing Agency, SANBI			CEO, SANBI
UNDP			Scholastica Sylvan Kimaryo, RC/Resident Representative, UNDP