National Grasslands Biodiversity Programme (NGBP)

BU: ZAF 10 Proposal ID: 00045129

ANNEXES

TABLES

ANNEX I: Threats and Root Causes Matrix

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 conserv ation priorities in the grasslands biome

Table 14: Threats and Root Causes Matrix

Threat/Impact	Root causes	Management issues/key barriers	Solutions: Interventions from Project / Barrier removal activity	Baseline activity
Sector: Agriculture – 65.2% of the area occupied by the grasslands biome are classified as rangelands, dedicated to cattle production or game farming. Under the right conditions, cattle/game production can constitute a sustainable, conservation compatible activity in the biome, allowin g many components of biodiversity to be maintained *in situ*. However, inappropriate rangeland management practices lead to localized habitat degradation. Currently 22.7 % of the grasslands are commercially cultivated. Major crops are maize, groundnuts, soy beans, sunflowers, pastures and sugar cane. At a biome level the total amount of land cultivated has decline by about 1.8% over the past decade. Maize is expected to continue to decline in extend while sugar cane, bio -fuels related crops, certain vegetabl es (e.g. potatoes) and pastures (related to expansion of dairy industry) are expected to increase. Irrigated and dryland crops both have a relatively high impact on biodiversity relative to rangeland. Changes in relative prices influences decisions at farm level regarding quantity of land dedicated to cattle ranching and cultivation. Although cultivation is not considered to be a major threat at present changes in relative prices may make some commodities, i.e. bio -fuels, more attractive in future. Mechanis ms are needed to insure that such expansion accommodates biodiversity management needs.				
Threat rangeland - Localised habitat degradation and soil erosion through overgrazing and/or trampling - Inappropriate fire regime impacts invertebrate, plant diversity and smaller mammals and birds Impact rangeland - Change in species diversity (loss of invertebrates, etc) - Loss in vegetation cover and diversity - Changes in hydrological functioning/reduced stream flow - Overgrazed areas are often colonised by alien invasive species Potential future cultivation	Mismatch between economic drivers and environmental management needs leads to inappropriate grazing management (nu mbers of stock, seasonality of grazing, type of livestock/game stocked) Consumer expectations favour grain fed beef produced in feedlots: increase in feedlots leads to higher stock numbers & increased cultivation Total economic values for grasslands, including hydrological service functions are not pecuniary: short term	Barrier: Management Tools Never been a focus on biodiversity in veld management practices that have focused on production: need to develop biodiversity compatible grazing management systems Weak links within a nd between tertiary education institution, research, government, industry associations and farmers regarding research on biodiversity appropriate veld management. Weak mechanisms for supplying above information to land users and owners Barrier: Market Fa ilure The costs of biodiversity management not reflected in consumer price: domestic market for environmentally appropriately farmed red meat products nascent	Barrier Removal: Management Tools Demonstrate win -win compatible rangeland management: develop biodiversity compatible grazing management best practice Get corr ect information to farmers through publicising success stories, stimulating interest from farmers etc Incorporate biodiversity into appropriate agricultural laws and polices at national and provincial levels Barrier Removal: Incentives Develop certifi ed system for range -fed beef: Promote consumer awareness in support of range -fed beef and biodiversity appropriate practices;	Poverty alleviation programmes - Working for Water Working for Wetlands Working for Fire Land Care addressing degradation in communal areas Wetland Management - Programs to improve stream flow through habitat rehabilitation Species Recovery Plans - Poison Working Group Crane, Blue swallow, Rudds Lark, Whitewinged Flufftail, Game Bird etc National Department of Agriculture initiatives such as veld management guidelines, Sustainable Land Use Management Bill

Threat/Impact	Root causes	Management issues/key barriers	Solutions: Interventions from Project / Barrier removal activity	Baseline activity
threat Localised direct habitat loss: - Habitat fragmentation - Species loss (plant, animal, birds, invertebrate etc) Disruption of ecosystem function: - Hydrological regimes changed through abstraction of water, drainage (threats to marshes) - Eutrophication of marshlands - Change in species composition - Soil structure changed - Soil erosion	economic benefits drive crop expansion which has a permanent effect on biodiversity Weak integration of biodiversity management strategies and land use planning and decision making systems administered by agricultural authorities	Barrier: Institutional Capacity Weak integration of conservation management needs into agric ulture sector programs. Fragmentation of expertise and lack of coordination between provinces, departments and local government for extension services Biodiversity information not available at an appropriate scale needed for agricultural decision makers r esulting in crop expansion in inappropriate areas Know how to apply regulations/guidelines for the appropriate use of pesticides, herbicides and fertilisers as well as appropriate cultivation practises in an around wetlands, riparian zones and rivers lim ited at farm level Barrier: Management Capacity Present mindset of agricultural decision makers is production focused and excludes biodiversity objectives: environmental awareness of the value of the ecosystem services supplied by grasslands amongst government, private sector associations, farmers and agricultural consultants/advisors limited	Promote use of rates exemption in Property Rates Act linked to formal conservation of privately owned land. Barrier Removal: Ins titutional Strengthening Capacity building of the organized agricultural sector 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 so that these areas are avoided: engage with bio -fuels sector to pro -actively plan any expansion so as to avoid biodiversity priority areas Barrier Removal: Management Capacity Facilitation of landowner/user response, through engagement of industry associations (AgriSA, NAFU, AgriBusiness, RPO, NERPO, Wildlife SA; GrainSA etc) Demonstrate good practice for biodiversity best management practices re river ecosystems	Provincial Department of Agriculture's research initiativ es Stewardship initiatives – Ekangala, conservancies etc Farmer study groups with production focus could provide conduit for environmental awareness Existing no tillage/minimum tillage practices amongst some crop sectors Initiative for green certificat ion of sugar cane Bio-control programs for invasive alien species Ongoing initiatives by industry to improve efficiency re water use, fertilizer use etc DWAF initiative to list other agricultural commodities as a stream flow reduction activity Limited protected area network of 2.8% of grasslands biome – initiative by SANParks to create national grasslands park and by provincial authorities to expand their limited protected area network in grassland

Threat/Impact	Root causes	Management issues/key barriers	Solutions: Interventions from Project / Barrier removal activity	Baseline activity
Sector: Forestry - Plantations of exotic species of timber (predominantly *Eucalyptus* and *Pinus* species): Commercial tree plantations replace grasslands with monoculture stands. Some 1.35 million hectares of grasslands are presently under tree plantation. The expansion in tree plantations in South Africa and other sub-tropical/temperate environments has provided the world with new sources of soft wood (for pulp and other applications). While this has reduced pressures on natural forest stands, it has reduced grassland biodiversity. The industry has taken steps to improve environmental standards, such as through induction of certification schemes, however there is need to ensure that these accommodate all conservation values.				
Direct Habitat Loss - Fragmentation of habitat - Loss of beta diversity (also increase, particularly of arboreal species) - Extirpation of species (loss of plant and invertebrate species and associated ecological processes) Disruption of ecosystem function: - Altered hydrological systems: reduced water runoff for human needs into wetlands - Increased wood biomass leads to higher intensity fires when uncontrolled bush fires occur, leading to loss of ecosystem regenerative capacity - Spread of Invasive Alien Species (IAS)	Poor land use planning means areas for biodiversity conservation in planned forestry estate have not been identified Total economic values for grasslands, including hydrological service functions are not pecuniary	Barrier: Management Capacity Need to determine and negotiate trade offs between location of future production and biodiversity management in new forestry estate Little biodiversity best management practice tools, guidelines and capacity within forest industry to manage unplanted forestry owned land for biodiversity conservation: limited scientific understanding regarding the minimum viable areas needed to protect the different components of grassland biodiversity in set asides Barrier: Market Failure Existing certification schemes do not adequately incorporate grassland biodiversity management objectives Forestry management dominated by command and control rather than by incentive schemes and industry led strategies	Barrier Removal: Management Capacity - Incorporate biodiversity priority areas into planning and decision-making for new plantations so that these areas are avoided - Identification of biodiversity priority areas that overlap with unplanted forestry owned land to be formally conserved resulting in tax rebates -Develop and improve biodiversity best management practice tools, guidelines and capacity (e.g. inventory, monitoring systems, management objectives, fire regimes) - Establishment of a network of specialists and other stakeholders to provide capacity, co-ordination of activities, generation of funding and lobbying activities for grasslands conservation Barrier Removal: Incentives Strengthen market incentive, i.e. the certification programs, to recognise conservation value of grasslands; Develop implementable certification for small growers Develop market based instruments to incentivise self-regulation (tradable rights)	DWAF and Forestry SA process for wetland and riparian zone delineation programme Working for Water: dialogue with industry on plantation locations /safeguard measures for alien species Forest Stewardship Council Certification system and processes – Plantation Policy Review, National Initiative and small grower certification initiative DWAF planning for expansion process (SEA in E Cape etc) Forestry SA support for Working on Fire Mondi Wetlands Programme Company initiatives to support environmental interventions in grasslands (e.g. Tree Routes) Limited protected area network of 2.8% of grasslands biome – initiative by SANParks to create national grasslands park and by provincial authorities to expand their limited protected area network in grassland

Threat/Impact	Root causes	Management issues/key barriers	Solutions: Interventions from Project / Barrier removal activity	Baseline activity
Sector: Urban - Urbanisation in Gauteng in its present trajectory will result in unmitigated development and the loss of refugia representative of grassland biodiversity. The grasslands in Gauteng are important repositories of biodiversity, and there is a need in to integrate economic and ecological management objectives. Gauteng represents the economic powerhouse of South Africa and is home to policy and decision-makers. The potential impact of influencing attitude change towards a better understanding of the role of biodiversity and ecosystem services in underpinning Gauteng's growth amongst decioon-makers caould contribute to a more sustainable future for SA as a whole.				
Ecosystem degradation and loss: construction in ecologically significant green space Habitat and specie loss - Loss of endemic habitats and Red List species (Juliana Golden Mole), plants and invertebrates - Potential loss of at least 42 species of special concern - Alteration of species composition	Sub-optimal coordination and collaboration between spheres of government responsible for land use planning, decision making and management Social and economic development pressures of expanding metropolitan area Inadequate penalties for non-compliance with development strictures	Barrier: Institutional Capacity Biodiversity partially factored into the decision-making process, but there is not enough capacity at the: (a) assessment process; (b) decision-making process; 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 community buy-in is required Barrier: Management Tools Inadequate awareness of high biodiversity and ecosystem values within the conurbation especially amongst decision makers Tools to facilitate trade offs limited	Barrier Removal: Institutional Capacity: - 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 professional associations dealing with property development - Build capacity of the municipal and provincial environmental departments and Councillors in reviewing EIAs, land use applications etc - Build economic case and incorporate into provincial spatial development strategies, SDFs of IDPs, OSFs etc Barrier Removal: Management Tools - Develop guidelines and tools for biodiversity management in priority areas, which are not part of protected area network, to assist the decision-making system - Demonstrate tradeoffs that complement 'command and control' - Attitude change amongst decision makers	Implementation of Gauteng's systematic biodiversity conservation plan as adopted by provincial cabinet Protected Areas: GDACE and municipalities – management of existing protected area network Policy Development and Enforcement Municipalities: strengthening planning and zoning requirements and IDPs Province: - Strengthen EIA implementation - Policy level interventions such as urban edge, ridges etc Wetland Management - Programs to improve stream flow through habitat rehabilitation - Working for Wetlands

Threat/Impact	Root causes	Management issues/key barriers	Solutions: Interventions from Project / Barrier removal activity	Baseline activity
Sector: Coal Mining – The demand domestically and internationally for coal has increased and this is expected to continue in light of the global energy crisis. SA is one of the top five countries in the world in terms of coal production, consumption, exports an d reserves. 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 sector imposes significant off site impacts, particularly on wetlands affected by water abstraction.				
Disruption of ecosystem function: - Altered hydrological systems - Acidification of the soil - Nutrient cycling on rehabilitated land altered - Water quantity and quantity affected because of altered patterns of infiltration, drainage & groundwater movement	Total economic values for grasslands, including hydrological service functions are not pecuniary	Barrier: Market Failure Focus on command and control to regulate wetland/water use is expensive to enforce and inefficient Market mechanisms to promote wetland/water conservation nascent Barrier: Institutional Capacity Institutional capaci ty to regulate markets are weak	Barrier Removal: Institutional Capacity Improve capacity to manage offset: wetland mitigation and banking Incorporate biodiversity priority areas into planning and decision -making for new coal mines so that these area s are avoided if possible Barrier Removal: Market Incentives Consolidate biodiversity and mining offset policy Pilot voluntary wetland mitigation/banking scheme	Strong regulatory controls for on -site environmental management Big six coal mining compa nies have a triple bottom line approach and environmental policies Chamber of Mines and IUCN biodiversity and mining initiative CoalTech2020 research initiatives, with a focus on rehabilitation

ANNEX 11 Vegetation types in grasslands biome

The list of 80 vegetation types occurring in the grasslands biome showing the original extent (pre-transformation) of each vegetation type in hectares; the biodiversity target (area based) to ensure representation of biodiversity pattern; the ecosystem status[1]; and the area of remaining vegetation is shown below.

VEGETATION TYPE	Area (ha)	TARGET (%)	STATUS	% remaining
COASTAL GRASSLANDS				
Highveld Alluvial Vegetation	465685	31	VU	78
KwaZulu-Natal Sandstone Coastal Sourveld	31891	23	EN	25
Pondoland-Natal Sandstone Coastal Sourveld	130819	25	VU	71
Maputaland Wooded Grassland	99118	25	EN	54
Transkei Coastal Belt	163625	25	VU	80
KwaZulu-Natal Coastal Belt	632201	25	EN	50
Maputaland Coastal Belt	402486	25	VU	69
DRAKENSBERG GRASSLANDS				
Woodbush Granite Grassland	33986	27	CE	26
Lesotho Highland Basalt Grassland	2015483	27	LT	92
Stormberg Plateau Grassland	296434	27	LT	91
Amatole Montane Grassland	441955	27	LT	89
Northern Escarpment Quartzite Sourveld	136528	27	VU	62
Northern Drakensberg Highland Grassland	120881	27	LT	93
uKhahlamba Basalt Grassland	150327	27	LT	100
Southern Drakensberg Highland Grassland	647766	27	LT	95
Drakensberg Afroalpine Heathland	281166	27	LT	100
Drakensberg-Amatole Afromontane Fynbos	2391	27	LT	100
Barberton Montane Grassland	131522	27	VU	62
Northern Escarpment Dolomite Grassland	93876	27	EN	48
Northern Escarpment Afromontane Fynbos	987	27	LT	99
Amatole Mistbelt Grassland	15827	27	LT	97
Ithala Quartzite Sourveld	169464	27	LT	89
Wolkberg Dolomite Grassland	26084	27	LT	97
GRASSLAND BIOME SHRUBLANDS				
Drakensberg Montane Shrubland	348329	28	VU	68
Besemkaree Koppies Shrubland	967773	28	LT	97
Winburg Grassy Shrubland	157198	28	LT	89
Tarkastad Montane Shrubland	423967	28	LT	98

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[1] As natural habitat is lost or degraded in an ecosystem, its functioning is increasingly compromised, leading eventually to the collapse of the ecosystem and its associated ecosystem services, and to loss of species associated with that ecosystem. Ecosystem status is therefore based on how much of an ecosystem's original area remains intact, relative to three different thresholds. The thresholds are shown in the diagram below, and are based on best available science. Note that the threshold beyond which an ecosystem becomes critically endangered varies from 16% to 36%, depending on the ecosystem. The more species rich the ecosystem, the higher the threshold. This threshold is also known as the biodiversity target (BT).

VEGETATION TYPE	Area (ha)	TARGET (%)	STATUS	% remaining
Western Lesotho Basalt Shrubland	220832	28	LT	84
Senqu Montane Shrubland	373687	28	LT	86
Bloemfontein Karroid Shrubland	9452	28	LT	91
Northern Free State Shrubland	3003	28	LT	94
HIGHVELD GRASSLANDS				
Western Highveld Sandy Grassland	858127	24	CE	22
Paulpietersburg Moist Grassland	332989	24	EN	59
Lebombo Summit Sourveld	13570	24	EN	57
Rand Highveld Grassland	1026129	24	EN	58
Vredefort Dome Granite Grassland	92158	24	EN	59
Eastern Free State Sandy Grassland	1423816	24	EN	55
Leolo Summit Sourveld	2034	24	VU	66
Lydenburg Thornveld	155192	24	VU	78
Sekhukhune Montane Grassland	138119	24	VU	72
Amersfoort Highveld Clay Grassland	389655	24	VU	75
Bloemfontein Dry Grassland	491705	24	EN	59
Vaal Reefs Dolomite Sinkhole Woodland	34694	24	VU	77
Klerksdorp Thornveld	392811	24	VU	71
Carletonville Dolomite Grassland	911780	24	VU	76
Aliwal North Dry Grassland	716207	24	LT	88
Vaal-Vet Sandy Grassland	2274316	24	EN	37
Xhariep Karroid Grassland	1339190	24	LT	96
Egoli Granite Grassland	109319	24	EN	32
Karoo Escarpment Grassland	837830	24	LT	99
Zastron Moist Grassland	426814	24	VU	68
Frankfort Highveld Grassland	987636	24	VU	66
Lydenburg Montane Grassland	492128	24	VU	78
Northern KwaZulu-Natal Moist Grassland	596337	24	VU	73
KaNgwane Montane Grassland	965488	24	VU	63
Eastern Highveld Grassland	1266904	24	EN	55
Soweto Highveld Grassland	1451033	24	EN	53
Central Free State Grassland	1598226	24	VU	76
Soutpansberg Summit Sourveld	8620	24	LT	99
Waterberg-Magaliesberg Summit Sourveld	52586	24	LT	100
Strydpoort Summit Sourveld	26808	24	LT	99
Western Free State Clay Grassland	667057	24	LT	81
Wakkerstroom Montane Grassland	385309	24	LT	93
Eastern Free State Clay Grassland	1504352	24	EN	44
Tsakane Clay Grassland	128381	24	EN	56
SUB-ESCARPMENT GRASSLANDS				
Mabela Sandy Grassland	47706	23	VU	78
Tsomo Grassland	613687	23	VU	73
Umtata Moist Grassland	528250	23	EN	59
East Griqualand Grassland	866746	23	VU	74
KwaZulu-Natal Highland Thornveld	516966	23	LT	84
Mooirivier Highland Grassland	100403	23	VU	76
Drakensberg Foothill Moist Grassland	1289199	23	LT	82

| VEGETATION TYPE	Area (ha)	TARGET (%)	STATUS	% remaining
Southern KwaZulu-Natal Moist Grassland	227662	23	VU	66
Income Sandy Grassland	604106	23	VU	73
Midlands Mistbelt Grassland	657658	23	EN	47
Northern Zululand Mistbelt Grassland	80773	23	VU	76
Queenstown Thornveld	360630	23	LT	90
Bedford Dry Grassland	205087	23	LT	97
Low Escarpment Moist Grassland	178304	23	LT	94
Northern KwaZulu-Natal Shrubland	29207	23	LT	96

Natural habitat remaining (%)
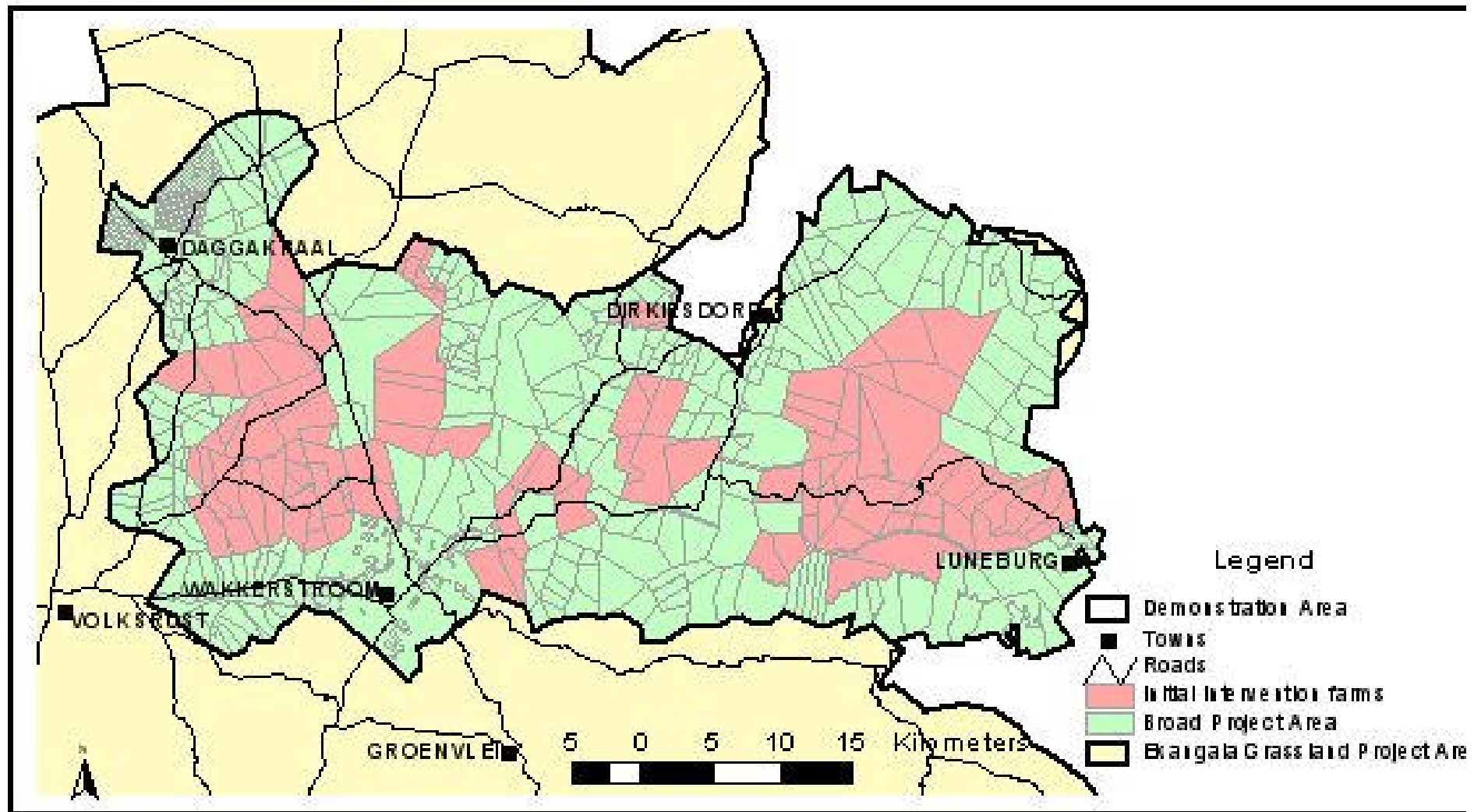
*biodiversity target

ANNEX III: Maps

Map 1 showing grasslands biome within South Africa
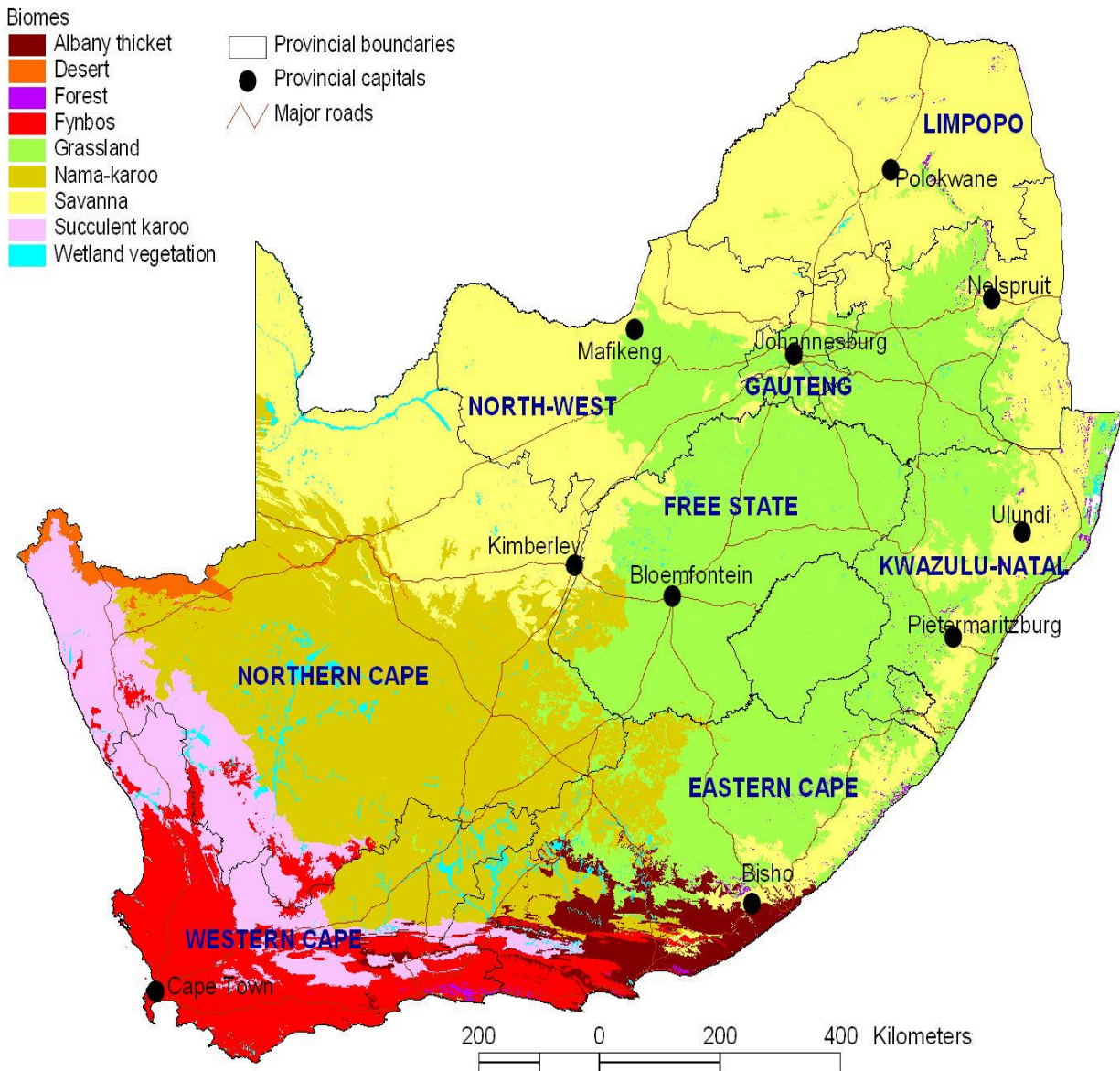
Biomes of South Africa, Lesotho and Swaziland as derived from Mucina, L & Rutherford, MC (eds.) 2004. Vegetation map of South Africa, Lesotho and Swaziland. Beta version 4.0, February 2004, NBI, CT

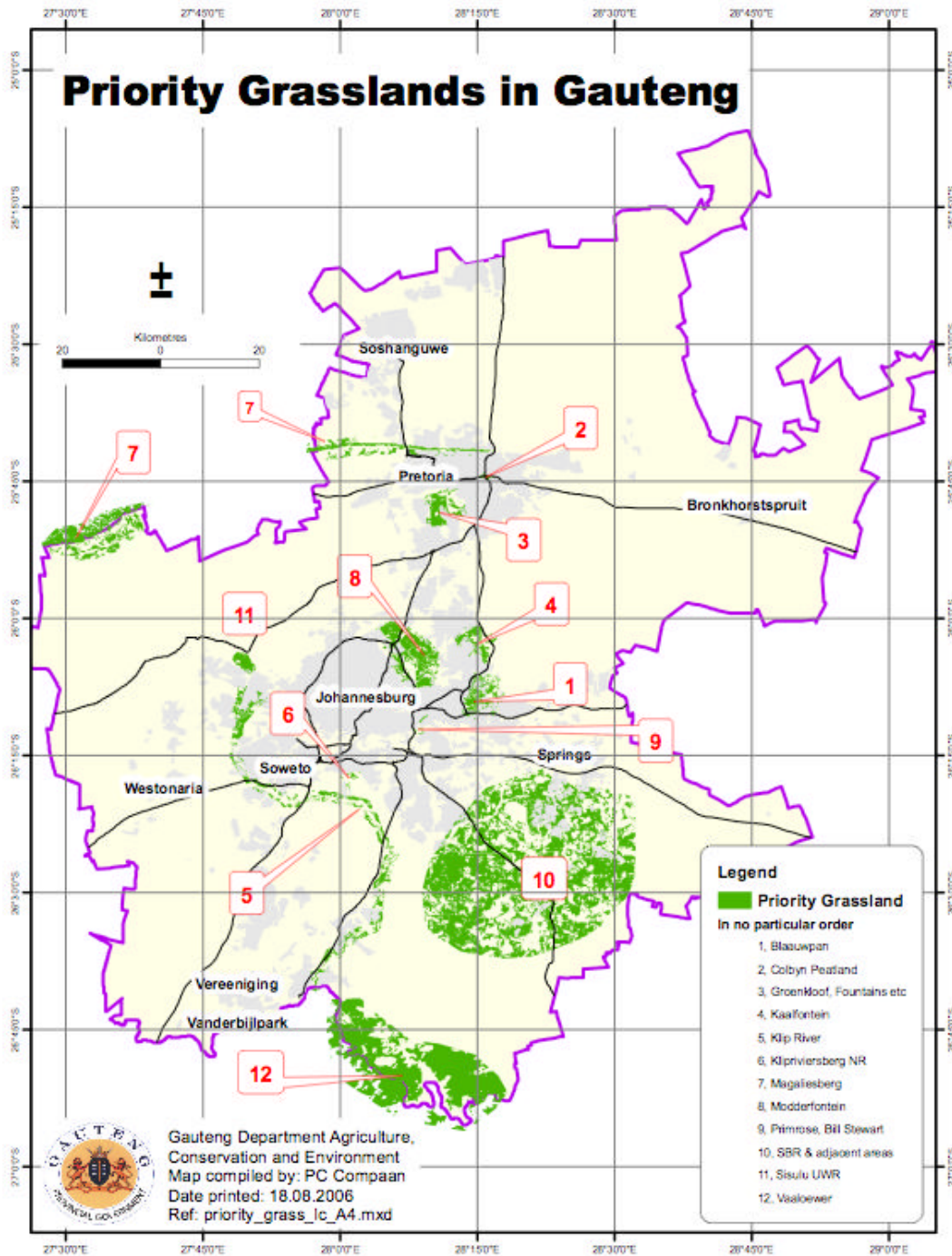*Map 2 showing Wakkerstroom/Luneberg agricultural demonstration, an area of 182 108 hectares located within Mpumalanga Province*

Legend

☐ Demonstration Area
■ Towns
⩙ Roads
▨ Initial Intervention farms
▨ Broad Project Area
☐ Ekangala Grassland Project Area

Map 3 showing Modder River inland river ecosystem demonstration, an area of 685 600 hectares located in the Free State Province
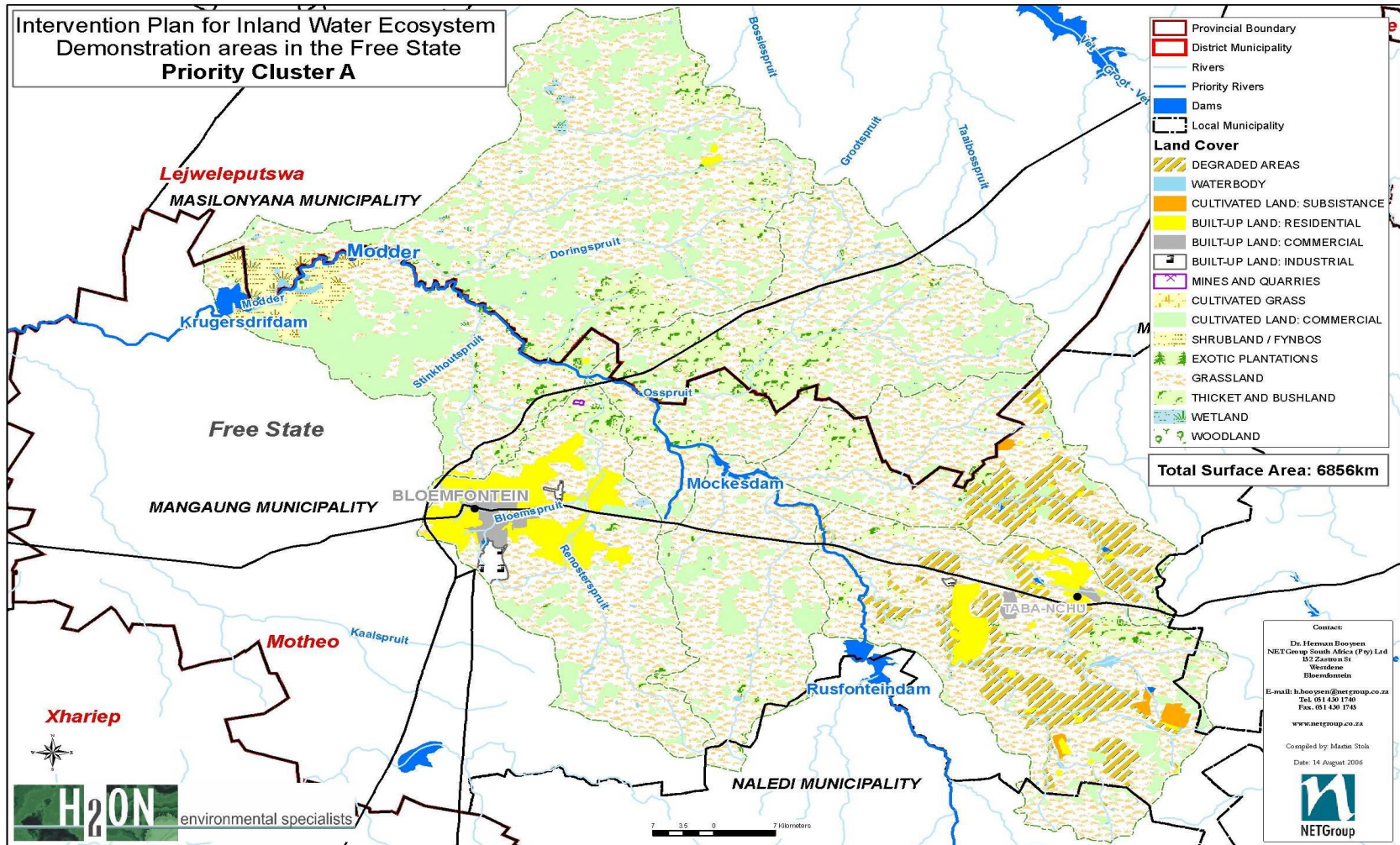
Map 4 showing priority areas to secure grassland biodiversity refugia within Gauteng province

Priority Grasslands in Gauteng

Kilometres
20   0   20

Soshanguwe

7
7
Pretoria
2
Bronkhorstspruit
3
8
11
4
Johannesburg
1
6
9
Springs
Soweto
Westonaria
5
10
Vereeniging
Vanderbijlpark
12

Legend
Priority Grassland
In no particular order
1. Blaauwpan
2. Colbyn Peatland
3. Groenkloof, Fountains etc
4. Kaalfontein
5. Klip River
6. Klipriviersberg NR
7. Magaliesberg
8. Modderfontein
9. Primrose, Bill Stewart
10. SBR & adjacent areas
11. Sisulu UWR
12. Vaaloewer

Gauteng Department Agriculture,
Conservation and Environment
Map compiled by: PC Compaan
Date printed: 18.08.2006
Ref: priority_grass_lc_A4.mxd

Map 5 showing priority grassland areas owned by forestry companies and identified for conservation action in Mpumalanga, KwaZulu-Natal and the Eastern Cape
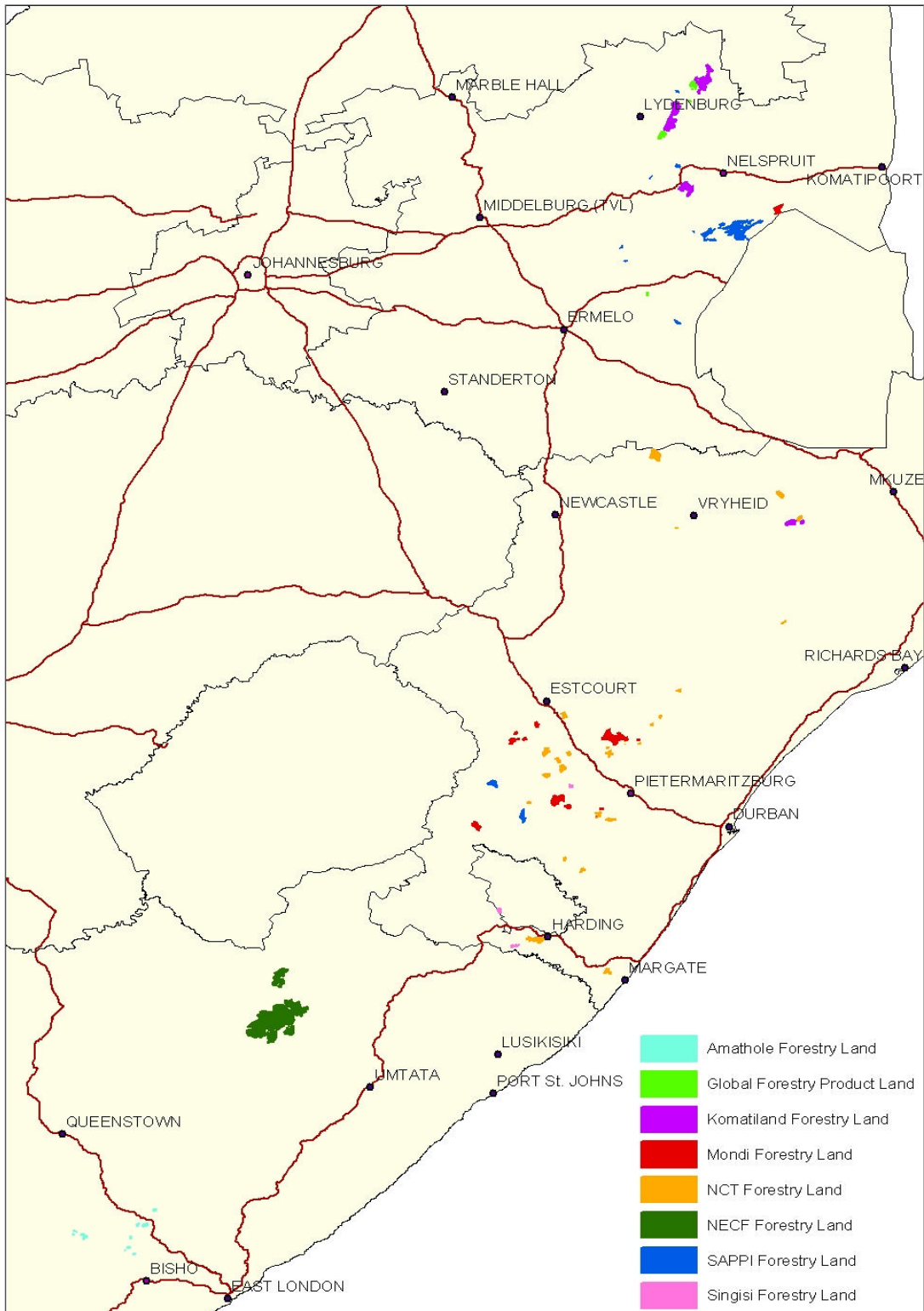
ANNEX lV: Stakeholder Participation Plan

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 Monmument, 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 Witwatesrand: 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 optimisers 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 maximse 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 theBirds 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.	- 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	- Grassland Steering Committee - Grassland Forum for strategic direction - SANBI Board through Biodiversity Directorate	- 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	- 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.	- Grassland Coordinating Unit - Grassland Steering Committee - Agriculture Task Team	- ARC, DoA, Provincial Agriculture, Provincial Conservation Authorities, WWF, Botsoc, contracted service providers
Outcome 3: The forestry sector directly contributes to biodiversity conservation	**LEAD:** Forestry SA **Supported:** Mondi, Sappi, NCT, Komatiland, Singisi, Steinhoff, Amathole, EWT, Grassland Society (GSSA),	- Promoting the incorporation of biodiversity management objectives in planning for expansion - Working with companies to	Grassland Coordinating Unit - Grassland Steering Committee - Forestry Task Team	- ARC, DWAF, Provincial Conservation Authorities, ENGOs, contracted service providers

Outcome	Lead Implementing and participating Organizations	Roles and responsibilities	Reporting/Steering	Technical and Management Support
objectives in the grasslands biome	DWAF, local small growers KZN Wildlife, MPTA, ECPB (provincial level stewardship)	formally securing priority areas within permanently 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

ANNEX V: Monitoring and Evaluation Plan

Programme monitoring and evaluation will be conducted in accordance with established UNDP and GEF procedures and will be provided by the NGBP team and the UNDP Country Office (UNDP -CO) with support from UNDP/GEF. The Logical Framework Matrix in Annex 1 provide s *performance* and *impact* indicators for programme implementation along with their corresponding *means of verification*. These will form the basis on which the programme's Monitoring and Evaluation system will be built.

MONITORING AND REPORTING

1.1. Inception Phase

A Inception Workshop will be conducted with the full programme team, relevant government counterparts, co - financing partners, the UNDP -CO and representation from the UNDP -GEF Regional Coordinating Unit, as well as UNDP-GEF (HQs) as appropriate.

A fundamental objective of this Inception Workshop will be to assist the NGBP team to understand and take ownership of the programme's goals and objectives, as well as finalize preparation of the programme's first annual work plan on the basis of the progr amme's logframe matrix. This will include reviewing the logframe (indicators, means of verification, assumptions), imparting additional detail as needed, and on the basis of this exercise finalize the Annual Work Plan (AWP) with precise and measurable perf ormance indicators, and in a manner consistent with the expected outcomes for the programme.

Additionally, the purpose and objective of the Inception Workshop (IW) will be to: (i) introduce programme staff with the UNDP -GEF *expanded team* which will support the programme during its implementation, namely the CO and responsible Regional Coordinating Unit staff; (ii) detail the roles, support services and complementary responsibilities of UNDP -CO and RCU staff vis à vis the programme team; (iii) 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 Programme Report (APR), Tripartite Review Meetings, as well as mid-term and final evaluations. Equally, the IW will provide an opportunity to inform the programme team on UNDP project related budgetary planning, budget reviews, and mandatory budget rephasings.

The IW will also provide an opportunity for all pa rties to understand their roles, functions, and responsibilities within the programme's decision -making structures, including reporting and communication lines, and conflict resolution mechanisms. The Terms of Reference for programme staff and decision -making structures will be discussed again, as needed, in order to clarify for all, each party's responsibilities during the programme's implementation phase.

1.2. Monitoring responsibilities and events

A detailed schedule of programme reviews meetings will b e developed by the programme management, in consultation with programme implementation partners and stakeholder representatives and incorporated in the Programme Inception Report. Such a schedule will include: (i) tentative time frames for Tripartite Revie ws, Steering Committee Meetings, (or relevant advisory and/or coordination mechanisms) and (ii) programme related Monitoring and Evaluation activities.

Day to day monitoring of implementation progress will be the responsibility of the Programme Manager ba sed on the programme's Annual Work Plan and its indicators. The Programme Team 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.

The Programme Manager will fine -tune the progress and performance/impact indicators of the programme in consultation with the full programme team at the Inception Workshop with support from UNDP -CO and assisted by the UNDP-GEF Regional Coordinati ng Unit. Specific targets for the first year implementation progress indicators together with their means of verification will be developed at this Workshop. These will be used to assess whether implementation is proceeding at the intended pace and in the right direction and will form part of the Annual Work Plan. The local implementing agencies will also take part in the Inception Workshop in which a common vision of overall programme goals will be established. Targets and indicators for subsequent years would be defined annually as part of the internal evaluation and planning processes undertaken by the programme team.

Measurement of impact indicators related to global benefits will occur according to the schedules defined in the Inception Workshop and te ntatively outlined in the indicative Impact Measurement Template at the end of this

Annex. The measurement, of these will be undertaken through subcontracts or retainers with relevant institutions (e.g. vegetation cover via analysis of satellite imagery, o r populations of key species through inventories) or through specific studies that are to form part of the projects activities (e.g. measurement carbon benefits from improved efficiency of ovens or through surveys for capacity building efforts) or periodic sampling such as with sedimentation.

Periodic monitoring of implementation progress will be undertaken by the UNDP -CO through quarterly meetings with the programme proponent, or more frequently as deemed necessary. This will allow parties to take stock and to troubleshoot any problems pertaining to the programme in a timely fashion to e nsure smooth implementation of programme activ ities.

The UNDP Country Office and UNDP -GEF RCU, will conduct yearly visits to projects that have field sites, or more often based on an agreed upon scheduled to be detailed in the programme's Inception Report / Annual Work Plan to assess first hand programme progress. Any other member of the 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 programme team, all SC members, and UNDP -GEF.

Annual Monitoring will occur through the **Tripartite Review (TPR).** This is the highest policy-level meeting of the parties directly involved in the i mplementation of a 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 the start of full implementation. The programme pro ponent 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.

The APR will be used as one of the basic documents for discussions in the TPR meetin g. The programme proponent will present the APR to the TPR, highlighting policy issues and recommendations for the decision of the TPR participants. The programme proponent also informs the participants of any agreement reached by stakeholders during the APR preparation on how to resolve operational issues. Separate r eviews of each programme component may also be conducted if necessary.

Terminal Tripartite Review (TTR)

The terminal tripartite review is held in the last month of programme operations. The programme proponent 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 programme as a whole, paying pa rticular attention to whether the programme has achieved its stated objectives and contributed to the broader environm ental objective. It decides whether any actions are still necessary, particularly in relation to sustainability of programme results, and acts as a vehicle through which lessons learnt can be captured to feed into other projects under implementation or for mulation.

The TPR has the authority to suspend disbursement if programme performance benchmarks are not met. Benchmarks will be developed at the Inception Workshop, based on delivery rates, and qualitative assessments of achievements of outputs.

1.3.   Programme Monitoring Reporting

The Programme Manager in conjunction with the UNDP -GEF extended team will be responsible for the preparation and submission of the following reports that form part of the monitoring process. Items (a) through (f) are mandator y and strictly related to monitoring, while (g) through (h) have a broader function and the frequency and nature is programme specific to be defined throughout implementation.

(a)   Inception Report (IR)

A Programme Inception Report will be prepared immediat ely 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 programme. This Work Plan would include the dates of specific field visits, support missions from the UNDP -CO and/or the Regional Coordinating Unit (RCU) or consultants, as well as time -frames for meetings of the programme's decision making structures. The Report will also i nclude the detailed programme 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 programme performance during the targeted 12 mont hs time-frame.

The Inception Report will include a more detailed narrative on the institutional roles, responsibilities, coordinating actions and feedback mechanisms of programme related partners. In addition, a section will be included on

progress to date on programme establishment and start-up activities and an update of any changed external conditions that may effect programme implementation.

When finalized the report will be circulated to programme counterparts who will be given a period of one calendar month in which to respond with comments or queries. Prior to this circulation of the IR, the UNDP - CO and UNDP-GEF's Regional Coordinating Unit will review the document.

(b)   **Annual Project Report (APR)**
The APR is a UNDP requirement and part of UNDP's Country Office central oversight, monitoring and programme management. It is a self-assessment report by programme 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 Programme Review. An APR will be prepared on an annual basis prior to the Tripartite Programme Review, to reflect progress achieved in meeting the programme's Annual Work Plan and assess performance of the programme in contributing to intended outcomes through outputs and partnership work.

The format of the APR is flexible but should include the following:

§   An analysis of programme 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
§   AWP, CAE and other expenditure reports (ERP generated)
§   Lessons learned
§   Clear recommendations for future orientation in addressing key problems in lack of progress

(c)   Project Implementation Review (PIR)

The PIR is an annual monitoring process mandated by the GEF. It has become an essential management and monitoring tool for programme managers and offers the main vehicle for extracting lessons from ongoing projects. Once the programme has been under implementation for a year, a Programme Implementation Report must be completed by the CO together with the programme. The PIR can be prepared any time during the year (July-June) 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 programme, the executing agency, UNDP -CO and the UNDP-GEF RCU.

The individual PIRs are collected, reviewed and analysed by the UNDP-GEF RCU 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 analyse 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.

The GEF M&E Unit provides the scope and content of the PIR. In light of the similarities of both APR and PIR, UNDP/GEF has prepared a harmonized format for reference.

(d)   Quarterly Progress Reports

Short reports outlining main updates in programme progress will be provided quarterly to the local UNDP -CO by the programme team.

(e)   Periodic Thematic Reports

As and when called for by UNDP, UNDP -GEF or the Implementing Partner, the programme team will prepare Specific Thematic Reports, focusing on specific issues or areas of activity. The request for a Thematic Report will be provided to the programme 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 programme team.

(f)   Programme Terminal Report

During the last three months of the programme the programme team will prepare the Programme Terminal Report. This comprehensive report will summarize all activities, achievements and outputs of the Programme,

lessons learnt, objectives met, or not achieved, structures and systems implemented, etc. and will be the definitive statement of the Programme'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 Programme's activities.

(g)   ***Technical Reports*** (programme specific - optional)

Technical Reports are detailed d ocuments covering specific areas of analysis or scientific sp ecializations within the overall programme. As part of the Inception Report, the programme team will prepare a draft Reports List, detailing the technical reports that are expected to be prepare d on key areas of activity during the course of the Programme, and tentative due dates. Where necessary this Reports List will be revised and updated, and included in subsequent APRs. Technical Reports may also be prepared by external consultants and sho uld be comprehensive, specialized analyses of clearly defined areas of research within the framework of the programme and its sites. These technical reports will represent, as appropriate, the programme's substantive contribution to specific areas, and wil l be used in efforts to disseminate relevant information and best practices at local, national and international levels.

(h)   ***Programme Publications*** (programme specific - optional)

Programme Publications will form a key method of crystallizing and disseminating the results and achievements of the Programme. These publications may be scientific or informational texts on the activities and achievements of the Programme, in the form of journal articles, multimedia publications, etc. These publications can be base d on Technical Reports, depending upon the rel evance, scientific worth, etc. of these Reports, or may be summaries or compilations of a series of Technical Reports and other research. The programme team will determine if any of the Technical R eports merit formal publication, and will also (in consultation with UNDP, the government and other relevant stakeholder groups) plan and produce these Publications in a consistent and recognizable format. Programme resources will need to be defined and allocated for these activities as appropriate and in a manner commensurate with the programme's budget.

2.   INDEPENDENT EVALUATION

The programme will be subjected to at least two independent external evaluations as follows: -

(i)   Mid-term Evaluation

An independent 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 programme implementation; will highlight issues requiring decisions and actions; and will present initial lessons learned about programme design, implementation and management. Findings of this review will be incorporated as recommendations for enhanced implementation during the final half of the programme's term. The organization, terms of refe rence and timing of the mid -term evaluation will be decided after consultation between the parties to the programme 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

An independent 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 d evelopment 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 Clause

The Government 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 Pr ogramming 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.

3. LEARNING AND KNOWLEDGE SHARING

Results from the programme will be disseminated within and beyond the programme intervention zone through a number of existing information sharing networks and forums. In addition:

a) The programme will participate, as relevant and appropriate, in UNDP/GEF sponsored networks, organized for Senior Personnel work ing on projects that share common characteristics. UNDP/GEF shall establish a number of networks, such as Integrated Ecosystem Management, eco -tourism, co-management, etc, that will largely function on the basis of an electronic platform.

b) The programme wi ll identify and participate, as relevant and appropriate, in scientific, policy -based and/or any other networks, which may be of benefit to programme implementation though lessons learned.

The programme will identify, analyze, and share lessons learned tha t might be beneficial in the design and implementation of similar future projects. Identify and analyzing lessons learned is an on - going process, and the need to communicate such lessons as one of the programme's central contributions is a requirement to be delivered not less frequently than once every 12 months. UNDP/GEF shall provide a format and assist the programme team in categorizing, documenting and reporting on lessons learned. To this end a percentage of programme resources will need to be allocat ed for these activities.

Table 18: Monitoring and Evaluation Work plan and corresponding Budget

Type of M&E activity	Responsible Parties	Budget US$ *Excluding programme team Staff time*	Time frame
Inception Workshop	§ Programme Manager § UNDP-CO § UNDP-GEF RCU	US$ 20,000	Within first two months of programme start up
Inception Report	§ Programme Team § UNDP-CO	None	Immediately following IW
Measurement of Means of Verification for Programme Purpose Indicators	§ Programme Manager will oversee the hiring of specific studies and institutions, and delegate responsibilities to relevant team members	To be finalized in Inception Phase and Workshop.	Start, mid and end of programme
Measurement of Means of Verification for Programme Progress and Performance (measured on an annual basis)	§ Oversight by Programme Manager § Measurements by regional field officers and local IAs	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
APR and PIR and IMEC	§ Programme Team § UNDP-CO § UNDP-GEF RCU		Annually
TPR and TPR report	§ Government Counterparts § UNDP-CO § Programme team § UNDP-GEF RCU		Every year, upon receipt of APR
Steering Committee Meetings	§ Programme Manager and Programme Coordinator § UNDP-CO		Following Programme IW and subsequently at least once or twice a year
Periodic status reports	§ Programme team	5,000	To be determined by Programme team and UNDP-CO
Technical reports	§ Programme team § Hired consultants as needed	Depending on the Product	To be determined by

Type of M&E activity	Responsible Parties	Budget US$ *Excluding programme team Staff time*	Time frame
			Programme Team and UNDP-CO
Mid-term External Evaluation	§ Programme team § UNDP-CO § UNDP-GEF RCU § External Consultants (i.e. evaluation team)	40,000	At the mid-point of programme implementation.
Final External Evaluation	§ Programme team § UNDP-CO § UNDP-GEF RCU § External Consultants (i.e. evaluation team)	40,000	At the end of programme implementation
Terminal Report	§ Programme team § UNDP-CO § External Consultants	10,000	At least one month before the end of the programme
Lessons learned	§ Programme team § UNDP-CO § UNDP-GEF RCU (suggested formats for documenting best practices, etc)	75,000	Yearly
Audit	§ UNDP-CO § Programme team	10,000 (average $2000 per year)	Yearly
Visits to field sites (UNDP staff travel costs to be charged to IA fees)	§ UNDP-CO § UNDP-GEF RCU (as appropriate) § Government representatives	25,000/ year	Yearly

Level	Performance Indicators	Rationale for Selection
Programme Objective	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	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.
	2. Biodiversity Intactness Index (BII)	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.
	3. Degradation indicator – percentage of biome degraded	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.
Outcome 1: Enabling environment for biodiversity conservation in production landscapes in the grasslands biome is strengthened	1. Bioregional plans for grasslands biome gazetted at appropriate levels.	1. This indicator will provide a spatial assessment of the extent to which the enabling environment is strengthened
	2. Number of key affiliated private and public sector organisations that have entered into MoU with NGBP contributing towards conservation targets.	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
	3. Institutional mainstreaming effectiveness scorecard for GDACE, FSA.	3. This provides a measure of the extent to which key partner institutions in the NGBP are effective in mainstreaming biodiversity into their work

Level	Performance Indicators	Rationale for Selection
	4. Amount of funds allocated for biodiversity conservation - enabling environment - agriculture - forestry - urban - coal mining	4. An increase in financial resources for securing a nd sustaining the grassland biome will indicate real commitment from production bodies for BD Mainstreaming
Outcome 2: Mainstream grassland biodiversity conservation objectives into agriculture	1. Agricultural laws, policies and guidelines incorporate biodiversity management objectives. 2. Certification system and marketing programme in place for environmentally appropriately farmed red meat. 3. Amount of agricultural land in the grasslands biome where agricultural planning, decision making and ext ension incorporate biodiversity management objectives. 3.1. Amount of land in demonstration districts where biodiversity management good practice (BMGP) is being implemented by farmers. 3.2. Amount of land in demonstration districts within biodiversi ty priority areas where stewardship has secured land for biodiversity conservation.	1. This indicator will show whether demonstration lessons and best practice have been elevated to the policy level and replicated 2.This measures whether a key incentiv e has been successfully established for biodiversity friendly rangeland management 3.This shows the extent of direct impact of the programme on securing and sustaining grassland biodiversity
Outcome 3: The forestry sector directly contributes to biodiversity conservation objectives in the grasslands biome	1. Amount of forestry estate in grasslands biome under 1.1 Plantation 1.2 Options areas, i.e. existing unplanted forestry company owned land that is better managed 1.3 Formal conservation areas 2. No new plantation development in biodiversity priority areas within the grasslands biome 3. Industry certification system and standards better incorporate grassland biodiversity objectives.	1.This shows the extent of direct impact of the programme o n securing and sustaining grassland biodiversity through 1.1 The spatial location of new plantations 1.2 Improved land practices within the agricultural sector 1.3 Conservation stewardship 2. This is a measure of whether the programme is successful or no t in aligning biodiversity planning with forestry expansion plans 3. This indicates an improvement in the effectiveness of certification as a market mechanism
Outcome 4: Grassland biodiversity management objectives	1. Biodiversity priorities accommodated in municipal open space frameworks and spatial development frameworks.	1. This is a measure of whether the programme is successful or not in aligning provincial biodiversity planning with municipal planning syst ems

Level	Performance Indicators	Rationale for Selection
mainstreamed into urban economy in Gauteng	2. Conservation areas give legal protection to refugia representative of grassland biodiversity. 3. Institutional mainstreaming effective ness scorecard for GDACE, Tshwane MC, Ekurhuleni MC, Jo'burg MC, Mogale LM, West Rand DM, Sedibeng DM and Lesedi LM	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 mai nstreaming biodiversity into their work
Outcome 5: Biodiversity management secured in coal mining sector	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	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

ANNEX VI: References

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