

*OUTCOME 10: ENVIRONMENTAL ASSETS  
AND NATURAL RESOURCES THAT ARE  
WELL PROTECTED AND CONTINUALLY  
ENHANCED*

## **OUTCOME 10: ENVIRONMENTAL ASSETS AND NATURAL RESOURCES THAT ARE WELL PROTECTED AND CONTINUALLY ENHANCED**

### **A. INTRODUCTION**

Government has agreed on 12 outcomes as a key focus of work between now and 2014. Each outcome has a limited number of measurable outputs with targets. Each output is linked to a set of activities that will help achieve the targets and contribute to the outcome. Each of the 12 outcomes has a delivery agreement which in most cases involves all spheres of government and a range of partners outside government. Combined, these agreements reflect government's delivery and implementation plans for its foremost priorities.

This delivery agreement is a negotiated charter which reflects the commitment of the key partners involved in the direct delivery process to working together in order to undertake activities effectively and on time to produce the mutually agreed-upon outputs which in turn will contribute to achieving outcome 10.

The delivery agreement provides detail to the outputs, targets, indicators and key activities to achieve outcome 10, identifies required inputs and clarifies the roles and responsibilities of the various delivery partners. It spells out who will do what, by when and with what resources. The outcomes apply to the whole of government and are long term. While the delivery agreement may contain longer-term outputs and targets, it also includes outputs and associated targets that are realisable in the next four years.

It also considers other critical factors impacting the achievement of outcome 10, such as the legislative and regulatory regime, the institutional environment and decision-making processes and rights, the resources needed and reallocation of resources where appropriate. This Delivery Agreement will be reviewed annually in light of learning by doing and monitoring and evaluation (M&E) findings. Accordingly, it will be refined over time and become more inclusive of the relevant delivery partners.

Section 24 of the Constitution stipulates that all South Africans have a right to an environment that is not harmful to their health or well-being and to have the environment protected for the benefit of present and future generations. The

Constitution compels us to take reasonable steps to prevent pollution and ecological degradation, promote conservation and secure ecologically sustainable development and use of natural resources.

As with the rest of the world, South Africa is not immune to the global environmental crisis. The country faces a number of current and emerging issues related to climate change, requiring intensive mobilisation to effectively respond to these challenges. Sustainable development and efforts to mitigate climate change and/or adapt to its impacts, in general, have a mutually beneficial relationship. Efforts to address climate change have co-benefits that contribute to sustainable development goals, and development that is sustainable, creates conditions that facilitate and enhance efforts to address climate change. Due to the nature of its impacts on environmental, social and economic systems, climate change can no longer be regarded as an environmental challenge but rather as a sustainable development challenge.

The country has a rich diversity of natural assets and is considered one of the world's most biodiverse countries. Although South Africa makes up just 2% of the global land area, it is home to almost 10% of the world's plants and 7% of reptiles, birds and mammals. Sadly, much of our terrestrial ecosystems and over 80% of our river systems are threatened. South Africa ranks among the world's 20 biggest greenhouse gas emitters and it is the highest emitter within the African Continent. Unaddressed, these issues could seriously undermine South Africa's ability to pursue a sustainable developmental path.

Spatial planning and spatial development decisions are still fragmented and there is still a need to address competing land uses and ensure that industry and infrastructure development programmes ensure the long-term sustainability of natural systems and the environment.

This summary suggests the need to address **four** critical problems:

1. **Water quality and quantity**
2. Reduce green house gas emissions, prepare strategies to cope with projected climate change impacts and reverse the rising trend in relation to the release of pollutants into the atmosphere.
3. Proper and better management of our environment.
4. Protection of our biodiversity.

In addressing the imperatives for sound environmental management and protection of natural assets, the following, inter alia, pieces of legislation were enacted to give effect to the constitutional rights of South Africans:

## **ACTS OF PARLIAMENT**

- **The National Environmental Management Act (NEMA)**, 1998, (Act No. 107 of 1998), which establishes the concepts of participatory, cooperative and developmental governance in environmental management. It establishes principles for environmental management and provides for structures to facilitate these.
- **The National Environmental Management Amendment Act**, 2003 (Act No. 46 of 2003), which deals with compliance and enforcement and provides for environmental management inspectors (EMIs).
- **The National Environmental Management Amendment Act**, 2004 (Act No. 8 of 2004), which streamlines the process of regulating and administering the impact assessment process. Chapter 5 of the Act lays down procedures with which the Minister or MEC, as the case may be, must comply before listing or delisting an activity.
- **The National Environmental Management: Protected Areas Amendment Act**, 2009 (Act No. 15 of 2009), which provides for the assignment of national parks, special parks and heritage sites to South African National Parks; makes provision for flight corridors and permission of the management authority to fly over a special national park, national park or heritage site; and provides for the winding up and dissolution of South African National Parks.
- **The National Environment Laws Amendment Act**, 2008 (Act No. 44 of 2008), which amends the National Environmental Management Act, 1998, so as to clarify an uncertainty in the Act; authorises the Minister of Water Affairs and Forestry to designate persons as environmental management inspectors; provides for environmental management inspectors to be regarded as peace officers as contemplated in the Criminal Procedure Act, 1977; and amends the National Environmental Management: Air Quality Act, 2004, so as to substitute Schedule 1 to that Act.
- **The National Environmental Management Amendment Act**, 2008 (Act No. 62 of 2008), which empowers the Minister of Minerals and Energy to implement environmental matters in terms of the National Environmental Management Act, 1998, in so far as it relates to prospecting, mining, exploration or related activities; aligns environmental requirements in the Mineral and Petroleum Resources Development Act (MPRDA), Act No. 28 of 2002, with NEMA (1998), by providing

for the use of one environmental system and by providing for environmental management programmes; and further regulates environmental authorisations;

- **The National Environment Laws Amendment Act, 2009** (Act No. 14 of 2009), which amends the Atmospheric Pollution =Prevention Act, 1965, so as to adjust the penalties provided for in the said Act, the Environment Conservation Act, 1989, so as to adjust the penalties provided for in the said Act, the National Environmental Management: Air Quality Act, 2004, so as to provide for a processing fee to review a licence, and to include directors or senior managers in a juristic person for the criteria for a fit and proper person.

**The World Heritage Convention Act, 1999** (Act No. 49 of 1999), which provides for the cultural and environmental protection and sustainable development of, and related activities, in a world heritage site.

- **The National Environmental Management: Biodiversity Act, 2004** (Act No. 10 of 2004), which significantly reforms South Africa's laws regulating biodiversity. It sets out the mechanisms for managing and conserving South Africa's biodiversity and its components; protecting species and ecosystems that warrant national protection; the sustainable use of indigenous biological resources; the fair and equitable sharing of benefits arising from bioprospecting, including indigenous biological resources; and the establishment of the South African National Biodiversity Institute.

- **National Environmental Management: Protected Areas Act, 2003** (Act No. 57 of 2003), which provides for the protection and conservation of ecologically viable areas. It further provides for the establishment of a national register of protected areas and the proclamation and management of these areas.

- **The National Environmental Management: Protected Areas Amendment Act, 2004** (Act No. 31 of 2004), which provides for a national system of protected areas in South Africa as part of a strategy to manage and conserve the country's biodiversity. A significant part of this Act is that the state is appointed as the trustee of protected areas in the country.

**The National Environmental Management: Air Quality Act, 2004** (Act No. 39 of 2004), which reforms the law regulating air quality in order to protect the environment by providing reasonable measures for the prevention of pollution and ecological degradation and for securing ecologically sustainable development; and provides for national norms and standards regulating air quality monitoring.

**The National Environmental Management: Integrated Coastal Management Act, 2008** (Act No. 24 of 2008), which establishes a system of integrated coastal and estuarine management in the Republic; ensures that development and the use of natural resources within the coastal zone is socially and economically justifiable and ecologically sustainable; determines the responsibilities of organs of state in relation to coastal areas; controls dumping at sea and pollution in the coastal zone; and gives effect to South Africa's international obligations in relation to coastal matters.

**The National Environmental Management: Waste Act, 2008** (Act No. 59 of 2008), which reforms the law regulating waste management in order to protect health and the environment by providing reasonable measures for the prevention of pollution; provides for national norms and standards for regulating the management of waste by all spheres of government; and provides for the licensing and control of waste management activities.

**South African Weather Service Act, 2001** (Act No. 8 of 2001), which established the South African Weather Service; determined its objects, functions and method of work, and the manner in which it is to be managed; and governs and regulates its staff matters and financial affairs.

**The Minerals and Petroleum Resources Development Act, 2002** (Act No. 28 of 2002), which, inter alia, aims to ensure ecologically sustainable development of mineral and petroleum resources and to promote economic and social development.

**National Water Act, 1998** (Act No. 36 of 1998), which provides that the National Government is the public trustee of the National Government's water resources and, acting through the Minister of Water and Environmental Affairs, has the power to regulate the use, flow and control of all water in the Republic.

**Water Services Act, 1997** (Act No. 108 of 1997). Section 156, read in conjunction with Part B of Schedule 4 of the Constitution of the Republic of South Africa (Act No. 108 of 1996) vests the executive authority and responsibility to support and strengthen the capacity of municipalities to manage their own affairs, to exercise their powers and to perform their functions.

**National Forests Act, 1998** (Act No. 84 of 1998), which promotes the sustainable management and development of forests for the benefit of all; creates the conditions necessary to restructure forestry in state forests; provides special measures for the protection of certain forests and trees; promotes the sustainable use of forests for environmental, economic, educational, recreational, cultural, health and spiritual purposes; promotes community forestry; and promotes

greater participation in all aspects of forestry and the forest products industry by persons disadvantaged by unfair discrimination.

**National Veld and Forest Fire Act, 1998 (Act No. 101 of 1998).** The purpose of the National Veld and Forest Fire Act, 1998 (NVFFA), is to prevent and combat veld, forest and mountain fires throughout the Republic. The Act provides for a variety of institutions, methods and practices for achieving the purpose, i.e. the establishment and registration of fire protection associations to deal with all aspects of veldfires prevention and fire fighting; the development and maintenance of a national fire danger rating system to assist in the prevention of veldfires; the preparation and maintenance of firebreaks by landowners; and fire fighting.

## **REGULATIONS**

### **ENVIRONMENT CONSERVATION ACT, 1989 (ACT NO. 73 OF 1989)**

Waste Tyre Regulations, 2008, which regulate the management of waste tyres by providing for the regulatory mechanisms.

### **NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998 (ACT NO.107 OF 1998)**

- Environment Impact Assessment (EIA) Regulations, which regulate procedures and criteria, as contemplated in Chapter 5 of NEMA, for the submission, processing, consideration and decision of applications for environmental authorisations of activities and for matters pertaining thereto. The Minister has just published draft revised EIA Regulations, under section 24(5) of the NEMA, 1998, for public comment.

Regulations controlling the use of vehicles in the coastal zone: The original regulations were made in 2001 and were amended in 2004. The amended regulations centre on imposing a general duty of care on persons using 4x4 vehicles in the coastal zone, as well as a general prohibition on the use of 4x4 vehicles in the coastal zone unless it is a permissible use.

### **NATIONAL ENVIRONMENTAL MANAGEMENT: PROTECTED AREAS ACT, 2003 (ACT NO. 57 OF 2003)**

- Regulations for the proper administration of the Knysna Protected Environment.

## **NATIONAL ENVIRONMENTAL MANAGEMENT: BIODIVERSITY ACT, 2004 (ACT NO. 10 OF 2004)**

Threatened or Protected Species (TOPS) Regulations, which further regulate the permit system set out in Chapter 7 of the Biodiversity Act. Previously, South Africa used to have provincial ordinances for the different provinces, and these are the first national regulations. The aim is to make TOPS the only regulations in South Africa for indigenous species. • Regulations for bioprospecting, access and benefit-sharing:

While the Biodiversity Act was promulgated in 2004, the regulations relating to Chapter 6 (Bioprospecting, Access and Benefit-sharing) and Chapter 7 (Permit System) came into force on 1 April 2008. These regulations further regulate the permit system set out in Chapter 7 of the Biodiversity Act in so far as that system applies to bioprospecting involving any indigenous biological resources; set out the contents of, and the requirements and criteria for benefit-sharing and material transfer agreements; and protect the interest of stakeholders

### **B. IDENTIFICATION OF KEY PARTNERS**

The management of the environment and protection of natural resources is a concurrent function. The monitoring and coordination of implementation of deliverables as outlined in the Delivery Agreement annexes is coordinated through the Intergovernmental Relations intergovernmental mechanism (CLUSTER) extended to include key departments, public entities and other partners that contribute to the achievement of outputs. The executive Implementation Forum (EXCO COMMITTEE) and technical Implementation Forum (PMC) are therefore used.

The working groups are aligned per output to coordinate the output activities and report to the technical Implementation Forum that makes recommendations to the executive Implementation Forum (EXCO). The key partners that contribute to the achievement of outcome 10 are identified per output. These partners are drawn from national and provincial departments, local government and public entities. The following tables reflect partners contributing to each of the outputs, and it should be noted that while care was taken to ensure that all key implementing partners are reflected, the list should not be viewed as exhaustive.

Key partners that are crucial for implementing outcome 10 at national level are: Department of Water Affairs (DWA), Department of Energy (DOE), Department of Mineral Resources (DMR), Department of Agriculture, Forestry and Fisheries (DAFF). Department of Trade and Industries (DTI). There is a need for an institutional arrangement/framework with key partners to be established in order to enhance integrated implementation, monitoring, evaluation and reporting.

## **OUTPUT 1: ENHANCED QUALITY AND QUANTITY OF WATER**



## RESOURCES

**Coordinating departments:** Water Affairs (DWA); Economic Development, Environment & Tourism (DEDET); Agriculture, Rural Development & Land Reform (DARDLA); Cooperative Governance & Traditional Affairs (COGTA) and Human Settlements

**Core departments:** Mineral Resources (DMR); Energy; Public Works, Roads & Transport; Treasury

**Public entities:** SALGA; and Municipalities

## OUTPUT 2: REDUCED GREENHOUSE GAS EMISSIONS, CLIMATE CHANGE IMPACTS AND IMPROVED AIR/ATMOSPHERIC QUALITY

**Coordinating departments:** Economic Development, Environment & Tourism and Treasury

**Core Departments:** Water Affairs (DWA); Agriculture, Rural Development & Land Administration (DARDLA); Human Settlements (Health impacts); Cooperative Governance & Traditional Affairs (COGTA) (Coordination with local government on air/atmospheric quality); Mineral Resources (DMR); Energy

**Public Entities:** SALGA;

## OUTPUT 3: SUSTAINABLE ENVIRONMENTAL MANAGEMENT

**Coordinating Departments:** Department of Economic Development, Environment & Tourism (DEDET); Agriculture, Rural Development & Land Administration (DARDLA); Cooperative Governance and Traditional Affairs (COGTA); Public Works, Roads & Transport

**Core Departments:** Human Settlements; Treasury; Health; Social Development; Culture, Sport & Recreation (Environmental awareness); Education (Environmental Education);

**Public Entities:** MTPA

## OUTPUT 4: PROTECTED BIODIVERSITY

**Coordinating Departments:** Economic Development, Environment & Tourism (DEDET) and Treasury

**Core Departments:** Cooperative Governance and Traditional Affairs (COGTA);

**Public Entities:** MTPA

### C. LINKING OUTPUTS TO OUTCOME 10

<b>Enhanced quality • and quantity of • water resources •</b>	<ul style="list-style-type: none"><li>• Water demand</li><li>• Water resource protection</li><li>• Regulation of water quality</li></ul>
<b>Reduced greenhouse gas emissions, climate • change and improved air/atmospheric quality •</b>	<ul style="list-style-type: none"><li>• Reduction of emission of CO2</li><li>• Reduction of atmospheric pollutants</li><li>• Renewable energy deployment</li><li>• Adapting to the impacts of climate change</li><li>• Energy efficiency</li></ul>
<b>Sustainable • environmental management</b>	<ul style="list-style-type: none"><li>• Restoration and rehabilitation of management degraded ecosystems</li><li>• Deforestation and forest management</li><li>• Less and better managed waste</li><li>• Management of environmental impacts from mining and related activities</li><li>• Sustainable land-use management</li></ul>
<b>Protected biodiversity</b>	<ul style="list-style-type: none"><li>• Expansion of the conservation estate</li><li>• Reduced climate change impacts on biodiversity</li></ul>

	<ul style="list-style-type: none"><li>• Protected ecosystem and species</li><li>• Valuing the ecosystem services</li><li>• Protection of agricultural land</li></ul>
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**A NUMBER OF OUTCOME 10 SIGNATORIES WILL ALSO BE CONTRIBUTING TO THE REALISATION OF THE FOLLOWING OUTCOMES:**

**Outcome 8:** Sustainable human settlements and improved quality of household life.

**Outcome 9:** Responsive, accountable, effective and efficient local government system.

**Outcome 4:** Decent employment through inclusive economic growth.

**Outcome 11:** Create a better South Africa and contribute to a better and safer Africa and world.

**Outcome 7:** Vibrant, equitable and sustainable rural communities with food security for all.

**D. ACTIONS NEEDED TO ACHIEVE EACH OUTPUT**

**OUTPUT 1: ENHANCED QUALITY AND QUANTITY OF WATER RESOURCES**

**Problem Statement**

South Africa is a water stressed country. In Mpumalanga, the major industrial activities such as power generation, metal processing, forestry, pulp and paper-making as well as agriculture are all water intensive. Effluent from industrial activities and municipal sewage works is largely not compliant to water release standards and actually pollute water-courses. Due to chemical release during mining activities, over-reliance on chemicals in agriculture, South Africa's limited groundwater

resources are also significantly polluted. All these add to the costs of treating the water to acceptable potable or drinking water standards.

#### **OUTPUT 1: SUB-OUTPUT 1: WATER DEMAND**

##### **What needs to be done differently?**

- Revise legislation to correct unintended consequences of devolution of responsibilities between national and provincial spheres of government

#### **OUTPUT 1: SUB-OUTPUT 2: WATER RESOURCE PROTECTION**

##### **What needs to be done differently?**

- Integrate the water sector as part of the environmental sector as a whole in line with international environmental regulation.

#### **OUTPUT 1: SUBOUTPUT 3: REGULATION OF WATER QUALITY**

##### **What needs to be done differently?**

- Revise legislative framework to integrate water quality management as part of overall environmental quality management.

#### **OUTPUT 2: REDUCED GREENHOUSE GAS EMISSIONS, CLIMATE CHANGE IMPACTS AND IMPROVED AIR/ATMOSPHERIC QUALITY**

## **Problem Statement**

- South Africa's contribution to global warming stems from the over-reliance on hydro-carbons, specifically coal, as a source of electricity and automobile fuel.
- Carbon dioxide emissions from the existing 11 power generation plants, as well as the future coal-fired power station to be built in Mpumalanga, imply that South Africa's major sources of CO<sub>2</sub> emissions are in this Province.
- Industrial, domestic and automobile emissions release significant amounts of air pollutants such as oxides of sulphur, nitrogen, carbon; particulate matter and other chemicals that result in adverse impacts to human health and well-being as well as adversely altering soil and atmospheric chemistry.

## **OUTPUT 2: SUB-OUTPUT 1: REDUCTION OF EMISSION OF CO<sub>2</sub>**

### **What need to be done differently?**

- Introduce effective regulatory instruments to allow the introduction of renewable energy generation capacity, e.g. by separating the power generation and distribution functions and take ownership of the Electricity Distribution Grid out of Eskom.
- Regulatory interventions to control or manage atmospheric emissions have to involve the Mpumalanga Provincial Government (where this is an exclusive national government mandate).

## **OUTPUT 2: SUB-OUTPUT 2: REDUCTION OF ATMOSPHERIC POLLUTANTS**

### **What needs to be done differently?**

- Implement polluter pays principle to promote responsible mining and set up mechanism and rehabilitation fund to address historical environmental degradation resulting from mining activities, e.g. acid mine drainage, underground spontaneous combustion.

## **OUTPUT 2: SUB-OUTPUT 3: EVALUATION OF THE LEGISLATIVE ENVIRONMENT**

### **What needs to be done differently?**

- Revise and extend the scope of the environmental regulatory mandate to cover mining.

## **OUTPUT 3: SUSTAINABLE ENVIRONMENTAL MANAGEMENT**

### **Problem Statement**

Due to unsustainable human practices in order to meet socio-economic needs, there is an increasing pressure on the natural resources. The major pressure areas include conflicting land-use planning and management, unsustainable generation and management of waste (with decreasing availability of waste disposal sites) and over-exploitation of natural resources (resulting in deforestation, soil erosion, ecosystem destruction and release of CO<sub>2</sub> to the atmosphere).

## **OUTPUT 3: SUB-OUTPUT 1: RESTORATION AND REHABILITATION OF DEGRADED ECOSYSTEMS**

### **What needs to be done differently?**

- Provision of an enabling policy framework for environmental rehabilitation of contaminated land and other natural resources.

### **OUTPUT 3: SUBOUTPUT 2: DEFORESTATION AND FOREST MANAGEMENT**

#### **What needs to be done differently?**

- Revision of the current regulatory framework to ensure integrated environmental regulation (a holistic approach that considers environmental impacts of socio-economic activities across all three environmental media (air, water and land))

### **OUTPUT 3: SUB-OUTPUT 3: LESS AND BETTER MANAGED WASTE**

#### **What needs to be done differently?**

- Provision of an effective funding model for waste management infrastructure development
- Provision and adoption of an effective and standardized model for integrated waste management
- Address skill shortages for waste management, especially at local government

### **OUTPUT 4: PROTECTED BIODIVERSITY**

#### **Problem Statement:**

Mpumalanga comprises of major biodiversity areas. These biodiversity areas not only contribute to economic development through tourism and trade, but are also essential for the sustenance of life as a global ecosystem. As a result of unsustainable human economic and social practices, many of these biodiversity areas are threatened.

#### **OUTPUT 4: SUB-OUTPUT 1: EXPANSION OF THE CONSERVATION ESTATE**

##### **What needs to be done differently?**

There needs to be a conscious effort to regulate socio-economic activities in the Province such that there is a balance between socio-economic growth and biodiversity enhancement.

#### **OUTPUT 4: SUB-OUTPUT 2: REDUCED CLIMATE CHANGE IMPACTS ON BIODIVERSITY**

##### **What needs to be done differently?**

- Develop and implement the climate change strategy taking into consideration the existing biodiversity management plans/programmes for climate change adaptation.

#### **OUTPUT 4: SUBOUTPUT 3: PROTECTED ECOSYSTEMS AND SPECIES**

##### **What needs to be done differently?**

- Increase public awareness on protection of natural resources.
- Facilitate the development of the biodiversity sector research strategy to better understand and monitor status and trends of ecosystems and species requiring protection.

### **E. INDICATORS, BASELINES AND TARGETS FOR OUTCOMES**

**Appendix A provides the details on the indicators, baselines and targets for Outcome 10 outputs and sub-outputs**



## F. SYNOPSIS OF KEY ACTIVITIES

Appendix B provides the details on each Outcome 10 Partner's contribution to outputs and sub-outputs (i.e. roles and responsibilities)

## G. RISKS, CONSTRAINTS AND MITIGATION STRATEGIES

Appendix C provides more detail on risks, constraints and mitigation strategies for each output.

Generally classified as Institutional, Systemic and Resource constraints:

See Appendix C

- Institutional constraints: Organisational structure: Existing structure does not cater for new legislative mandates. Environmental Sector specific organisational structure has been approved by MINMEC but not implemented.
- Financial resource constraints: Capital and Operational Expenditure Allocations insufficient to fund new and existing legal mandates.
- Human resource constraints: not all posts are funded and filled
- Retention of environmental skilled expertise
- **Defined curriculum : No standard and focused academic curriculum to train specific environmental fields**
- Fragmentation of Environmental legislation results in uncoordinated implementation e.g. energy (hence CO<sub>2</sub> emission reduction), water and mining, etc.

**Suggested Measures to Overcome Identified Constraints:**

- Institutional constraints: Adopt and implement Environmental Sector Budget and Programme Structure

- Financial resource constraints: Revise budget allocations (departmentally, provincially and nationally) according to Outcome priority areas
- Human resource constraints: Fill vacant posts
- 
- **Curriculum Development:** Engage education sector (Higher Education) to standardise and develop environmental science curriculum to produce critical skills
- Fragmentation of Environmental legislation
  - Short Term: co-operation between MPG and national departments that have exclusive national mandates, (i.e. energy, water and mining, etc.)
  - Medium to long-term: Revise legislation to correct unintended consequences of devolution of responsibilities between national and provincial spheres of government

## **H. GOVERNANCE AND REPORTING ARRANGEMENTS**

- There is a need for an institutional arrangement/framework with key partners to be established in order to enhance integrated implementation, monitoring, evaluation and reporting.
- Provide Linkages to Provincial Governance and Reporting Arrangements (E.G. EIE CLUSTER)
- Link Provincial Governance & Reporting Arrangements to set National Governance & Reporting Framework (MINMEC/ MINTECH)

## **I. SIGNATORIES AND IMPLEMENTING PARTNERS**

**Appendices D and E provide detailed information and associated roles and responsibilities of Implementing Partners**

**INDICATORS, BASELINES AND TARGETS FOR OUTCOME**

**Outcome 10: Environmental assets and natural resources that are well protected and continually enhanced**

<b>Output</b>	<b>Indicator/ Measure</b>	<b>Baseline</b>	<b>5-yr Targets</b>	<b>2010/11 Targets</b>	<b>MTEF Budget</b>	<b>2010/ 11 Budget</b>	<b>Key Partners</b>	<b>Contribution from key partners</b>
Enhanced quality and quantity of water resources	Water demand						DWA, Municipalities and DEA	
	Water resource protection						DWA, Municipalities and DEA	
	Regulation of water quality						DWA, Municipalities and DEA	
Reduced Greenhouse Gas Emissions, Climate Change Impacts and improved air/atmospheric quality	Improved Air Quality	Draft Air Quality management plan developed for Highveld Priority Area	Provincial Air Quality management plan developed and Implemented	Draft Provincial Air Quality management plan developed	N	N	Department of Energy, Supported by DEA; DTI; Department of Public Enterprises; National COGTA; District and	Department of Energy ( Energy Policy formulation); DEA ( Environmental Regulatory Oversight); DTI (Trade and Industry Policy Oversight);

**INDICATORS, BASELINES AND TARGETS FOR OUTCOME**

**Outcome 10: Environmental assets and natural resources that are well protected and continually enhanced**

Output	Indicator/ Measure	Baseline	5-yr Targets	2010/11 Targets	MTEF Budget	2010/ 11 Budget	Key Partners	Contribution from key partners
							Local Municipalities	COGTA (MIG Funding)
	Climate Change Response Strategy Developed	Draft Discussion document on Climate Change Response Strategy compiled	Climate change mitigation strategy	Climate Change Response Strategy developed	N	N	Industries, All Sector departments and District and Local Municipalities	Department of Energy ( Energy Policy formulation); DEA ( Environmental Regulatory Oversight);

**INDICATORS, BASELINES AND TARGETS FOR OUTCOME**

**Outcome 10: Environmental assets and natural resources that are well protected and continually enhanced**

<b>Output</b>	<b>Indicator/ Measure</b>	<b>Baseline</b>	<b>5-yr Targets</b>	<b>2010/11 Targets</b>	<b>MTEF Budget</b>	<b>2010/ 11 Budget</b>	<b>Key Partners</b>	<b>Contribution from key partners</b>
	Number of schools registered for Climate Change Awareness Programme	170 Schools participated in Climate Change Awareness Programme	810 Schools and community groups participated	90 Schools	N	N	Private Sector, SANBI, All Sector departments and Municipalities	DTI (Trade and Industry Policy Oversight); COGTA (MIG Funding) DAFF; DARDLA; MTPA; COGTA and All Municipalities
	Number of trees planted	58 527 trees planted	350 000 trees planted	30 000 trees	N	N		
Sustainable Environmental Management	Number of permitted and compliant landfill sites	1 permitted and compliant municipal landfill site	18 permitted and compliant municipal landfill sites by 2014	5 permitted and compliant municipal landfill sites	N	N	DWA; COGTA and Municipalities	DWA (concurrence on Landfill Waste Licenses); Municipalities and Industry (Landfill Site operators)
	Number of Municipal Environmental Management Frameworks	2 Municipal Environmental Management Frameworks	8 Municipal EMF's developed for environmental	2 Municipal EMF's developed for environmental sensitive areas	N	N	DAFF; DARDLA; MTPA; COGTA and Municipalities	Partnerships in Spatial Development Planning

**INDICATORS, BASELINES AND TARGETS FOR OUTCOME**

**Outcome 10: Environmental assets and natural resources that are well protected and continually enhanced**

<b>Output</b>	<b>Indicator/ Measure</b>	<b>Baseline</b>	<b>5-yr Targets</b>	<b>2010/11 Targets</b>	<b>MTEF Budget</b>	<b>2010/ 11 Budget</b>	<b>Key Partners</b>	<b>Contribution from key partners</b>
	Frameworks developed	(EMF's) developed	sensitive areas					
Protected Biodiversity	MBCP Revised Protected Areas Act (NEMPAA and Biodiversity Act (NEMBA) will be dealt by MTPA	Mpumalanga Biodiversity Conservation Plan (MBCP)	MBCP Reviewed and Implemented through MTPA		N	N	DAFF; DARDLA; MTPA; COGTA District and Local Municipalities	Partnerships in Spatial Development Planning

## APPENDIX A: RESULTS CHAIN

<b>Results Chain</b>	<b>Indicator</b>	<b>Baseline</b>	<b>Target</b>	<b>Monitoring Mechanisms (means of verification, sources of information)</b>	<b>Assumptions/ Risks</b>	<b>Responsibility</b>	<b>Key Activities</b>
Enhanced quality and quantity of water resources	Water demand						
	Water resource protection						
	Regulation of water quality						
Reduced Greenhouse Gas Emissions,	Improved Air Quality	Draft Air Quality management plan	Provincial Air Quality management			Department of Energy ( Energy Policy formulation); DEA (	Provincial Air Quality management plan



Climate Change Impacts and improved air/atmospheric quality		developed for Highveld Priority Area	plan developed and Implemented			Environmental Regulatory Oversight); DTI (Trade and Industry Policy Oversight); COGTA (MIG Funding) DAFF; DARDLA; MTPA; COGTA	developed and Implemented
	Climate Change Response Strategy Developed	Draft Discussion document on Climate Change Response Strategy compiled	Climate change mitigation strategy			Department of Energy ( Energy Policy formulation); DEA ( Environmental Regulatory Oversight); DTI (Trade and Industry Policy Oversight); COGTA (MIG Funding) DAFF; DARDLA; MTPA; COGTA and All Municipalities	Climate change mitigation strategy

	Number of schools registered for Climate Change Awareness Programme	170 Schools participated in Climate Change Awareness Programme	810 Schools and community groups participated			Private Sector, SANBI, All Sector departments and Municipalities	810 Schools and community groups participated
		58 527 trees planted	350 000 trees planted			Private Sector, SANBI, All Sector departments and Municipalities	350 000 trees planted
Sustainable Environmental Management	Number of permitted and compliant landfill sites	1 permitted and compliant municipal landfill site	18 permitted and compliant municipal landfill sites by 2014			DWA (concurrence on Landfill Waste Licenses); Municipalities and Industry (Landfill Site operators)	18 permitted and compliant municipal landfill sites by 2014
	Number of Municipal	2 Municipal Environmental	8 Municipal EMF's developed for			DAFF; DARDLA; MTPA; COGTA and	8 Municipal EMF's developed for environmental

	Environmental Management Frameworks developed	Management Frameworks (EMF's) developed	environmental sensitive areas			Municipalities (Partnerships in Spatial Development Planning)	sensitive areas
Protected Biodiversity	MBCP Revised Protected Areas Act (NEMPAA and Biodiversity Act (NEMBA) will be dealt by MTPA	Mpumalanga Biodiversity Conservation Plan (MBCP)	MBCP Reviewed and Implemented through MTPA			DAFF; DARDLA; MTPA; COGTA and Municipalities (Partnerships in Spatial Development Planning)	MBCP Reviewed and Implemented through MTPA

## APPENDIX B: HIGH-LEVEL IMPLEMENTATION PLAN

### PROVINCIAL COMMITMENTS TO NATIONAL SERVICE DELIVERY AGREEMENT

#### HIGH-LEVEL PROVINCIAL DELIVERABLES

Target Indicator	Activities	MILESTONES/ DELIVERABLES				TIME (COMPLETED BY)	HUMAN RESOURCES	FINANCIAL RESOURCES	ROLES AND RESPONSIBILITIES
		YEAR 1	YEAR 2	YEAR 3	YEAR 4				
Number of wetlands rehabilitated per year (100 per year)	Implementation of through the rehabilitation of priority wetlands, development of rehabilitation plans	75 wetlands rehabilitated	85 wetlands rehabilitated	100 wetlands rehabilitated	120 wetlands rehabilitated	March 2014	Rehabilitation teams in provinces, scientists and project managers	Estimated R70 million p.a.	SANBI, DEA and local municipalities
Number of wetlands under formal protection (4 by 2014)	Identify wetlands of national	Criteria for listing of wetlands developed	Assessment of priority wetlands	Develop and implement management plans	Develop and implement management plans	January 2014	Scientists, planners, conservation manager	R500 000 p.a.	Conservation Authorities — implement plans
	Management plans for wetlands	Management	Management	Assessment of	Develop and	January 2014		R400 000/plan	DEA, provinces

	of international importance developed	plans for 5 RAMSAR sites developed	nt plans for 5 RAMSAR sites developed	priority wetlands against criteria developed	implement 3 management plans				
	Construction of gabions to control, water flow and soil erosion	2 Wetlands rehabilitated 2 dongas prevented from expanding	2 wetlands rehabilitated 2 dongas prevented from expanding	1 wetland rehabilitated	2 wetlands rehabilitated	9 January 2013	No additional human resources required	Additional financial resources required	DEA to appoint project implementers and monitor their performance
16 major rivers with healthy ecosystem 2014	Eco-classification of water	1 major river system meeting resource quality objectives	1 major river system meeting resource quality objectives	1 major river system meeting resource quality objectives	1 major river system meeting resource quality objectives	3 January 2014			DWA, DEA
<b>OUTPUT 2: REDUCED GREENHOUSE GAS EMISSIONS, CLIMATE CHANGE AND IMPROVED AIR/ATMOSPHERIC QUALITY</b>									
<b>Sub output 2.1: Reduced CO<sub>2</sub> emission</b>									
Reduction of pollutants	The South African Air Quality Information System (SAAQIS)	20% of government-owned	60% of government-owned	80% of government-owned	(MPDEDET): Environmental reporting structure	March 2014	As per proposed structure	Funding of proposed monitoring stations	DEA, MPDEDET

	monitoring stations reporting monitoring stations reporting				to SAAQIS by 2014				
	The efficient and effective identification, development and implementation of Air Quality Management Plans for National Priority Areas (Highveld).	1 Highveld Priority AQMPs developed	Highveld Priority implemented	1 x provincial AQMP developed	1x Provincial AQMP Implemented	January 2014	As per proposed structure	Funding of proposed monitoring stations	DEA, MPDEDET Implemented
<b>Suboutput 2.4: Identified climate change and adaptation framework</b>									
Climate change impacts identified and adaptation frameworks integrated into; 12 national sectoral plans by 2012	Climate Change adaptation sectors plans in place by 2012;  Climate change adaptation plans rolled out to municipal sphere of government	Draft discussion document on Climate Change Response strategy	Climate change mitigation strategy	Climate Change Response strategy developed	Climate change response strategy Implemented	March 2014	As per proposed structure	Funding of proposed monitoring stations	DEA, MPDEDET Implemented
<b>Suboutput 3.3: Less waste that is better managed</b>									
80% by 2014 of permitted landfill sites	Capacity building for municipalities	20% by 2011 of permitted land fill sites	40% by 2012 of permitted land fill sites	60% by 2013 of permitted land fill sites	80% by 2014 of permitted land fill	March 2014	As per proposed structure	Funding of proposed DEA, MPDEDET monitoring stations reporting	(MPDEDET) Environmental structure to SAAQIS by 2014

					sites				
25% by 2012 municipal waste diverted from landfills for recycling	Targets for waste minimization and standard set by 2012  Enhance energy potential of waste by harnessing gasses from landfill sites for energy generation	5%	5%	5%	5%	March 2014	As per proposed structure	Funding of proposed (MPDEDET: Environmental structure Services)	COGTA, Local government

**Suboutput 3.5: Sustainable land-use management**

Land use management is guided by EIAs, EMFs and SDF	Strengthen sustainability principles in land use planning and growth as well as development plans at levels	300 EIAs evaluated and Authorized	600 EIAs evaluated and Authorized	900 EIAs evaluated and Authorized	1200 EIAs evaluated and Authorized	March 2014	As per proposed structure(MDEDET: Environmental Services)	Funding of proposed structure	DARDLA and relevant Provinces
	Environmental Management Framework/Strategic Environmental Assessment and other Strategic Environmental Planning	2 EMFs developed	2 EMFs developed	2 EMFs developed	2 EMFs developed	March 2014	As per proposed structure(MDEDET: Environmental Services)	Funding of proposed structure	DEA, DARDLA and Municipalities

**Suboutput 4.1: Percentage land mass under conservation**

9% Land-mass under conservation per province by 2014	Declaration of priority areas for expansion of protected areas network (Provincial) — including biodiversity stewardship	10 000 ha	10 000 ha	10 000 ha	10 000 ha	March 2014	Scientists, scenario Provincial environmental, acquire and contract managers, to determine budgetary declare GIS experts (Human resources allocations (partly funded). current within	Additional finances required comprise 2 posts and require over years 1 to 4: 6 posts over 4 years (therefore R40 000 000 (for land only 33% of Human Resources purchase 20% of 4-year resources met)) target and biodiversity stewardship 80% of 4-year target)	Provincial environmental departments and agencies and agencies to identify priority areas for expansion
5 wetlands per year of national and international importance with management plans in place	Identify wetlands of national importance and develop management plans	Criteria for listing of wetlands developed	Assessment of priority wetlands developed against criteria developed	Assessment of priority wetlands developed against criteria developed	Develop and Implement management plans	March 2014	Scientists; planners; conservation managers	R500 000 per annum	DEA, SANBI, Working for Wetlands
	Management plans for wetlands of international importance developed	Management plans for 5 international importance developed RAMSAR sites developed	Management plans for 5 international importance developed RAMSAR sites developed	international importance developed RAMSAR sites developed	Management plans for 5 international importance developed RAMSAR sites developed	March 2014	Wetland specialist	R400 000 Per Annum	DEA, SANBI, Working for Wetlands



#### Suboutput 4.4 Valuing the ecosystem services

Environmental costs related to the provision of resource-based services (a) Number of tools developed for the economic valuing of biodiversity and ecosystem services	Quantify the economic value of biodiversity and ecosystem services		Initiate process to develop system	Develop and consult	Consultation and finalization of system	March 2014	Resource economist, ecologists; scientists;	R500 000 per annum	DEA, SANBI, Conservation Authorities and National Treasury economists
	Promote incentives for conservation and improved ecosystem protection	Initiate process	Finalise making the case for value of Biodiversity	Rollout	Rollout	March 2014	Resource economist, ecologists; scientists;	R250 000 per annum	DEA, SANBI, Conservation Authorities and National Treasury Economists

#### Suboutput 1: Environmental legislation compliance and enforcement

800 environmental authorisations monitored for compliance	Conduct reactive inspection and institute enforcement actions against non compliance	10 Criminal investigations conducted	10 Criminal investigations conducted	10 Criminal investigations conducted	10 Criminal investigations conducted	March 2014	As per proposed structure(MDEDET: Environmental Services)	Funding of proposed structure	DEA and Municipalities
	Undertaken enforcement against transgressions	40 notices and directives	40 notices and directives	40 notices and directives	40 notices and directives		As per proposed structure(MDEDET: Environmental Services)	Funding of proposed structure	DEA and Municipalities

16 Environmental Management Inspectors rolled out to municipalities.	Capacity building and MOU signed; between MEC and the mayors	Initiate development of MOU and training of Environmental Management Inspectors	Finalise MOU and conduct training of Environmental Management Inspectors and purchase Equipments	Capacity building sessions and joint Project conducted	Capacity building sessions and joint Project conducted	March 2014	As per proposed structure(MDEDET: Environmental Services)	Funding of proposed structure	DEA and Municipalities
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**Suboutput 2: Environmental sustainability**

Scaling up environmental education, awareness and voluntary activism	Climate Change Awareness Programme, Tree planting programme, Greenest Municipality , Pre-school water programme, Environmental Commemorative day programme, Adopt a School yard Programme, Adopt a spot Programme	7 Environmental awareness and education programmes and projects annually	7 Environmental awareness and education programmes and projects annually	7 Environmental awareness and education programmes and projects annually	7 Environmental awareness and education programmes and projects annually	March 2014	As per proposed structure(MDEDET: Environmental Services)	Funding of proposed structure	MPDEDET, DEA
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	Implement and review annual provincial targets	Implement waste, water and greening targets annually: Decade of Education for Sustainable Development (DESD) provincial Forum	Implement waste, water and greening targets annually: Decade of Education for Sustainable Development (DESD) provincial Forum	Implement waste, water and greening targets annually: Decade of Education for Sustainable Development (DESD) provincial Forum	Implement waste, water and greening targets annually: Decade of Education for Sustainable Development (DESD) provincial Forum	March 2014	As per proposed structure(MDEDET: Environmental Services)	Funding of proposed structure	MPDEDET, DEA
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### APPENDIX C: RISKS, CONSTRAINTS AND MITIGATION STRATEGIES

OUTCOME	OUTPUT	RISK AREA/ CONSTRAINT	MITIGATION MEASURE
Environmental Assets	Reduced greenhouse gas	Institutional constraints:	Institutional constraints: Adopt and

and natural resources that are valued, protected and continually enhanced	emissions, climate •	Organisational structure: Existing structure does not cater for new legislative mandates. Environmental Sector specific organisational structure has been approved by MINMEC but not implemented.	implement Environmental Sector Budget and Programme Structure
	change and improved air/atmospheric quality •		
	Sustainable Environmental Management		
	Protected Biodiversity		
	Reduced greenhouse gas emissions, climate •change and improved air/atmospheric quality •	Financial resource constraints: Capital and Operational Expenditure Allocations insufficient to fund new and existing legal mandates.	Financial resource constraints: Revise budget allocations (departmentally, provincially and nationally) according to Outcome priority areas
	Sustainable Environmental Management		
	Protected Biodiversity		
	Reduced greenhouse gas emissions, climate •change and improved air/atmospheric quality	Human resource constraints: not all posts are funded and filled.	Human resource constraints: Fill vacant posts
	Sustainable Environmental Management		

	Protected Biodiversity		
	Reduced greenhouse gas emissions, climate •change and improved air/atmospheric quality	Retention of environmental skilled expertise	Develop a retention strategy
	Sustainable Environmental Management		
	Protected Biodiversity		
Environmental Assets and natural resources that are valued, protected and continually enhanced	Reduced greenhouse gas emissions, climate •change and improved air/atmospheric quality	Defined curriculum : No standard and focused academic curriculum to train specific environmental fields etc.	<b>Curriculum Development:</b> Engage education sector (Higher Education) to standardise and develop environmental science curriculum to produce critical skills
	Sustainable Environmental Management		
	Protected Biodiversity		
	Reduced greenhouse gas emissions, climate •change and improved air/atmospheric quality	Fragmentation of Environmental legislation results in uncoordinated implementation e.g. energy (hence CO <sub>2</sub> emission reduction), water and mining	Fragmentation of Environmental legislation  – Short Term: co-operation between MPG and national departments that have
	Sustainable Environmental Management		

	Protected Biodiversity		<p>exclusive national mandates, (i.e. energy, water and mining, etc.)</p> <ul style="list-style-type: none"> <li>- Medium to long-term: Revise legislation to correct unintended consequences of devolution of responsibilities between national and provincial spheres of government.</li> </ul>
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**APPENDIX D: SIGNATORIES AND IMPLEMENTING PARTNERS**

<b>MINISTER/ MEC</b>	<b>MUNICIPAL EXECUTIVE AUTHORITY</b>	<b>BUSINESS AND OTHER SOCIAL PARTNERS</b>
<b>MINISTER/MEC</b>	<b>EXECUTIVE MAYORS(DISTRICT AND LOCAL)</b>	Industries and mining houses ( e.g ESKOM, SASOL, BHP BILLITTON, EXXARRO, ANGLO COAL, FERRO METALS, SAPPI, HIGHVELD STEEL) NGOs and CBOs
<b>PREMIER/MEC</b>		







LINKAGES BETWEEN OUTCOMES 4 AND 10 (CROSS-CUTTING OUTPUTS/ DELIVERABLES)

Target Indicator	Activities	YEAR 1	YEAR 2	YEAR 3	YEAR 4	TIME (COMPLETED BY)	HUMAN RESOURCES	FINANCIAL RESOURCES	RESOURCES AND RESPONSIBILITES