DRAFT

OUTCOME 10 MTSF 2014-2019

OUTCOME 10: PROTECT AND ENHANCE OUR ENVIRONMENTAL ASSETS AND NATURAL RESOURCES

1. National Development Plan (NDP) 2030 Vision and Trajectory

The NDP 2030 vision is that by 2030, South Africa's transition to an environmentally sustainable, climate-change resilient, low-carbon economy and just society will be well under way. The NDP 2030 envisages a phased trajectory over the three successive MTSF periods.

The first planning, piloting and investing phase (2014-2019) focuses on the creation of a framework for implementing the transition to an environmentally sustainable, low-carbon economy. This phase will include unblocking regulatory constraints, data collection and establishment of baseline information, and indicators testing some of the concepts and ideas to determine if these can be scaled up.

The second phase (2019-2024) focuses on the implementation of sustainable development programmes and targeting a peaking of greenhouse gas emissions. Socioeconomic development is beginning to make significant inroads into reducing poverty and unemployment. The third phase (2024-2029) involves the final steps in the transition and the realisation of the vision through poverty and unemployment having been reduced to socially sustainable levels and emissions reaching a plateau by 2030.

The desired trajectory to 2030 is one which results in thriving rural communities providing an economic and social base for a significant number of people. Urban development is more compact and energy efficient. Growing public awareness of the consequences of climate change and unconstrained consumption of our natural resources leads to a refocusing of political priorities towards the protection and rehabilitation of the region's natural assets.

2. Constraints and Strategic Approach

In order to realise the NDP 2030 Vision for Environmental Sustainability and Resilience there are a number of immediate constraints that must be addressed. South Africa faces the challenge of deteriorating environmental quality due to pollution and natural resource degradation, destruction and/or depletion. If the current challenges are not effectively addressed they will exacerbate the rate of environmental degradation and have the potential to undo

or undermine many of the positive advances made in meeting South Africa's own development goals and the Millennium Development Goals (MDGs) as well as the 2030 vision.

The strategic approaches to addressing the challenges are described below.

Inadequately informed decision-making and governance

Information management systems for environmental sustainability in particular are still inadequate. Although South Africa's environmental governance regime is considered to be world class, capacity constraints at different levels and especially in the areas of compliance monitoring and enforcement underpin many of the problems experienced. Inadequately informed decision-making will be addressed through harnessing research and information management capacity to identify, develop and maintain datasets to generate policy-relevant statistics, indicators and indices in collaboration with other key contributors outside the sector.

Natural resource degradation and depletion of ecological infrastructure

Competing land uses contribute to the overexploitation of natural resources and the subsequent degradation of these natural resources. This results in an overall negative impact on ecological infrastructure that undermines the provision of key ecosystem services such as water (both quality and quantity), soil formation and pollination, all of which underpin the economy and sustainable development.

Unsustainable production processes result in land and ecosystem degradation and soil erosion which continue to undermine the productive potential of the land and compromise water and food security. The increasing rate of alien species invasion threatens biodiversity, water availability, agriculture and rural livelihoods in general. The size, representativeness and quality of the current conservation estate is not sufficient.

All these necessitate integrated and innovative approaches to natural resource management which entail a careful balance between development imperatives and sustainable utilization. An environmental management framework is required to ensure that developments that have serious environmental or social effects are offset by support improvements in related areas. There is also a need to protect estuaries and coastal areas to ensure that a targeted amount of land and oceans is under protection.

The challenge for marine fisheries is to maintain the integrity of and balance in marine ecosystems while deriving sustainable economic benefits from living marine resources. The main constraints to achieve this are the productivity of key resources, which is influenced by the environment and impacted upon by illegal catches, and managing catches in each fishery in a sustainable way. The desired outcomes are to rebuild stocks of threatened species and to reduce illegal catches

Waste (e.g. hazardous waste, healthcare waste, mine dumps, leachate/sludge & general/solid waste management)

Increasing quantities of waste, poor waste management and lack of access to waste services lead to pollution and associated health impacts and environmental degradation. This is coupled to the fact that levels of recycling and re-use are relatively low and waste is not necessarily seen or considered as a resource with socio-economic potential.

To address challenges in this area the NDP identifies the implementation of the waste hierarchy strategy of reduce, re-use and recycle. This requires product stewardship (producer responsibility) and the rapid expansion of recycling infrastructure.

Air pollution

South Africa's continued reliance on fossil fuels is resulting in air pollution hotspots, especially in the winter months. Of particular concern are priority pollutants such as particulate matter and nitrates which leads to respiratory illness. To ensure realisation of everyone's right to air that is not harmful to health and well-being, it is imperative that there is the effective implementation of the Air Quality Act and the development and use of innovative approaches like air quality offsetting.

Water pollution

South Africa is a water-stressed country and faces future drying trends and weather variability with cycles of droughts and sudden excessive rains whilst the health of aquatic ecosystems is declining. Wastewater pollution in the marine environment has continued to worsen and inland water quality is declining due to pollution from chemical and bacteriological pollution and siltation.

Healthy catchments, rivers and wetlands provide crucial ecological infrastructure that supports water quality and quantity. Investing in this ecological infrastructure can play a key strategic role in supporting water security and preserving ecosystems.

Adapting to changing climate

South Africa is a significant contributor to greenhouse gas emissions and the country is also vulnerable to the impacts of climate change with adverse effects on inter alia socio-economic conditions, water, food security, health, natural resources and ecosystem services. In order to address increasing emissions of greenhouse gases, market-based instruments such as a carbon tax, carbon budgets and policy support for low-carbon technologies will be employed to ensure that greenhouse gas emissions peak, plateau and decline. There is also a need to enhance the resilience of people and the economy to adapt to the effects of climate change.

3. NDP Output Priorities to achieve the Vision

The NDP acknowledges that the transition to an environmentally sustainable future which is carbon constrained will require the decoupling of economic growth from natural resource degradation and depletion. There is therefore a need to build human capital and technological base for implementation of programmes that will grow the economy without increasing South Africa's emissions profile. The NDP has identified the following sub-outcomes and actions:

- Sub-outcome 1: Ecosystems are sustained and natural resource are used efficiently
- Sub-outcome 2: An effective climate change mitigation and adaptation response
- Sub-outcome 3: An environmentally sustainable, low-carbon economy resulting from a well-managed just transition
- Sub-outcome 4: Enhanced governance systems and capacity
- Sub-outcome 5: Sustainable human communities

4. Management of Implementation

In the implementation of the National Development Plan, to manage the transition to an environmentally sustainable low carbon economy, there is a need to strengthen institutional mechanisms. Environment is a concurrent and cross cutting function. The Department of Environmental Affairs is the coordinating department for Outcome 10. The monitoring and coordination of the implementation of deliverables as outlined in the Outcome 10 Delivery Agreement is conducted by the Intergovernmental Relations intergovernmental mechanisms known as MINMEC and MINTECH which have been extended to include nine provincial departments responsible for environmental affairs, sector departments, public entities and other partners such as South African Local Government Association (SALGA) that contribute to the achievement of outputs.

The Executive Implementation Forum, the extended MINMEC: Environment that is convened and Chaired by the Minister of Water and Environmental Affairs, and technical Implementation Forum, Headcom or the extended MINTECH: Environment that is convened and Chaired by the DG of Environmental

Affairs, are therefore used. The MINTECH 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.

5. MTSF sub-outcomes and component actions, responsible ministry, indicators and targets

Sub-outcome 01: Ecosystems are sustained and natural resources are used efficiently

Ecosystems will also be sustained through an increase in the conservation estate, the protection of biomes and endangered species, rehabilitation and restoration of degraded land and ecosystems as well as through sustainable exploitation of natural resources. The desired impact is to restore the ecological integrity of natural resources and environmental assets.

Sub-outcome 01: Ecosystems are sustained and natural resources are used efficiently				
Action	**Minister**	**Indicator**	**Baseline**	**Target**
Implement strategies for water conservation and demand management	Water and Sanitation	Percentage reduction of projected demand for 8 large water supply systems	9.6%	20% by 2019
Water resources protection	Water and Sanitation	Percentage of water use license applications processed	66%	80% Annually
		Number of water resources classified	Not available	10
		Number of sites with River Health Programme implemented	180	550 river sites
Maintain or improve water-shed services in key rural Strategic Water Source Areas	Water and Sanitation Supported by Environmental Affairs Rural Development and Land Reform and Agriculture Forestry and	Number of significant, integrated water-related ecological infrastructure maintenance or improvement interventions	Numerous un-integrated projects country-wide.	20 Integrated interventions in each of 5 key rural Strategic Water Source Areas by March 2019

Sub-outcome 01: Ecosystems are sustained and natural resources are used efficiently				
Action	**Minister**	**Indicator**	**Baseline**	**Target**
	Fisheries			
Expand the conservation area estate through declaration of state owned protected areas, MPAs and biodiversity stewardship	Environmental Affairs Provincial departments SANBI SANPARKS Local authorities	# ha in the conservation estate	10.7% of land under conservation	13.2 % (16 121 794 ha)
		# biodiversity stewardship sites	Stewardship guidelines	30 additional stewardship sites (3 per Province and 3 National)
		#km2 MPAs	9% full protection and 13.5% partial protection	193 317 ha
Identify and develop management interventions for reducing species loss	Environmental Affairs Provinces SANBI SANPARKS	Number of legislative tools to ensure the protection of species and ecosystems developed and implemented	National Environmental Management: Biodiversity Act, 2004 (and amendments); Threatened or Protected Species list and regulations;	20 legislative tools
Integration of ecological infrastructure considerations into land-use planning and decision-making about new developments	Environmental Affairs Provincial departments Rural Development and Land Reform Local Authorities	Percentage of spatial development frameworks (SDF's) supported by a standard minimum environmental requirements	Not available	100% of all SDFs being developed and reviewed by 2019

Sub-outcome 01: Ecosystems are sustained and natural resources are used efficiently				
Action	**Minister**	**Indicator**	**Baseline**	**Target**
	Competent Authorities	% of environmental impact assessment applications processed within timeframes, reported quarterly from the National Environmental Assessment System	87%	98%
Implement environmental regulations to mitigate negative environmental impacts in exploitation of mineral resources	Environmental Affairs Water and Sanitation	Number of environmentally significant areas identified and published for restriction for mining activities	Matrix of biodiversity areas sensitive to mining identified	1 environmentally significant area identified, negotiated and published through NEMA by 2016
	Mineral Resources	Number of derelict and ownerless mine sites rehabilitated	Not available	250 (50 per year)
	Water and Sanitation	Number of catchments identified for Acid Mine Drainage	Not available	6
	Water and Sanitation Supported by Mineral Resources	Number of mines monitored for non-compliance in accordance with water license conditions	289	450
Integrated environmental assessments for major infrastructure and provision of incentives for green economic activities	Environmental Affairs	Number of regulatory interventions developed and implemented to streamline the environmental authorisation process for SIP projects	Not available	8

Sub-outcome 01: Ecosystems are sustained and natural resources are used efficiently				
Action	**Minister**	**Indicator**	**Baseline**	**Target**
Combat land degradation	Agriculture, Forestry and Fisheries (forestry areas) Environmental Affairs (Working for programmes)	Hectares of land under rehabilitation/restoration	2,283, 340 hectares 3,573,201 hectares follow up treatment	1 218 106 (DEA) 152 500 (DAFF) **TOTAL (1 370 600 ha)** 3 230 271ha (Follow up treatment by DEA)
	Environmental Affairs	Number of wetlands rehabilitated	96	695
		Number of emerging invasive species targeted for early detection	60	300
Scientific update of resource status and recommendations for the following season's sustainable catch for abalone, West Coast Rock Lobster and deep-water hake	Agriculture, Forestry and Fisheries	Status of the stocks report for abalone, rock lobster and hake	Sectors identified	Abalone at 31% above the pre-fished level by 2019 West Coast Rock Lobster at 26% above the 2006 level by 2019 Deep-water Hake at 30% of pre-fished biomass by 2019

Sub-outcome 02: An effective climate change mitigation and adaptation response

South Africa has committed to implement mitigation actions that will collectively result in a 34% and 42% deviation below its "business as usual" emissions growth trajectory by 2020 and 2025 respectively. Actions will include interventions that will mitigate against the effects of climate change. The NDP also recognises that the actions related to adaptation will depend on strong policies supported by a sound technical understanding and operational capacity to deal with developmental challenges. The desired outcomes include a reduction in impacts of climate change, risk mitigation through appropriate disaster responses and the deployment of innovative technologies that combat the effects of climate change.

Sub-outcome 02: An effective climate change mitigation and adaptation response				
Action	**Minister**	**Indicator**	**Baseline**	**Target**
Strategic Policy/ Regulatory frameworks and programmes to promote a low carbon economy	Transport	Green Transport Strategy and Implementation Plan formulated.	Not available	2018
	National Treasury	Number of thematic areas in implementing environmental fiscal reform policy instruments	Not available	5 (carbon tax policy, carbon offsets scheme, energy efficiency tax incentive, biodiversity tax incentive, fuel levy system)
	Energy	Percentage of new build that is renewable power generation (*to incorporate off-grid energy*)	Not available	42% (or 17 800 MW) by 2030 for renewable energy
			Not available	6% (or 2 600 MW) by 2030 for import hydro
		Percentage of energy efficiency improvement	Not available	12% by 2015 (Energy efficiency

Sub-outcome 02: An effective climate change mitigation and adaptation response				
Action	**Minister**	**Indicator**	**Baseline**	**Target**
				target for 2019 to be finalised by 2015 as outlined in the National Energy Efficiency Action Plan to be tabled for Cabinet consideration)
Development and Implementation of sector adaptation strategies/plans	Water and Sanitation; Agriculture, Forestry and Fisheries; Human Settlements; Provincial departments; Local Authorities	Number of sector adaptation strategies/plans completed	Scoping report to support policy alignment for climate change adaptation and draft climate change adaptation sector plans	5 Sectors by 2019 (Water, Agricultural & commercial forestry, Health, Biodiversity & ecosystems, Human settlements)
Include climate change risks in the disaster management plans	Cooperative Governance	Number of disaster management plans that include climate change risks	National Climate Change Response Policy White Paper approved by Cabinet	40 (8 per financial year)
Research in Climate services	Science and Technology supported by Environmental Affairs	Functional climate change research network formalised through MoU's	Not available	2019
		Biennial report to Cabinet on state of climate change science and technology	Not available	2 reports approved by Cabinet
	Environmental Affairs supported by South African Weather Services	National framework for climate services established	Not available	2016/17
Monitor, report and verify	Environmental Affairs	Framework for reporting on greenhouse	Not available	2015 and annual

Sub-outcome 02: An effective climate change mitigation and adaptation response				
Action	**Minister**	**Indicator**	**Baseline**	**Target**
greenhouse gas emissions		gas emissions by industry developed and reports provided		reports
	Energy	Biennial calorific value for all energy carriers published	Not available	All energy carriers
		Annual Energy Balances provided to support compilation of the GHG inventory	Not available	5

Sub-outcome 03: An environmentally sustainable, low-carbon economy resulting from a well-managed just transition

South Africa faces the triple challenge of poverty, inequality and unemployment which are aggravated by the increasingly negative environmental footprint of developments. To promote a just transition, investments, economic and infrastructure developments will need to consider the resource efficiency and impact on the environment.

Sub-outcome 03: An environmentally sustainable, low-carbon economy resulting from a well-managed just transition				
Action	**Minister**	**Indicator**	**Baseline**	**Target**
Promote a just transition to an environmentally sustainable economy	Environmental Affairs, Science and Technology and Provincial Departments	High impact environmental sustainability research, evidence gathering and systematic review commissioned	South Africa green economy modelling report published in 2013	1 integrated environmental sustainability research, evidence and review report published by 2017

Sub-outcome 03: An environmentally sustainable, low-carbon economy resulting from a well-managed just transition				
Action	**Minister**	**Indicator**	**Baseline**	**Target**
	Environmental Affairs, Provincial Departments and relevant sector departments	Number of environmental sustainability policies reviewed	National Framework for Sustainable Development and National Strategy for Sustainable Development were endorsed by Cabinet in 2008 and 2011 respectively	1 progressively developed and implemented environmental sustainability policy operational programme by 2019
Progressively develop, compile, transparently and accessibly report on a set of sustainable development indicators and underlying natural resource and pollution / emission indicators	Environmental Affairs Economic and Social Sector Departments Provinces Public Entities and State Owned Entities	Environmentally sustainable development performance indicators developed	The set of 20 Environmental Sustainability Indicators based on 45 variables that has been updated and published by the DEA annually since 2008; The current set of 20 NSSD1 Sustainable Development Headline Indicators and its 131 other indicators	2015
		SA Environmentally Sustainable Development Indicators published		2017
		SA Environmentally Sustainable Development Indicators Policy Makers Outlook published	State of the environment analyses and produced reports in 1999 and 2006 respectively.	2019
Enhanced environmental education; empowerment and job creation (including skills development)	Environmental Affairs, Provincial Departments and SANBI	Number of environmental awareness activities conducted	100	8 per annum (linked to environmental calendar days)
		Number of Full Time Equivalents (FTEs) created	233,482	EPWP-447 884
		Number of Work Opportunities created	817,588 (EPWP)	EPWP-1, 151 150

Sub-outcome 03: An environmentally sustainable, low-carbon economy resulting from a well-managed just transition				
Action	**Minister**	**Indicator**	**Baseline**	**Target**
				Non EPWP- 22 500 (DEA)
		Number of SMMEs used in environmental programmes	2 611	11 250 (DEA)
		Percentage of young people placed in exit opportunities (Youth Environmental Services)	Not available	75% (DEA)
Implementation of the Environment Sector Skills Plan to address capacity requirements (gaps)	Environmental Affairs, Provincial Departments and SANBI	Number of learners mentored through various initiatives in the sector (including learnerships)	Not available	500 (DEA)
		Number of SETA sector skills plans with an environmental focus	6	21 by 2019
Increase investment in research, development and innovation to support the transition to a green economy	Science and Technology, National Treasury, and Environment Affairs	Rand value of public and private sector investment in research and development to support a green economy	Not available	300% increase in the rand value of investment in R&D made in 2011

Sub-outcome 4: Enhanced governance systems and capacity

Managing the transition towards achievement of the vision will require strong institutional and governance mechanisms that create an enabling environment for stakeholders to contribute to the transition. The desired outcome includes the establishment of monitoring and evaluation mechanisms. Compliance mechanisms will also be improved to build a culture of compliance.

Sub-outcome 4: Enhanced governance systems and capacity				
Action	**Minister**	**Indicator**	**Baseline**	**Target**
Enhance compliance monitoring and enforcement capacity within the sector	Environmental Affairs Provincial departments	Number of compliance inspections conducted	14145	14750
		Number of enforcement actions undertaken for non-compliance with environmental legislation	1587	1605 completed criminal investigations handed to the NPA for prosecution (for EMI Institutions)
			3084	3150 administrative enforcement notices issued for non-compliance with environmental legislation
		Number of Joint Partnerships with external role players	Not available	35 (7 per annum)
Enhance global cooperation	International Relations and Cooperation Environmental Affairs	Number of country positions prepared for multilateral agreements approved	Chemicals and waste: 16 Biodiversity: 15 Sustainable Development: 3 Climate Change:5	50 (MEA and COPs) Chemicals and Waste – 16 Biodiversity - 22 Sustainable Development- 7 Climate Change -5

Sub-outcome 4: Enhanced governance systems and capacity				
Action	**Minister**	**Indicator**	**Baseline**	**Target**
Improvement in air quality	Environmental Affairs Provincial departments District Municipalities	Percentage of compliance with National Annual Ambient Air Quality Standards (National Air Quality Indicator – NAQI less than 1)	93%	100% compliance by 2030
		Percentage of Atmospheric Emission Licenses with complete applications issued within legislated timeframes	Not available	100% of AELs with complete applications
		Percentage of facilities with Atmospheric Emission Licences reporting to the National Atmospheric Emissions Inventory System (NAEIS)	50%	100% of facilities reporting annually by 2019
Less waste that is better managed	Environmental Affairs Provincial Departments Municipalities	Percentage of waste license applications finalised within legislated timeframes	Not available	80% of all complete applications
		Percentage of recyclables diverted from landfill for re-use, recycle and recovery	10%	20%
		Survey of unlicensed landfill sites completed	341	2015/16
		Number of unlicensed landfill sites licensed	341	Existing unlicensed landfill sites licenced by 2019 (# of new sites to be determined from the outcome of new survey)
Impacts of chemicals better managed	Environmental Affairs Sector Stakeholders	National Chemicals management policy developed	Regulatory framework from government	2018

Sub-outcome 4: Enhanced governance systems and capacity				
Action	**Minister**	**Indicator**	**Baseline**	**Target**
			departments, including Multilateral Environmental Agreements on chemicals management	

Sub-outcome 5: Sustainable human communities

Development planning should ensure the management of natural resources and environmental risks in order to pursue development planning goals. The desired outcome is a built environment that is low carbon, energy efficient, and that minimises waste.

Sub-outcome 5: Sustainable human communities				
Action	**Minister**	**Indicator**	**Baseline**	**Target**
Expand use of renewable energy through off-grid electrification	Energy	Megawatts of renewable energy deployed off-grid	Not available	15 MW
		Number of solar home systems (PV) installed	Not available	105 000
Local Government Support and Engagement	Environmental Affairs Provincial departments	Percentage implementation of the Local Government Support Strategy	Approved Local Government Strategy and Action Plan	100% (implementation of the plan per financial year)
	Cooperative Governance and Traditional Affairs	Sector support strategy on local government climate change response initiatives	Not available	2019

6. Impact Indicators

The table below reflects the key impacts expected from the actions described above. These impact indicators will be monitored to assess whether or not the actions described in this MTSF chapter are having the desired impact on the environment. This will assist in on-going improvements and revision to our plans when necessary.

Impact Indicator	Minister Responsible for reporting on the indicator	Baseline	2019 Target	Year 1 Targets
Percentage of area of state managed protected areas assessed with a METT score above 67%	Environmental Affairs	85% of area of state managed protected areas assessed with a METT score above 67%	90% of area of state managed protected areas assessed with a METT score above 67%	86% of area of state managed protected areas assessed with a METT score above 67%
Percentage of coastline with full protection	Environmental Affairs	9%	12%	9.36%
Percentage of coastline with partial protection	Environmental Affairs	13.5%	15%	13.5%
Percentage level of compliance of mines in accordance with the National Water Act	Water and Sanitation supported by Mineral Resources	35%	60%	40%
Reduced total emissions of Green House Gases	Environmental Affairs	Mitigation Potential Analysis Report	Setting of first Desired Emissions Reduction Outcomes(DERO's) (2016-2020) and second (2021-2025)	Setting the first Desired Emissions Reduction Outcomes (DEARO's) 2016-2020
Percentage Biomass increase of stock levels in Deep-water Hake, Abalone	Agriculture, Forestry and Fisheries	3 sectors identified (Deep-water hake, Abalone, West Coast Rock	Deep-water hake at 22% of prefished biomass Abalone at 27% above the	Recovery plans for the 3 sectors (deep water hake,

Impact Indicator	Minister Responsible for reporting on the indicator	Baseline	2019 Target	Year 1 Targets
and West Coast Rock Lobster			prefished level West Coast rock lobster at 26% above the 2006 level	abalone and West Coast Rock) updated and implemented Research report to indicate fish stock levels compiled.
Reduced vulnerability and risks associated with climate change impacts	Environmental Affairs Water and Sanitation Agriculture, Forestry and Fisheries Human Settlements Health COGTA	National Climate Change Response Policy White Paper approved by Cabinet	Climate Change Response for 5 key sectors implemented	Recommendation for the 4 sectors for mainstreaming climate change response measures into sector plans.