



PROGRESS IN THE IMPLEMENTATION OF THE OPERATION PHAKISA PROGRAMME

Portfolio Committee on Forestry, Fisheries and the Environment

07 DECEMBER 2021



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Oceans Economy Phakisa Programme



Mr. Andre Share
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- **Highlights from sub-sectors.**
- **Oceans Economy Master Plan development - Progress.**
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Growing the Oceans Economy

Operation Phakisa: Oceans Economy

- Potential of Nine (9) Ocean Sectors:
 - R177 billion to GDP by 2033 (compare R54 billion (2010)); 1 million jobs (compare 316 000 (2010))

Economic Impact:

(6 Ocean Sub-Sectors)

GDP: R153 billion (R41 billion investments).

Jobs: 26 764 jobs



Marine Transport and Manufacturing



Offshore Oil and Gas



Aquaculture



Marine Protection Services and Ocean Governance



Small Harbours and Coastline Development



Coastal and Marine Tourism



Skills Development and Capacity Building

Research, Technology and Innovation



Fisheries

Investments mainly in infrastructure development (in ports), marine manufacturing (boatbuilding), aquaculture and scientific and seismic surveys; coastal and marine tourism, small harbours and marine protection services and ocean governance

Critical considerations:

- **SMME development; Inclusion of women, youth and people with disabilities**
- **Transformation**



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MARINE TRANSPORT AND MANUFACTURING OVERVIEW OF INITIATIVES

A Infrastructure and operations

- 1 Create supportive funding and revenue model
- 2 Establish purpose-built oil and gas port infrastructure by appointing facility operators – Saldanha Bay
- 3 Align on implementation of government policy
- 4 Prioritise Transnet and TNPA funding allocation towards marine manufacturing
- 5 Maintain and refurbish existing facilities
- 6 Unlock investment in new and existing port facilities
- 7 Implement a Strategic Prioritised Project – Richards Bay
- 8 Implement a Strategic Prioritised Project – East London

B Skills and capacity building

- 9 Train 2,550 TVET College graduates on an 18-month workplace-based experiential learner programme in scarce and critical trades over the next 5 years
- 10 Create dedicated OTs for the MTM sector (professional, trades, operators and seafarers)
- 11 Establish trade RPL, CBMT or centers of specialisation in Saldanha Bay and Richards Bay
- 12 Train 18,172 learners as artisans, semi-skilled workers and professionals over the next 5 years
- 13 Increase usage of ESSA system and targeted career awareness services as a high-value recruitment tool for MTM
- 14 Increase capacity to develop skills for ~1,200 ratings and ~720 officers per year

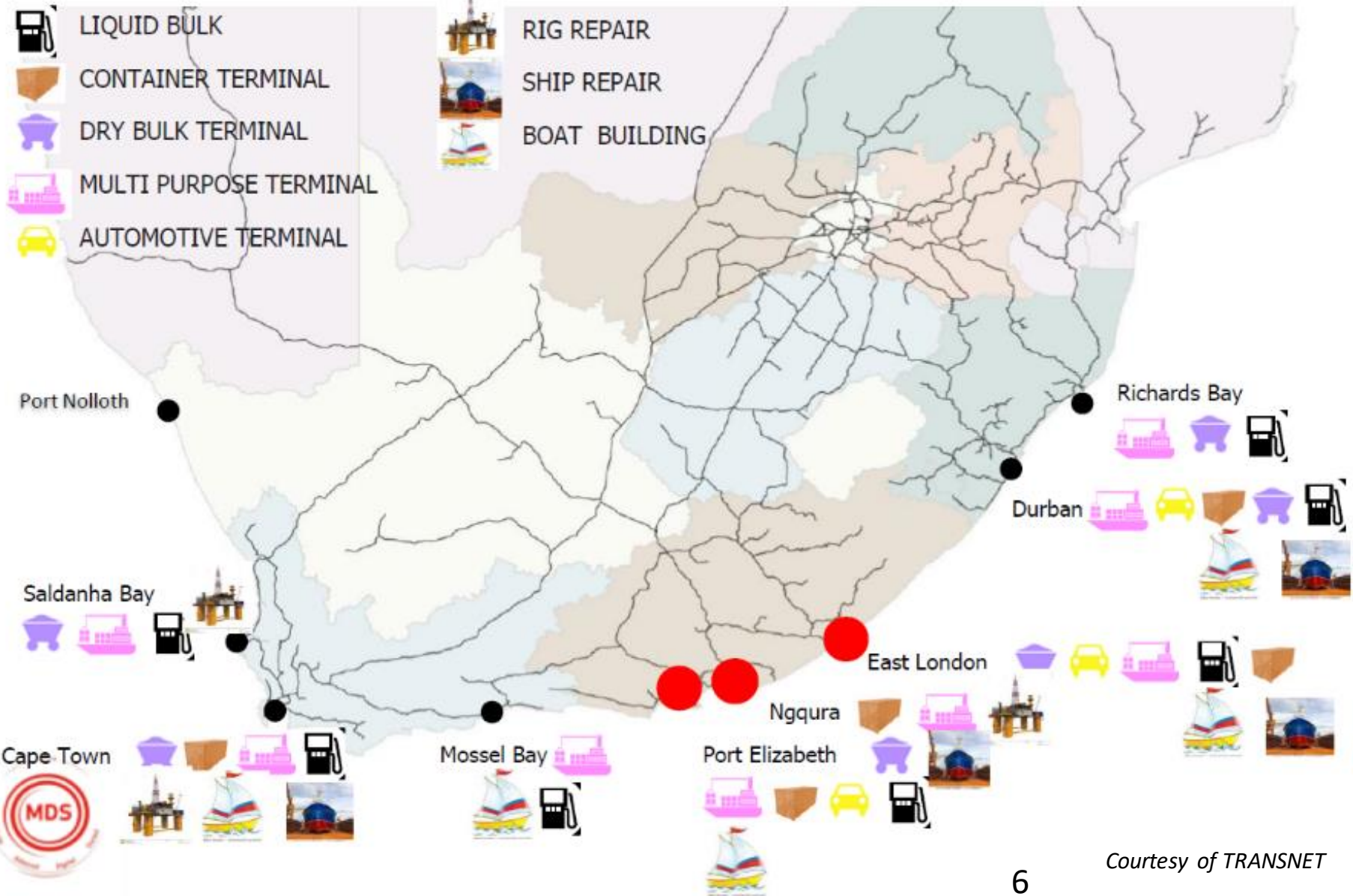
C Market growth

- 15 Create and implement a public procurement and localisation programme
- 16 Develop a strategic marketing campaign and value proposition for target markets
- 17 Propose inclusion of a preferential procurement clause in the African Maritime Charter
- 18 Support local registry of vessels through incentives and legislation of using SA-flagged ships for cargo and coastal operations (based on UN Conference on Trade and Development and African Maritime Charter guidelines)





SOUTH AFRICA HAS NINE MAJOR COMMERCIAL PORTS WITH OPPORTUNITIES FOR ECONOMIC GROWTH



MARINE TRANSPORT & MANUFACTURING

Refurbishment of existing Port Infrastructure:

PORT	COMPLETED PROJECTS	COMPLETION DATE
Durban	Repair of Outer caisson of Dry Dock	Mar 2015
Durban	Two new Overhead Cranes at Shop 24	May 2019
Durban	Dry Dock Concrete Repair	Oct 2016
Durban	Workshop 24: Equipment upgrade & refurbishment	May 2017
Durban	Repair of inner Dry Dock Caisson	Dec 2019
Port Elizabeth	Replace Lead-in Jetties	Dec 2016
Port Elizabeth	New Boat Hoist	Apr 2016
Cape Town	Syncro lift Mechanical Infrastructure- (Craddle Bogies & tower gangways)	Oct 2020
Cape Town	Syncro Lift Mechanical Infrastructure- (Main Beam package)	Feb 2021
East London	Refurbishment of Graving Dock including Main Shut-off Valve	July 2019
East London	Refurbishment of Graving Dock - Caisson gate	Sep 2020
Cape Town	Syncro Lift Civil Infrastructure Upgrades (Rail construction)	June 2021
Cape Town	Syncro Lift Civil Infrastructure Upgrades (Guardhouse & Fencing)	June 2021
Durban	Dry Dock Fire systems upgrade	Sep 2021

Projects for 2021 – 2024:

- Drydock cranes.
- Capstans.
- Synchro lift upgrades.
- Drydock facilities upgrades.

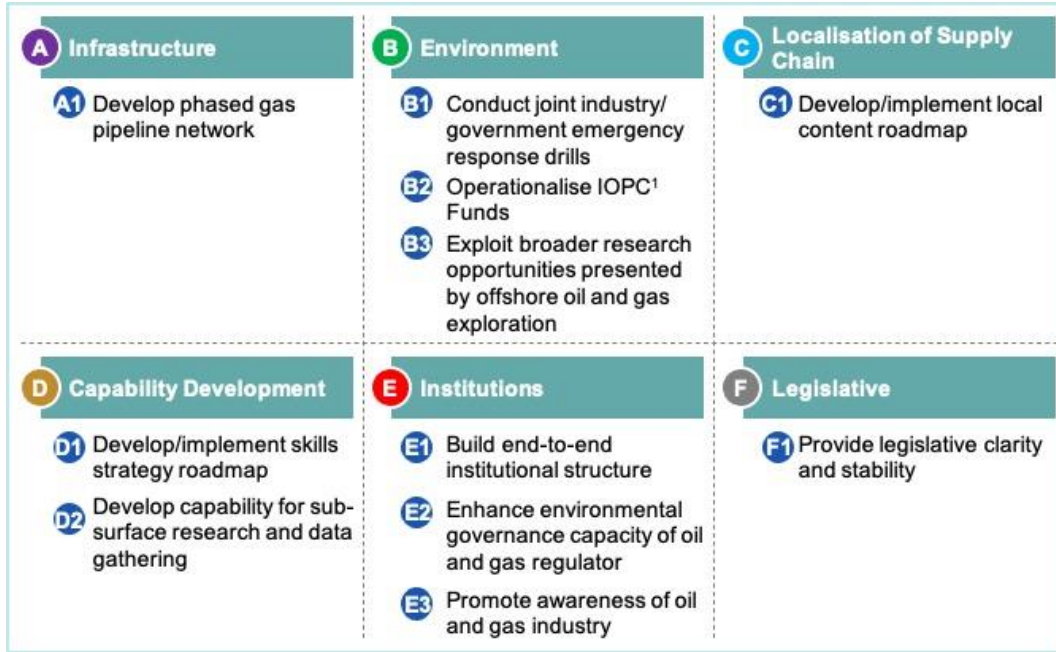
Strategic new infrastructure:

- Purpose-built oil and gas port infrastructure and marine manufacturing (incl. ship recycling) - Saldanha Bay.
- Ship recycling and associated marine manufacturing – East London.
- Floating docks – Durban & Richards Bay.

Marine Manufacturing:

- Tugboats; Diamond mining vessels; Hydrographic vessel; Smaller craft.
- Potential: Government Fleet Recapitalisation; Fishing Fleet Recapitalisation.

OFFSHORE OIL & GAS



South Africa has possible resources of ~9 bn barrels of oil and ~60 tcf of gas offshore, but uncertainty is high.

The aspiration is to create an environment that promotes exploration while simultaneously maximising the benefits for South Africa.

- Upstream Petroleum Development Bill – in Parliamentary process - to be fast-tracked as part of interventions by Department of Mineral Resources and Energy post-COVID-19 response.
- A total of **5 wells** have been drilled from 2014 to date (1 private & 4 Government (PetroSA)).
- Incident Management Organisation (IMOrg) established - emergency response.
- Strategic Environmental Assessment completed for the Phased Gas Pipeline – Gazetting of gas corridors.

AQUACULTURE INITIATIVES

1 Selection and Implementation of Catalyst Projects

2 Legislative reform

3 Inter-Departmental

Authorisations Committee

4 Globally recognised monitoring and certification system



5 Aquaculture Development Fund



6 Capacity building and skills development



7 Coordinated industry-wide marketing efforts

8 Government Preferential Procurement

9 Aquaculture Development Zone (New)



- 47 Aquaculture Projects
- 28 in production; 17 in planning
- 16+ SMMEs; 1 Cooperative
- 6500 jobs
- Production: 3548 tonnes
(Total sub-sector: 6365 t (2018))
- Aquaculture Development Bill
- Further stakeholder engagement.
- Strategic Environmental Assessment completed.
- Inter-departmental Authorisations Committee established.
- Import/Export Working Group established – diversification of markets, protecting local sector, trade regulations and exports.
- Expansion: Aquaculture Development Zones.



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MARINE PROTECTION SERVICES AND OCEAN GOVERNANCE

Integrated Ocean Governance and Protection

Integrated framework and governance



- 1 Ministerial Committee and Secretariat to govern activities
- 2 Enhancement of legislation for the Integrated Coastal and Oceans Management Act or Oceans Act
- 3 Review of ocean-related legislation
- 4 Accelerated capacity-building intervention in ocean governance

Ocean protection



- 5 Enhanced and coordinated enforcement programme
- 6 National ocean and coastal information system and extending earth observation capacity
- 7 National ocean and coastal water quality monitoring programme
- 8 Creation of a Marine Protected Area (MPA) representative network
- 9 MPA/MSP discovery, research and monitoring programme

Marine spatial planning (MSP)



- 10 Marine Spatial Planning (MSP) process

Marine Spatial Planning (MSP) Act

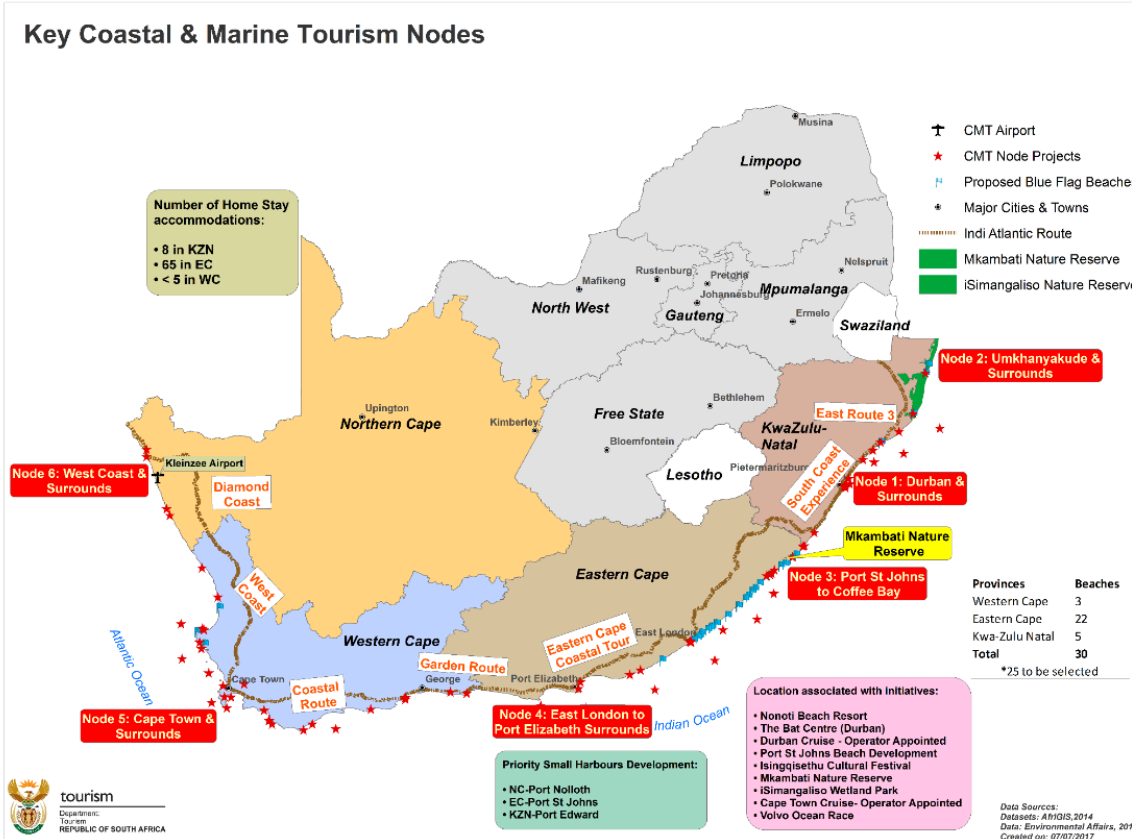
- Drafting of Sector Plans:
 - Aquaculture Sector Plan
 - Fisheries Sector Plan
 - Tourism Sector Plan
 - Transport Sector Plan
 - Mining Sector Plan
- Institutional arrangements implemented.
- **20 Marine Protected Areas gazetted**
 - Covering approx. 5%.
- **OCIMS (Oceans & Coastal Information System implemented.**
 - Vessel Tracking.
 - Harmful Algal Blooms.
- **Water Quality Programme implemented.**
- **Integrated & Coordinated Enforcement Programme implemented.**



COASTAL & MARINE TOURISM

Potential GDP contribution of R21.4 bn
Creating 116 000 jobs by 2026

Key Coastal & Marine Tourism Nodes



INITIATIVES

- Events and Routes.
- Beach Precinct Development and Enhancement (Infrastructure) and (Tourism Safety)
- Regulations and Permitting
- Data Collection and Research
- Maritime Tourism
- Skills Development.

- Targeted market strategy implemented.
- 8 Projects implemented: 1 189 Full-time Equivalents created.
- Tourism Strategy (Master Plan) being implemented.

SMALL HARBOURS DEVELOPMENT

A Establishment of new small harbours and development of coastal properties

- A1 National Framework and Development Guidelines for Small Harbours
- A2 Small harbour development programme
- A3 Coastal Community Commons
- A4 Small harbour Funding Framework
- A5 Stakeholder Engagement Model

C Socio-economic impact (Job creation, skills and enterprise development)

- C1 Small Medium Micro Enterprises Incubator Hub
- C2 Skills Development
- C3 Economic empowerment, Transformation and community beneficiation

B Redevelopment and maintenance of small harbours

- B1 Harbour Infrastructure Maintenance
- B2 Harbour Precinct Revitalisation
- B3 Safety and Security
- B4 Environmental Protection
- B5 Attracting Investment

D Institutional arrangements (governance and operational management)

- D1 Small Harbours intergovernmental coordination
- D2 Amendment and Development of legislation on small harbour and coastal property

- R500 mil invested; R81 mil SMME companies; 719 jobs.
- Completed the Small Harbour Development Framework.
- Economic research and feasibility study: Priority Small Harbours Development in Northern Cape, KwaZulu-Natal and Eastern Cape Provinces.
- Harbour Infrastructure Maintenance: Implementing the Repair and Maintenance Programme: 29 sunken vessels removed; Dredging completed at Gordons Bay, Hout Bay, Stillbaai, Struisbaai and Gansbaai.



Towards the development of an Oceans Economy Master Plan.....

Purpose: To advance the Oceans Economy and its related sectors as part of governments plan to ensure economic recovery.

The Oceans Economy Master Plan includes the following Ocean Sectors:

- Marine Manufacturing and Repairs.
- Marine Transport (including Freight, Logistics & Cargo).
- Aquaculture (Freshwater and Marine).
- Fisheries (Small-scale and Commercial).
- Offshore Oil and Gas.

Other Sectors in the Oceans space include:

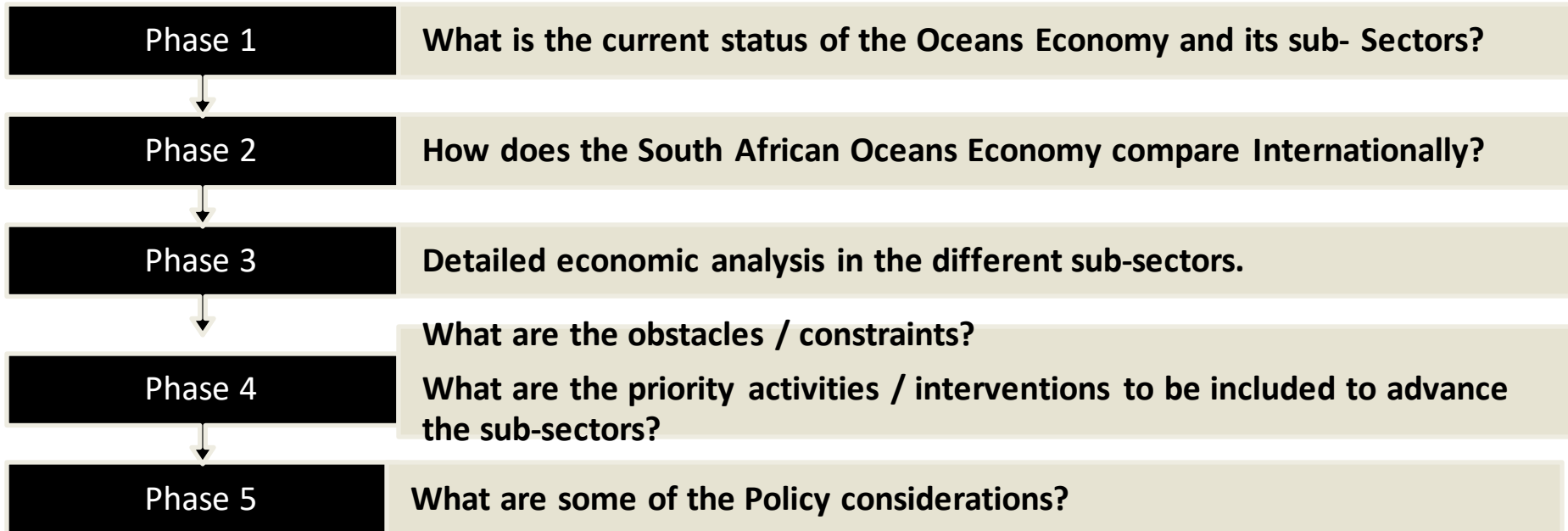
- Coastal and Marine Tourism.
- Renewable Energy.
- Coastal Infrastructure & Access (incl. Small harbours).
- Ocean mining (e.g. diamonds).
- Underwater infrastructure (e.g. communication cables).
- Desalination.



Towards the development of an Oceans Economy Master Plan.....

- Master Plan is simply “a **comprehensive plan** of actions”
- Principle of co-creation: Continued engagements and Working Sessions with Stakeholders – Organised Labour, Industry, Communities, Academia, Government, State-owned Entities.

Master Plan Phases



Interventions categorised into three broad thrusts:

- Stabilisation (1 - 6 months)
- Revival (6 -18 months)
- Growth (18 months and above)



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Towards the development of an Oceans Economy Master Plan.....

Progress to date:

- Extensive engagements were conducted with all stakeholders in the respective Working Groups and Small Working Teams.
- Aspects that are being covered in the Working Groups and Small Working Teams include:
 - Legal, administrative policy issues, authorisations including regulation.
 - Transformation (incl. Empowerment of Women, Youth, People with disabilities, SMME's). Jobs - job creation, job opportunities and decent jobs.
 - Skills development.
 - Infrastructure.
 - Enterprise Development and Supplier Development.
 - Market and market access.
 - Value chain analysis.
 - Market and market access.
 - Competitiveness.
 - Supporting Services.
 - Environmental issues: Climate change; Just transition and sustainable development; Ecosystem approach; sustainability of natural resources.
 - Funding Mechanisms.



Towards the development of an Oceans Economy Master Plan.....

Progress to date:

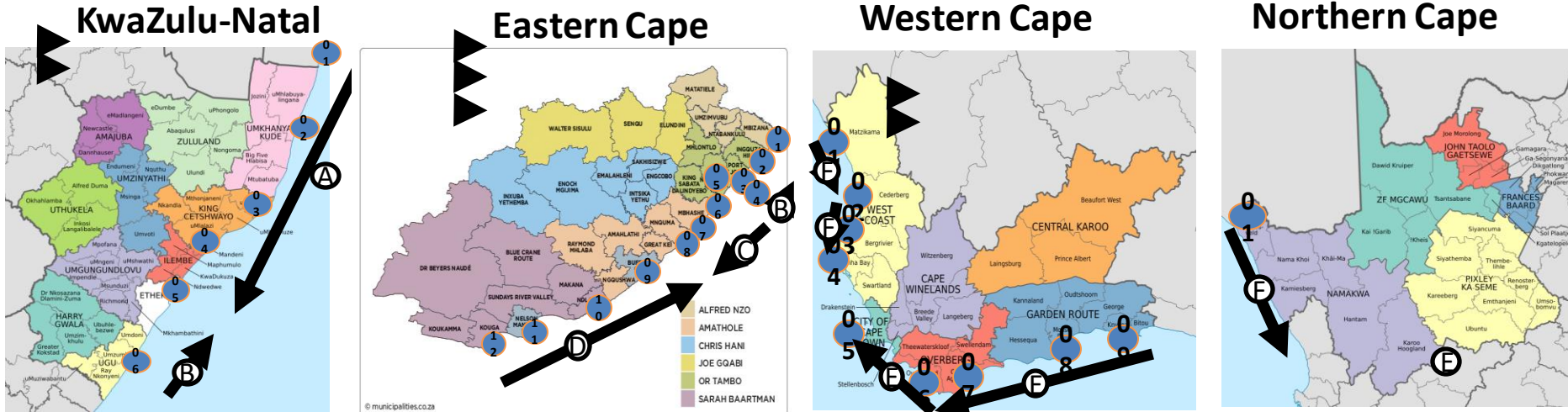
- Global review concluded for 3 sub-sectors.
- Sector Profiles currently being updated.
- SWOT (Strengths, Weaknesses, Opportunities and Threats) analyses concluded for 4 sub-sectors.
- Interventions drafted - requires prioritisation and agreement within the specified timeframes:
 - Stabilisation (1 - 6 months)
 - Revival (6 -18 months)
 - Growth (18 months and above)
- Legislative and authorisations Report drafted to feed into the Policy considerations.



Towards the development of an Oceans Economy Master Plan.....

Progress to date:

- The Fisheries sub-sector required further engagements with small-scale fishers (Cooperatives) along the coast – a combination of physical and virtual engagements were held in 27 venues along the coast.



- Further work is required for the Fisheries sub-sector.
- Draft reports for the respective Working Groups and Small Teams in respect of the Oceans Economy sub-sectors are being finalised.
- In parallel, the inputs of the stakeholder engagements are being consolidated into a draft Master Plan framework by 30 November 2021 for further stakeholder engagements.

Way Forward

- Focus - Economic Recovery.
- Implementing interventions to remove the constraints facing the respective sub-sectors.
- Finalisation of the Draft Oceans Economy Master Plan (end March 2022 for Cabinet submission).



It is recommended that the Portfolio Committee :

- Note the highlights of the Oceans Economy Phakisa Programme and the current progress with the development of the Oceans Economy Master Plan.





BIODIVERSITY ECONOMY PHAKISA PROGRAMME

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Table of Contents:

- Introductory background (species richness, definition and objectives)
- Biodiversity Economy's contribution to SA economy
- Dashboard Progress in the implementation of the biodiversity economy initiatives
- Progress in the implementation of biodiversity economy infrastructure projects
- Progress in the implementation of the Presidential Economic Stimulus projects
- Other Transformational government Interventions .
- Recommendations

SOUTH AFRICA OCCUPIES 2% OF THE GLOBAL LAND SURFACE

Indigenous Knowledge linked with the use of indigenous biological and/or genetic resources



7% of the world's reptiles, birds and mammals



10% of the world's plants



15% of the world's coastal marine species



ECONOMY

VALUE CHAINS



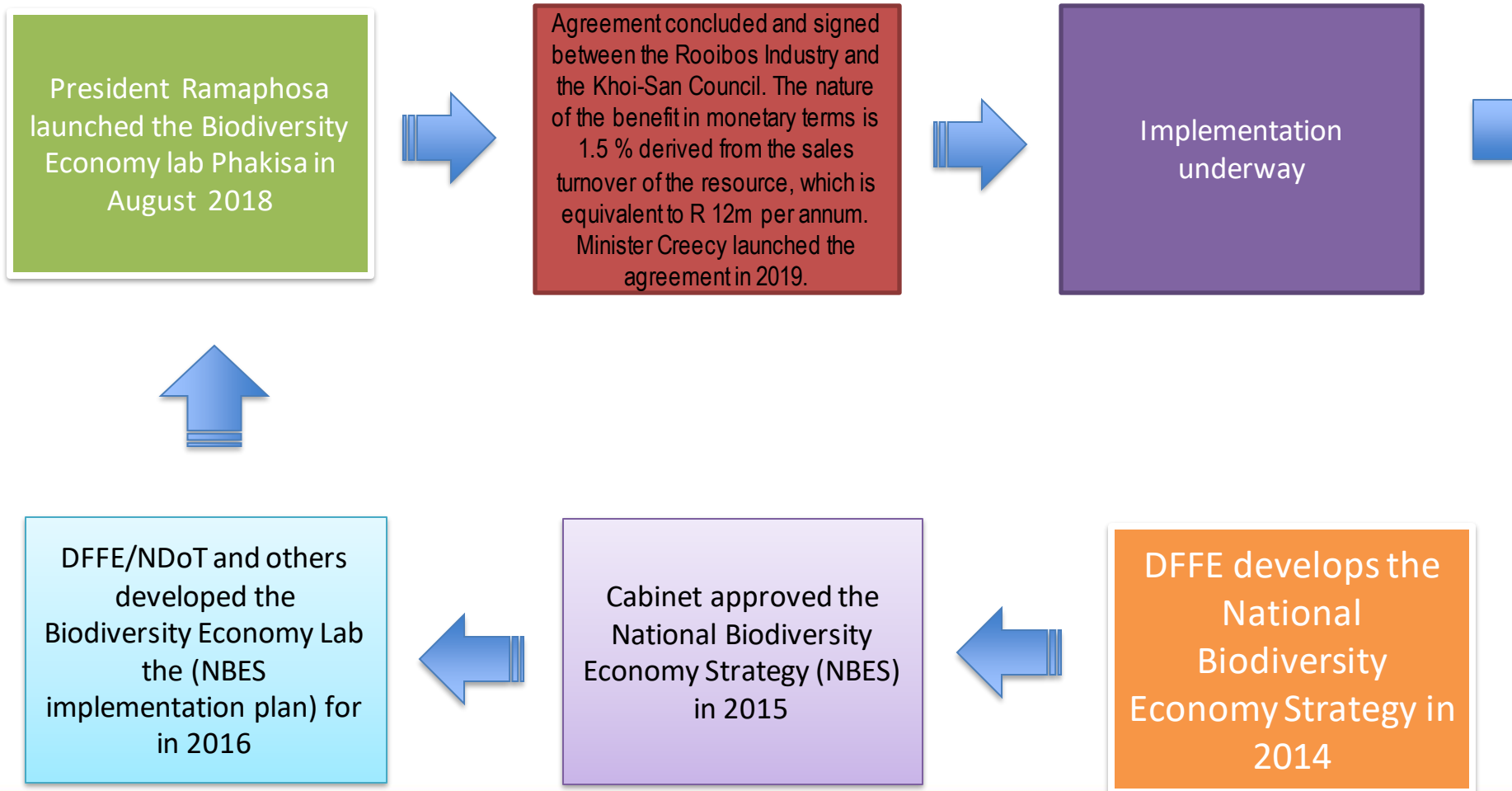
- The **biodiversity economy** includes businesses and other economic activities that either directly depend on biodiversity for their core business or contribute to conservation of biodiversity through their activities
- Biodiversity Economy can be divided into three main streams: **Wildlife Economy, Bioprospecting Economy and Ecotourism**



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THE BIODIVERSITY ECONOMY LAB PHAKISA JOURNEY





Wildlife Economy and bioprospecting



Bioprospecting

Searching for, collecting, harvesting and extracting living or dead indigenous species, or derivatives and genetic material thereof for commercial or industrial purposes



Wildlife

Centred on game and wildlife farming/ ranching activities that relate to the stocking, trading, breeding, and hunting of game, and all the services and goods required to support this value chain



BIODIVERSITY ECONOMY OBJECTIVES

		BIOPROSPECTING SECTOR	WILDLIFE SECTOR
Aspirations		To develop and improve the bioprospecting industry to create a sustainable, inclusive and commercially viable sector adding 10 000 new jobs and contributing R1.7 billion to GDP at 10% p.a. by 2030	An inclusive, sustainable and responsive wildlife economy that grows at 10% p.a until at least 2030 , while providing a foundation for social well-being and maintaining the ecological resource base
Objectives	Economic growth	<ul style="list-style-type: none"> • GDP contribution growth from R309 million in 2013 to R1.7 billion in 2030 • Grow from 6 200 to 16 200 permanent jobs 	<ul style="list-style-type: none"> • Average yearly sector GDP increase of ~10% • Create 100,000 new jobs
	Transformation	<ul style="list-style-type: none"> • 30-50% of South African bioprospecting products must have community involvement in the supply chain • Product development in the informal sector by focusing on TK holders, communities and members of the informal market • Diversify the market by promoting enterprise development and increasing accessible funding for new entrants 	<ul style="list-style-type: none"> • 30% of wildlife businesses PDI owned • PDI ownership of >5 million Ha, and access to another >5 million ha • 4,000 PDI owned SMMEs supported to engage in the wildlife economy
	Sustainability	<ul style="list-style-type: none"> • Grow cultivation of natural ingredients by at least 500 ha p.a 	<ul style="list-style-type: none"> • 5 Million ha of non-protected areas contributing towards conservation target (aichi) • 3.5% animal population net growth p.a.



BIODIVERSITY ECONOMY: A CATALYST FOR UNLOCKING THE POTENTIAL OF CONSERVATION AREAS



In 2018, the hunting industry contributed R13,6 billion to the GDP, at an average of R250 000 per foreign hunter and R58 000 per domestic hunter during the hunting season



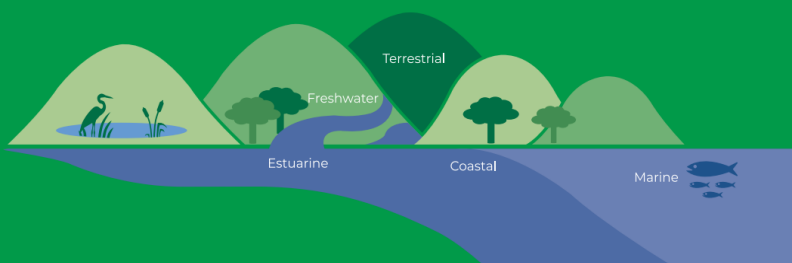
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BIODIVERSITY ECONOMY SATELITE ACCOUNT

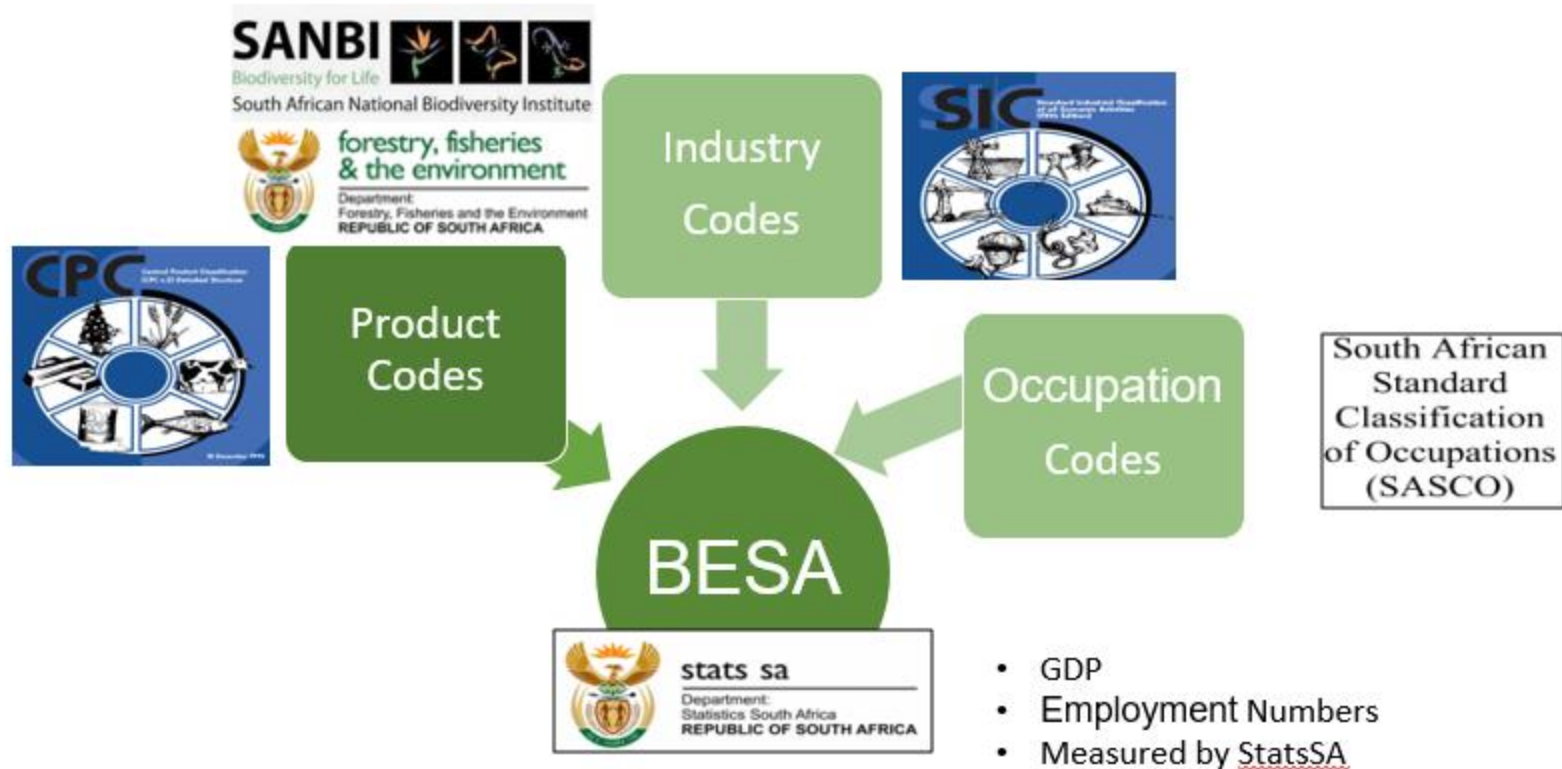
- South Africa has a wealth of biodiversity assets and ecological infrastructure that can contribute to inclusive growth and development
 - Policy interest and relevance, including National Biodiversity Economy Strategy
- Helps to make the case for investment in biodiversity
 - Including in managing and conserving the biodiversity and ecosystem assets that underpin the biodiversity economy



1.2 million km² land ■ 9 biomes ■ 485 terrestrial ecosystem types
1.1 million km² sea ■ 3 oceans ■ 150 marine ecosystem types
222 river ecosystem types ■ 290 estuaries ■ 2 sub-Antarctic islands
1 of 17 megadiverse countries ■ 3 of 36 global biodiversity hotspots
67 000 animal species ■ 20 400 plant species
6 transfrontier conservation areas ■ 26 Ramsar wetlands ■ 10 World Heritage Sites



Classification of the Biodiversity Economy Satellite Account (BESA)

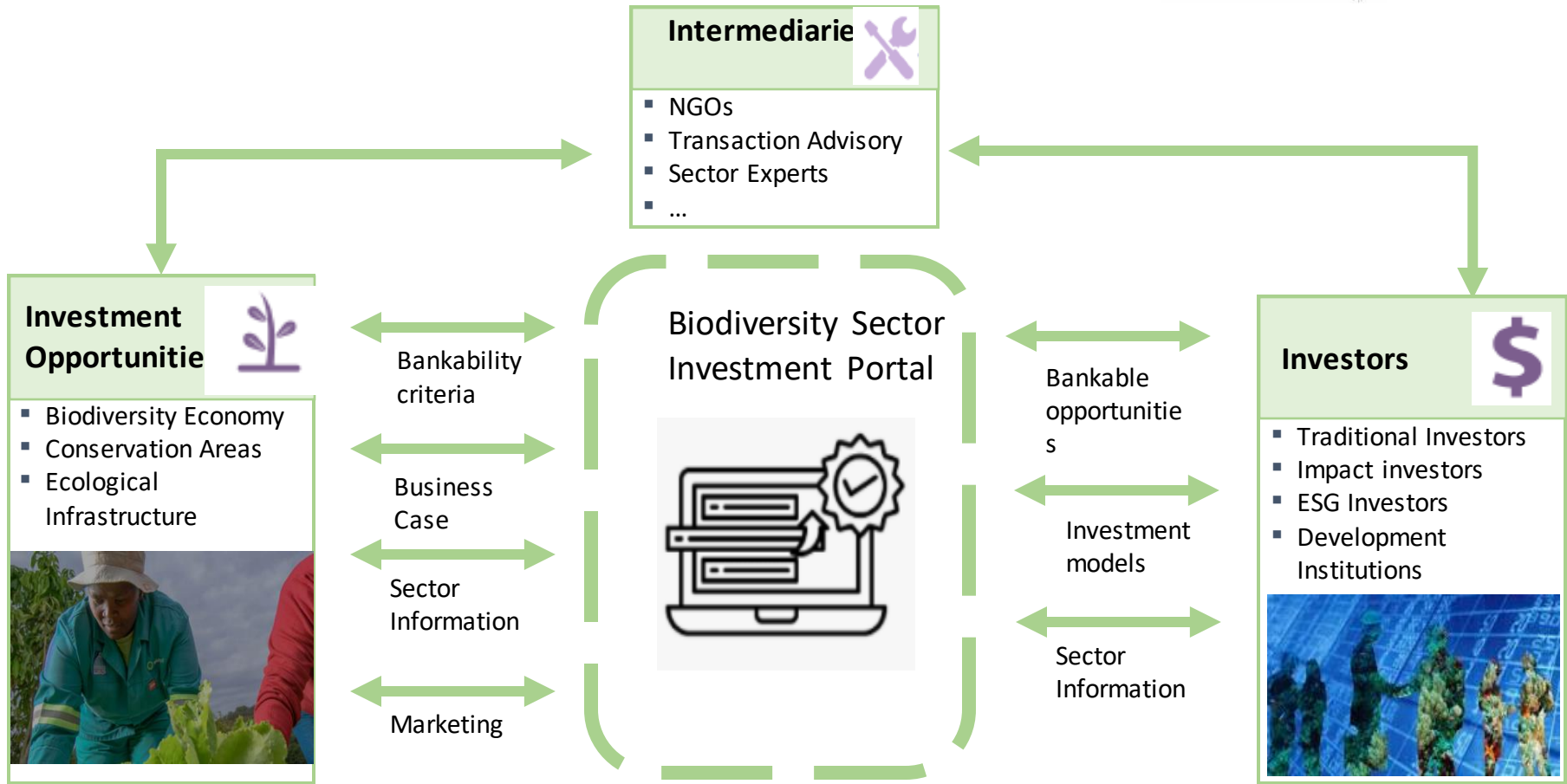


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BIODIVERSITY ECONOMY SECTOR INVESTMENT PORTAL



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Connections made



DASH BOARD PROGRESS ON INITIATIVES

Bioprospecting

Number of Focus Area Activities Due

300

% of Focus Area Activities Due Complete

67%

% of Focus Area Activities Completed on time

33%

67%

% of Focus Area Activities Complete

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

1 0.185... **55%**

% of Focus Area Time Lapsed

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

1 0.217... **57%**

Wild Life

Number of Focus Area Activities Due

702

% of Focus Area Activities Due Complete

53%

% of Focus Area Activities Completed on time

47%

53%

% of Focus

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

1 0.5... **50%**

% of Focus

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

1 0.217... **44%**




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Key initiatives to drive growth in the Bioprospecting Economy

How do we increase the supply?

1  Promote a mass cultivation drive of 25 plant species of strategic importance and increase cultivation by 500 hectares per annum


2  Define management plans to ensure sustainable wild harvesting of 7 high value plant species to safeguard long term supply


How do we increase demand and local value addition?

3  Establish a coordinating and facilitating BioPANZA (Bio Products Advancement Network South Africa) to harness existing initiatives and to address the innovation chasm

- Promote applied research, local processing, innovation and product development; and to promote the use and awareness of products with IBRs

Regulatory

4  Fast tracking amendments of Chapter 6 of National Environmental Management Biodiversity Act (NEM:BA) to ease compliance while ensuring protection of the rights and benefits of traditional knowledge (TK) holders and alignment with Nagoya Protocol on Access and Benefit Sharing

5  Improve efficiencies in the Bioprospecting Access and Benefit Sharing (BABS) permitting system

Transformation is a cross cutting essential

Bioprospecting Economy



Both wild harvesters and farmers supply the sector. The market is largely focused on plant resources.

Primarily trade in indigenous plant species of which 70% are exported as raw materials. Operate in two categories

- Trade of raw and semi-processed materials
- Development and sale of intermediary products

Development and sale of final value added products. The trend towards 'natural' products is high and customers pay a price premium for goods with indigenous resources.



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The Wildlife Economy Lab developed detailed plans for 15 initiatives and a further 6 recommendations

Recommendations¹

Facilitating transformation

- 1 Identify and prioritise **10m Ha for transformation** of wildlife economy
 - 2 Coordinate existing support mechanisms under a **'Wildlife Support Unit'** to efficiently support new entrants to the industry
 - 3 Increase capacity and **support for at least 300 Community Entities** including community property agreements (CPAs), trusts and traditional authorities
 - 4 Create **supply-chain linkages and capacitate 4,000 SMMEs** (new and existing) to locally capture the value of ancillary goods and services to the wildlife economy
 - 5 Operationalise the uMfolozi **Biodiversity Economy Node** as a pilot for the wildlife node concept
 - 6 **Empower 4,000 emerging entrepreneurs and farmers** through **focused capacity-building programmes**
- i Develop a toolkit of effective wildlife business, stewardship and partnership models

Driving growth through promoting 'value' and products

- 7 Formalise **SA game meat market** and create a network of game meat processing facilities
 - 8 Implement a campaign that drives **participative transformation and consumer growth** for wildlife-related activities and products
- ii Promote sustainable use as a foundation for conservation and growth of biodiversity economy
- iii Develop a strategic marketing campaign and value proposition for mixed game and livestock systems
- iv Establish mechanisms to allow for holistic and integrated management of animal health and conflict issues at the livestock-wildlife interface
- v Fast track the development of norms and standards to actively manage and mitigate critical wildlife economy risks such as intensive and selective breeding, animal diseases and invasive species

Creating an enabling environment for the wildlife sector

- 9 Create an **enabling legislative environment** through the amendment of NEMBA
 - 10 Develop and implement **wildlife industry standards**
 - 11 Implement a national wildlife economy **branding scheme**
 - 12 Develop and implement an **electronic wildlife permitting system** and centralised database
 - 13 **"Re-position" the Wildlife Forum** as an efficient interdepartmental/ industry collaboration and co-ordination platform to promote the benefits of the Wildlife Economy
 - 14 Develop an integrated **knowledge/ evidence generating and sharing platform** to support the wildlife economy
 - 15 **Leverage protected areas** to unlock economic potential
- vi Develop, upskill and resource extension services to facilitate the growth of the wildlife economy

¹ Recommendations will be included with high level activities, but these will not have 3ft plans

Wildlife Economy (with associated ecotourism)

Wildlife ranching



- **Primary activities:**
 - Breeding
 - Live sale
- **Secondary contributors:**
 - Live captures
 - Translocation Services
 - Veterinary Services
 - Fencing and maintenance

Wildlife activities



- **Primary activities:**
 - Wildlife Viewing
 - Trophy Hunting
 - Biltong Hunting
- **Secondary contributors:**
 - Accommodation
 - Transport
 - Equipment & Supplies (Arms, Ammunition etc.)
 - Taxidermy

Wildlife products



- **Primary activities:**
 - Game Meat Processing
 - Skin and Hide Production
 - Other products (e.g. curios and decorations)
- **Secondary contributors:**
 - Packaging and Transportation

NATIONAL OVERVIEW OF APPROVED PROJECTS

Focus area	Number of approved projects	Year of activation 20/21	Year of Activation 21/22	Year of Activation 22/23	Total budget
Biodiversity Economy (Wildlife and Bioprospecting)	108	20	51	37	R1 185 billion
Ecotourism Projects in protected areas (People & Parks)	57	21	14	22	R1 059 billion
Work opportunities	48 982				R2,2 billion



Biodiversity Economy- interventions

- **Wildlife and Bio-prospecting economies – particular bias to rural areas**
 - **Support to small scale as well developing farmers through seed funding for infrastructure development as well as required processing facilities – Game ranching, breeding, hunting outfitters, game meat processing equipment, Game donation/custodianship support**
 - **Mass Cultivation of priority species – e.g medicinal plants –construction of bioprospecting , bio-trade processing facilities**
- **Securing Biodiversity through provision of conservation infrastructure and human capital**
 - **Fences and Conservation Management roads**
 - **Staff and tourist accommodation**
 - **Bulk reticulation (Water, electricity and sewage)**
 - **Administration buildings and conference facilities**
- **Development of biodiversity corridors and nodes linked to SEZ, DDM and other local economic initiatives**
- **Environmental Monitors – Many accolades – UNEP: Champions of the Earth Award**
- **Youth Champions (1849)**
- **Support for Traditional Authorities (2455)**



BIODIVERSITY & CONSERVATION BRANCH PRIORITIES



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PROVINCIAL BREAKDOWN OF BIODIVERSITY ECONOMY

Province	Approved projects	2020/21	2021/22 Activation	2022/23 Activation	Budget
Eastern Cape	23	3	11	9	R244 000 000,00
Free State	3	1	2	0	R50 000 000,00
Gauteng	3	2	0	1	R18 000 000,00
KwaZulu Natal	13	2	6	5	R129 000 000,00
Limpopo	27	7	13	7	R296 000 000,00
Mpumalanga	6	2	4	0	R56 000 000,00
North West	16	0	7	9	R138 000 000,00
Northern Cape	14	3	5	6	R231 000 000,00
Western Cape	3	0	3	0	R23 000 000,00
TOTAL PROJECTS	108	20	51	37	
BUDGET		R250 000 000,00	R547 000 000,00	R388 000 000,00	R1 185 000 000,00
WORK OPPORTUNITIES		5 580	12 208	8 660	26 448





PROVINCIAL INFRASTRUCTURE IN PROTECTED AREAS (PEOPLE & PARKS)

Province	Approved projects	Active	2021/22 Activation	2022/23 Activation	Budget
Eastern Cape	13	11	2	0	R207 000 000.00
Free State	1	1	0	0	R40 000 000.00
Gauteng	1	1	0	0	R30 000 000.00
KwaZulu Natal	11	3	4	4	R239 000 000.00
Limpopo	8	1	3	4	R135 000 000.00
Mpumalanga	7	2	2	3	R170 595 553.00
North West	5	1	1	3	R90 000 000.00
Northern Cape	4	1	1	2	R55 000 000
Western Cape	7	0	1	6	R93 000 000
TOTAL PROJECTS	57	21	14	22	
BUDGET		R432 595 553.00	R277 000 000.00	R350 000 000.00	R1 059 595 553
WORK OPPORTUNITIES		9 655	5 066	7 812	23 648



PRESIDENTIAL ECONOMIC STIMULUS (THE YOUTH PES)

Initiative	Progress /Next steps	Progress
<p>1. People and Parks Youth Champions (conservation for the people, with the people) Employment of youth around protected areas to inculcate sense of ownership & responsibility to conserve land adjacent to protected areas.</p>	<p>Target 1849 targeted number of youth youth in and around protected areas</p> <p>Budget R30 million</p> <p>Model of Implementation: Recruitment and collaboration with Provinces/ MAs & Traditional Authorities (Procurement of PMs, PPE & stipend will be processed by DEFF)</p> <p>Implementation period: Four (4) Months</p>	<ul style="list-style-type: none"> 1524 youth commenced with their work across 9 provinces after signing their contracts in September 2021.

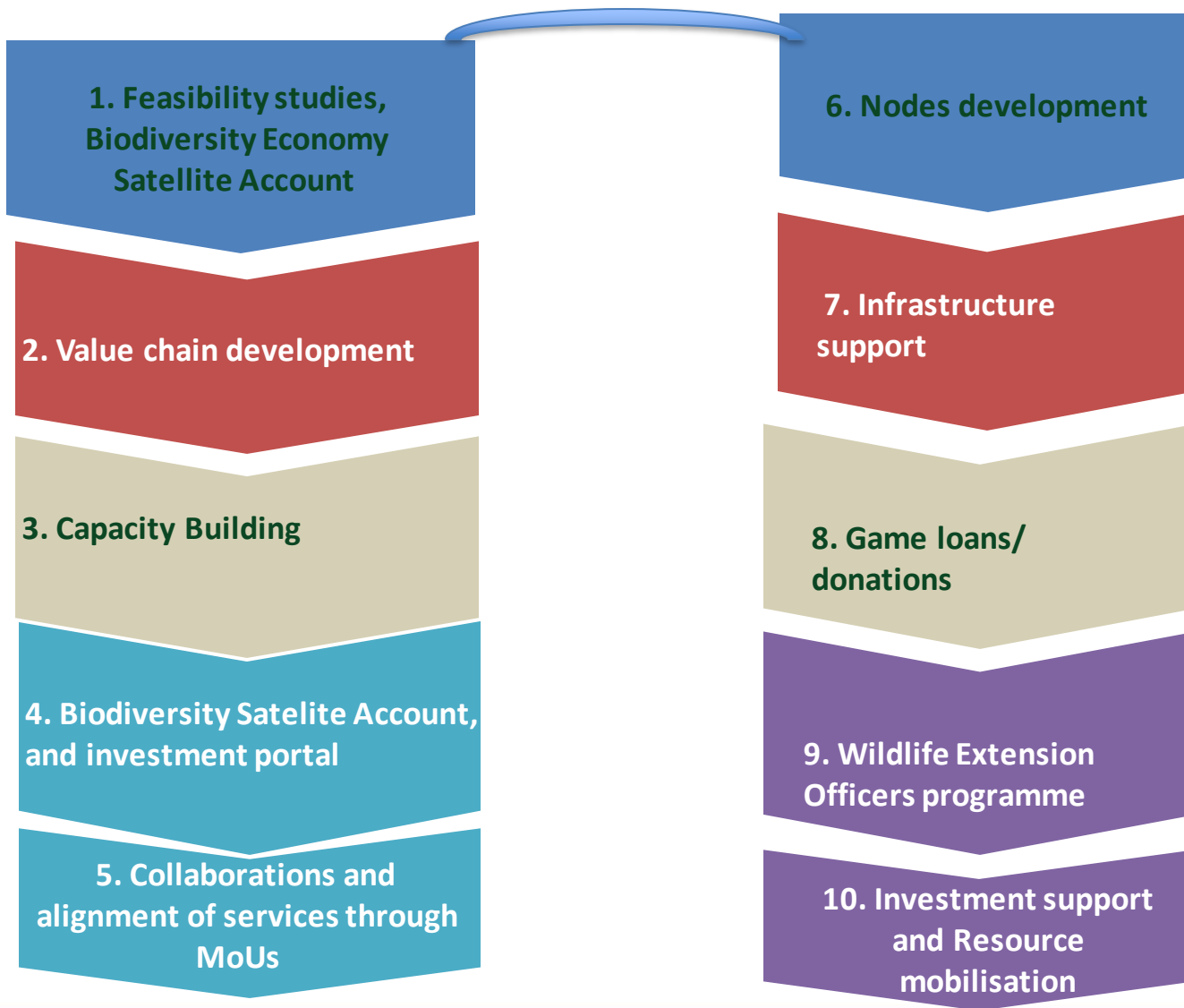


PES PILOT ON SUPPORT FOR TRADITIONAL AUTHORITIES

Initiative	Progress /Next steps	Progress
<p>1. Mass cultivation of indigenous biological species on 500 hectares of land within Traditional Authorities - The project focuses on the appointment of community members under the jurisdiction of Traditional Authorities to partake in the preparation and cultivation of indigenous plant species at identified/designated cultivation sites. Activities include clearing of land, seed sewing/planting.)</p>	<p>Target 2 455</p> <p>Approved Budget for 2020/21: R30 million</p> <p>Model of Implementation: Recruitment and collaboration with Traditional Authorities.</p> <p>Finalizations of the appointment of the Project Manager/s to manage the three initiatives.</p> <p>Implementation period: Three. (3) Months</p>	<ul style="list-style-type: none"> • Traditional Councils resolutions already signed and submitted to the department • Traditional Authorities already identified suitable land for mass cultivation of indigenous species • The department is busy with the procurement processes for the Project managers to manage the initiatives. • It is anticipated that the beneficiaries will commence with their work in January 2021
<p>2. Community Bioprospecting- Biotrade Support Programme: Support the livelihoods of harvesters and collectors of indigenous species in the wild (youth, women). - Support to collectors, harvesters and tappers of Aloe ferox, Pelargonium, Marula and Baobab fruits</p>		
<p>3. Collection/Recording of Traditional Knowledge associated with the utilisation of indigenous plant species - Collection/documentation of traditional knowledge associated with indigenous plant species</p>		



GOVERNMENT INTERVENTIONS TO SUPPORT SECTOR TRANSFORMATION



RECOMMENDATIONS

It is recommended that the Portfolio Committee :

- Note and discuss progress made in the implementation of Biodiversity Economy Phakisa Programme





CHEMICALS AND WASTE ECONOMY PHAKISA PROGRAMME

Ms. Mamogala Musekene
Deputy Director General: Chemicals and Waste Management



forestry, fisheries
& the environment

Department: Forestry, Fisheries and
the Environment
REPUBLIC OF SOUTH AFRICA



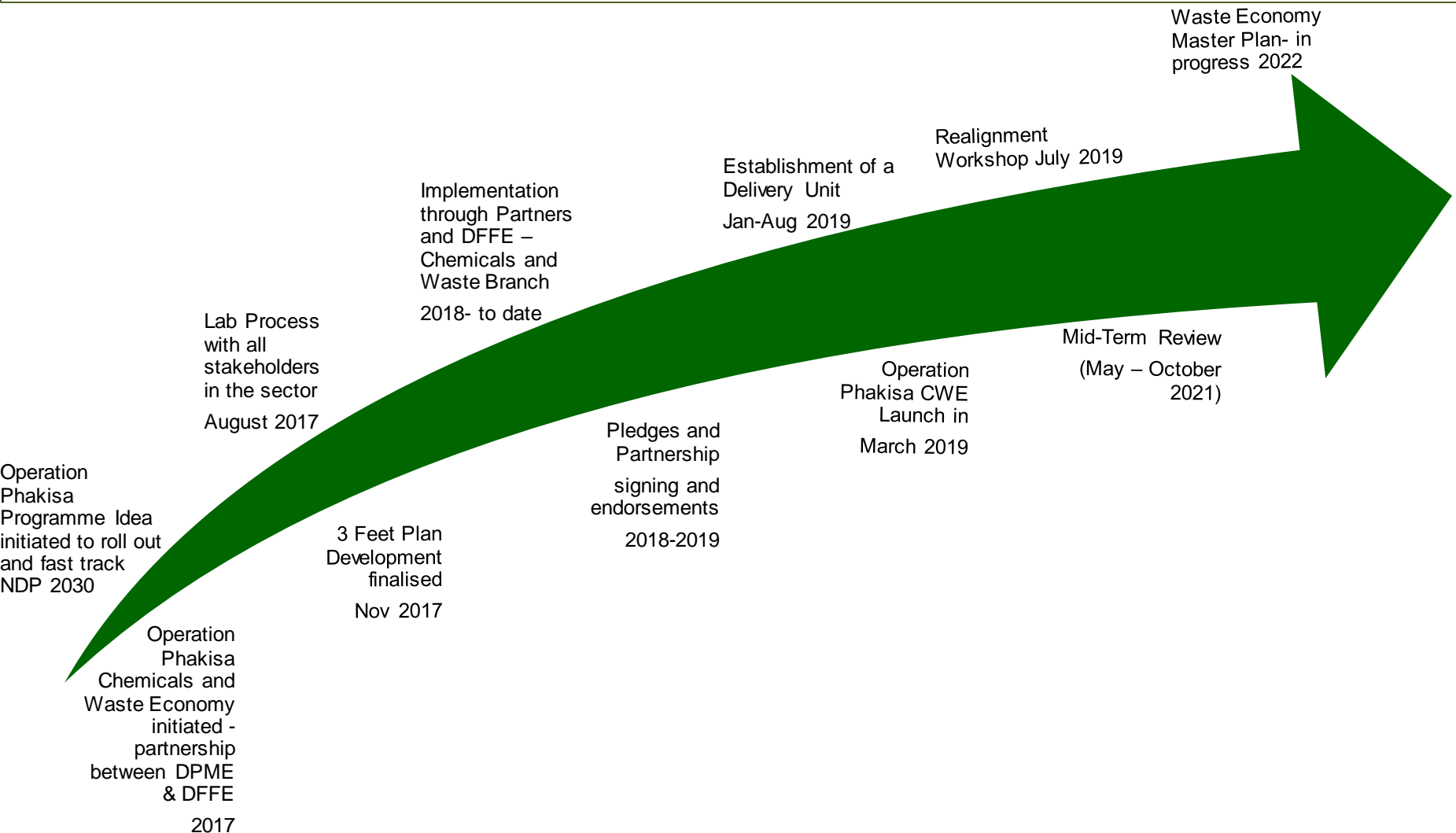


Table of Contents:

- Roadmap and implementation timeline
- Work Streams and initiatives:
 - ✓ Bulk Industrial Waste Work Stream
 - ✓ Municipal Waste Work Stream
 - ✓ Waste Minimization Work Stream
 - ✓ Chemicals Work Stream
 - ✓ Cross cutting: SMME Coordination & Awareness
- Conclusions



Operation Phakisa Chemicals and Waste Economy Roadmap and Implementation Timeline



20 initiatives across 4 work streams, including 2 cross-cutting

Bulk industrial waste



- 1 Increase ash uptake for alternate building materials¹
- 2 Accelerate innovation and commercialise existing R&D¹
 - Use ash as soil ameliorant
 - Use ash to treat acid mine drainage and backfill mines
- 3 Export ash and ash products¹
- 4 Zero sewage sludge to landfill
 - Anaerobic Digester (AD) Biogas to Energy
 - Fluidised Bed Reactor (FBR) Thermal Treatment
- 5 Towards Zero meat production waste to landfill by 2023

Municipal



- 6 Introduction of an E-waste levy to increase collection rate
- 7 Unlocking government ICT legacy volumes
- 8 Achieving a minimum of 50% of households separating at source by 2023
- 9 Introduction of materials recovery facilities and pelletisation plants to increase plastic recycling rates
- 10 Produce building aggregates and construction inputs from rubble and glass

Product design and waste minimisation



- 11 Developing capacity through a specialised programme which upskills agri-stakeholders to minimize food loss
- 12 Consumer awareness campaign to use and consume ugly food²
- 13 Compilation/update of packaging design guidelines
- 14 Formalising the packaging industry producer responsibility plans
- 15 Establish refuse-derived fuel plants across South Africa

Chemicals



- 16 Establish a refrigerant reclamation and reusable cylinder industry
- 17 Ban import of harmful chemicals (e.g. leaded paint/paint pigments)
- 18 Collect and dispose stockpiles of harmful substances (asbestos, mercury)

Cross-cutting initiatives

- 19 Coordinate SMME development opportunities across initiatives
- 20 Roll out national awareness campaigns



Bulk Industrial Waste Work Stream

Focus: Work stream with its identified initiatives, seeks to maximize the utilization and beneficiation of bulk industrial waste, with specific focus on **biomass, ash, slag, and gypsum** from desulphurization filters at power plants.



Initiatives

- 1 Increase ash uptake for alternative building materials
- 2 Accelerate innovation and commercialize existing R&D
 - Use ash as soil ameliorant
 - Use ash to treat Acid Mine Drainage and backfill mines
- 3 Export ash and ash products
- 4 Zero sewage sludge to landfill
 - Anaerobic Digester Biogas to Energy
 - Fluidised Bed Reactor Thermal Treatment
- 5 Towards Zero meat production waste to landfill by 2023

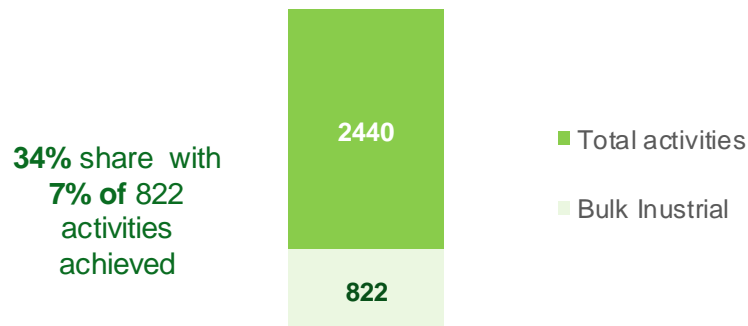
Impact: Jobs and Economic Value (planned)

- Direct Jobs **28,000**
- Indirect Jobs **59 000**
- Contribution to GDP **R7,4bn**
- SMME **1750**

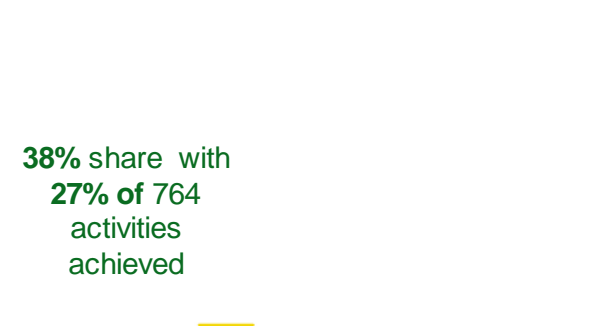
Impact: Environmental

Waste diverted from landfill **16mt**

2017 Three ft Plan activities



Reviewed Three ft Plan activities



Bulk Industrial Waste Work Stream

1. Ash for bricks, 2. Soil Amelioration & Acid Mine Drainage and mine backfilling , 3. Ash Export, 4. Sewage sludge and 5. Meat waste

Planned activities

- South African Coal Ash Association (SACAA) to lead Ash Working Group to coordinate various ash initiatives
- Create enabling legislative environment
- Conduct further research and development for beneficiation of Ash for soil ameliorants- Initiative 2a
- Conduct feasibility and risk assessments for ash export (i.e., feasibility on mode of transporting ash)- Ash Export
- Gather information on existing abattoir and feedlot on initiative 5 (meat waste)
- Norms and standards for composting

Achieved activities

- SACAA taking lead as industry experts
- 48 sites excluded through Sec 74, and **94** SMMEs were supported (Eskom= 18 off takers; Sasol= 64 off takers; Sappi = 12 off takers)
- University of Pretoria together with AgriMinTech conducted research in Emalahleni for the Pilot project
- Feasibility study on viability by Transnet in progress- Ash Export
- Database developed for feedstock across the country - meat waste
- Norms and standards for composting approved and in implementation

Challenges

- CWE Phakisa was launched two (2) years after the Lab
- Delays in the processing of waste exclusion applications
- Lack of buy-in key stakeholders

Corrective actions

- Review of the timelines to 2024/25, and targets (i.e. jobs, GDP, Diversion)
- Review and consequent amendment of the Waste Exclusions Regulations prioritised for 2022/23
- Improved coordination, SACCA to continue leading together with DFFE



Municipal Waste Work Stream

Focus: Workstream with its identified initiatives, seek to maximise diversion of waste from landfill sites. Diversion can be achieved through **reuse, recycle and recovery** of various waste streams including **organic, construction and demolition (C&D), e-waste and packaging waste (plastic, paper and glass).**



Initiatives

- 6 Introduction of an e-waste1 levy to increase collection rate
- 7 Unlocking government ICT legacy volumes
- 8 Achieving a minimum of 50% of households separating at source by 2023
- 9 Introduction of MRFs and pelletisation plants to increase plastic recycling rates
- 10 Produce building aggregates and construction inputs from rubble and glass

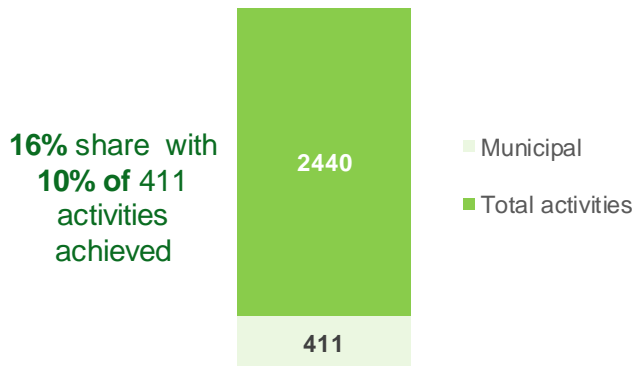
Impact: Jobs and Economic Value (planned)

- Direct Jobs **15,100**
- Indirect Jobs **21,200**
- Contribution to GDP **R2,1bn**
- SMME **4,500**

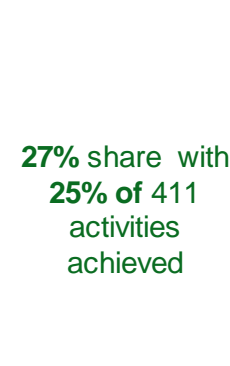
Impact: Environmental

Waste diverted from landfill **3,7mt**

2017 Three ft Plan activities



Reviewed Three ft Plan activities



Municipal Waste Work Stream

6. E-waste levy, 7. Government e-waste stockpiles , 8. Separation at source

Planned activities

- DFFE to issue Section 28 Notice
- Registration by Original Equipment Manufacturers (OEMs) & producers of "EEE"
- Development and approvals of IWMPs
- 50% of HHs in Metros implementing separation of waste at source

Achieved activities

- Section 28 Notice was replaced with Sec 18, and published EPR Regulations and three Section 18 Notices
- Original Equipment Manufacturers & producers of "EEE" have registered with DFFE
- 2 black Industrialist supported through Samsung/ the DTIC/ DFFE etc., for the collection and dismantling of e-waste
- Development and approvals of IWMPs- In progress, work has started with other provinces having their IWMPs endorsed. Terms of Reference (TOR) for Municipal By-Laws (8 x Metro's) developed.
- 11,3% of HHs already separating waste at source

Challenges

- CWE Phakisa was launched two (2) years after the Lab
- By-laws that are not mandating separation at source

Corrective actions

- Review of the timelines to 2024/25, and targets (i.e. jobs, GDP, Diversion)
- Implementation of the Section 18 EPR, and secure funding
- Implementation of By-laws to enforce IWMP



Municipal Waste Work Stream

9. Material Recovery Facilities and Plastic pelletisation and 10. Construction and Demolition Waste recycling

Planned activities

- A standardised design for the 17 MRFs and 6 Recycling Plants developed by 2018. Construction of 5 Big and 12 Small Dry MRFs by 2023 in identified municipalities. Construction of 6 Plastic Recycling Plants by 2023
- Amendment of green procurement policies and government tender specifications to require 30% recycled construction materials and clarification regarding standards

Challenges

- Review of MRFs specifications, increasing transfer stations for MRFs to run successfully,,
- Public tender specifications that do not promote secondary materials

Achieved activities

- 23 MRFs have been supported through the RESP programme.
- Green procurement strategy in progress
- Ongoing programme in support of Buyback Centres and Transfer stations across the country (i.e. including revitalisation of non-operational buyback centres)

Corrective actions

- Identification of funding model and operational capabilities of MRFs and transfer stations
- Implementation of the Section 18 EPR, and secure funding



Waste Minimisation Work Stream

Focus: Workstream with its identified initiatives, seeks to reduce volume of waste ending up in landfill sites. They can be captured by improving **product design**, increasing quality in **production practices** and promoting waste prevention, covering **packaging and food waste**

Initiatives

- 11 Agri platform
- 12 Ugly fruit Awareness
- 13 Packaging guidelines
- 14 Packaging EPR
- 15 Refuse-Derived Fuel (RDF)

Impact: Jobs and Economic Value (planned)

- Jobs **646**
- Indirect Jobs **2,105**
- Contribution to GDP **R1,32bn**

Impact: Environmental

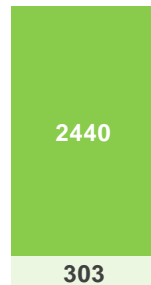
Waste diverted from landfill **511 000t**

Product design and waste minimisation



2017 Three Plan activities

16% share with 10% of 303 activities achieved



■ Waste Minimisation
■ Total Activities

Reviewed Three ft Plan activities

13% share with 29% of 259 activities achieved



Waste Minimisation Work Stream

11. Agri platform, 12. Ugly fruit Awareness, 13. Packaging guidelines, 14. Packaging EPR, 15. Refuse-Derived Fuel (RDF)

Planned activities

- Develop Packaging Guidelines
- Identifying opportunities & solutions to minimising food loss and waste
- Preparation and Publication of EPR Notice
- Submission of EPR Schemes (with possibility of consolidation into a single plan)
- Implementation and Monitoring of EPR schemes
- Conduct Feasibility Study and develop RDF business case

Achieved activities

- Packaging Guideline developed
- Food Waste Guideline developed and launched targeted interventions to minimise food loss – in partnership with CGSA and other industry players (retail and brand owners)
- EPR regulations in place and EPR for packaging under implementation
- Feasibility study completed & develop business case for establishment of 5 RDF Plants to address Adsorbent Hygiene Products and other residual waste streams

Challenges

- CWE Phakisa was launched two (2) years after the Lab
- Funding

Corrective actions

- Review of the timelines to 2024/25, and targets (i.e. jobs, GDP, Diversion)
- Working group was established to develop a plan to secure funding for food waste
- Implementation of the Section 18 EPR, and secure funding



Chemicals Work Stream

Focus: Initiatives with a two-fold benefit to increase SA's competitiveness in chemicals industry and create positive enabling business environment for SMME's to foster inclusive growth have been identified

Initiatives

- 16 Refrigerant reclamation
- 17 Lead-free paint
- 18a Mercury stockpiles
- 18b Asbestos stockpiles

Impact: Jobs and Economic Value (planned)

- Jobs **2,032**
- Indirect Jobs **1,000**
- Contribution to GDP **R511m**
- SMME **5**

Impact: Environmental

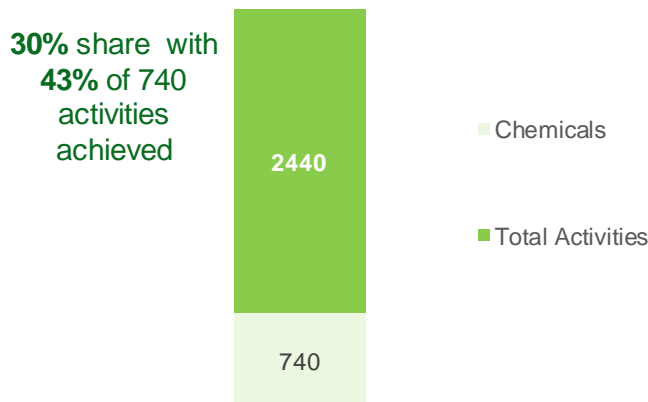
- Leaded paint imports stopped (ZAR m) **~297**
- Leaded paint pigment imports stopped (ZAR m) **~108**
- Waste diverted from landfill ('000 cylinders) **~225**
- Harmful gas venting abolished (000 GWP¹) **114**

Chemicals



2017 Three ft Plan activities

Reviewed Three ft Plan activities



Chemicals Work Stream

16. Refrigerant reclamation, 17. Lead-free paint, 18a. Mercury stockpiles, 18b. Asbestos stockpiles

Planned activities

- Regulation for the Phasing out of Disposable Cylinders used for Refrigerants
- Creation of 5 SMMEs within the Refrigeration and Air Conditioning (RAC) Sector
- Training of 2000 Refrigerant Recycling Technicians
- Banning of import of leaded paint products
- Phasing out of local production of leaded paint products
- Refinement of paint tariff codes in relation to its content
- Conducting of public awareness campaign on the impact of leaded paint hazards
- Development of a baseline/evaluation plan for the treatment and disposal of mercury stockpiles in South Africa

Achieved activities

- Reclamation of refrigeration gases and informal servicing technician training awareness roadshows
- 4 reclamation machines distributed to Gauteng, Limpopo and Northern Cape provinces
- Development of Social and Economic Impact Assessment (SEIAS) for prohibition of paint products (imports and local production) with a lead content of more than 90 ppm,
- Revision of legislation (Hazardous Substance Act) relating to lead content in paint products (not published yet)
- Treatment of Mercury stockpiles at Cato Ridge in progress

Challenges

- CWE Phakisa was launched two (2) years after the Lab
- Funding challenges leading to slow progress in the implementation of Mercury and Asbestos initiatives

Corrective actions

- Review of the timelines to 2024/25, and targets (i.e. jobs, GDP, Diversion)
- Develop a National Mercury Management Strategy (NMMS) and the Mercury initiative is proposed to be dropped as all mercury stockpiles resolved
- Secure funding for SMMEs in RAC sector



Work Stream 5: SMME Coordination & National Awareness

Focus: These Cross-cutting initiatives seeks to support **SMME development** and entrepreneurial activity and raise **National Awareness** in the chemical and waste economy

Initiatives

19 SMME Coordination

20 National Awareness

Impact: Jobs and Economic Value (planned)

▪ Direct Jobs

41,300

▪ SMME

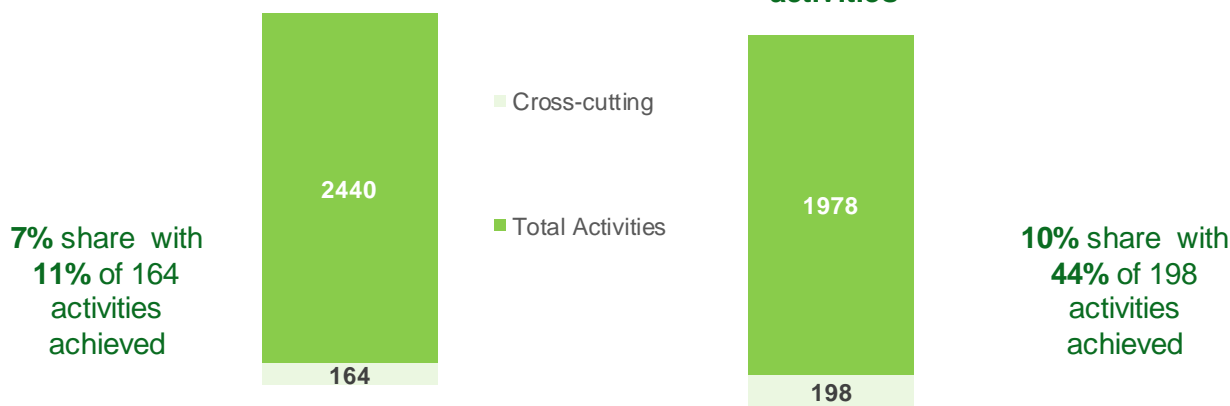
4,300

Cross-Cutting



2017 Three Plan activities

Reviewed Three ft Plan activities



Work Stream 5: SMME Coordination & National Awareness

Planned activities

- Hire a dedicated resource to sit within DU and lead SMME support
- Create directory of financial and non-financial support available to SMMEs
- Facilitate SMME access to financing through transversal agreement and batch adjudication
- Facilitate SMME access to non-financial forms of support
- Identify and attract entrepreneurs to Phakisa
- Keep abreast of technological innovation relevant to Phakisa initiatives and incorporate into initiatives,
- Develop overarching awareness strategy and campaign brand, Develop content for awareness campaigns
- Develop campaign brand and campaign strategy, Campaign launch and M&E

Challenges

- CWE Phakisa was launched two (2) years after the Lab
- Funding

Achieved activities

- Reclamation of refrigeration gases and informal servicing technician training awareness roadshows
- Development of a web-based directory of financial and non-financial support (procurement initiated)
- Engagements with partners to access existing funding (DBSA, DTIC & other DFIs). MoU with DSBD, SEDA and SEFA (signed)
- Industrial symbiosis programme (waste brokering) in support of chemicals and waste sector SMMEs (procurement initiated)
- Business case for establishing a National Waste Beneficiation and Discretionary Fund & a Micro-grant facility for community clean-ups (in progress)
- Awareness strategy and campaign plan developed and ready for implementation

Corrective actions

- Review of the timelines to 2024/25, and targets (i.e. jobs, GDP, Diversion)
- Secure funding for SMMEs



Conclusion

- Develop Waste Economy Master Plan, and get a buy-in from the Industry
- Collective approach to minimising the negative environmental impacts associated with waste generation by avoiding (product re-design), reusing and recycling
- Promotion of Green industries for uptake of recyclate.
- Waste management sector is exploiting the innovation potential and improving socio-economic conditions while contributing to sustainable development.
- Capital raising for the initiatives (SIDS partnership)



Abbreviations

EEZ	Exclusive Economic Zone
GDP	Gross Domestic Product
BN	Billion
CAGR	Compound Annual Growth Rate
TBD	To be Determined
DEFF	Department of Environment, Forestry & Fisheries
DPME	Department of Planning, Monitoring & Evaluation
DOT	Department of Transport
DPE	Department of Public Enterprises
DTIC	Department of Trade, Industry & Competition
DMRE	Department of Mineral Resources & Energy
DSI	Department of Science & Innovation
DHET	Department of Higher Education & Training
DPWI	Department of Public Works & Infrastructure
DARDLR	Department of Agriculture, Rural Development & Land Reform
DLE	Department of Labour & Employment
DHA	Department of Home Affairs
NT	National Treasury
DBSD	Department of Small Business Development
DOD	Department of Defence
DOW	Department of women, Youth & People with Disabilities
NDT	National Department of Tourism
DIRCO	Department of International Relations & Cooperation
DBE	Department of Basic Education
DHSWS	Department of Human Settlements, Water & Sanitation
TNPA	Transnet National Ports Authority
TVET	Technical and Vocational Education & Training
OT	Occupational Trade
MTM	Marine Transport & Manufacturing
RPL	Recognition of Prior Learning
CBMT	Competency-based Modular Training
ESSA	Employment Services of South Africa

UN	United Nations
TCF	Trillion (Standard) Cubic Feet
IMOrg	Incident Management Organisation
LNG	Liquid Nitrogen Gas
Mtpa	Million Metric Tonnes per Annum
PETROSA	Petroleum South Africa
Q3	Quarter 3
SMMEs	Small, Medium & Micro Enterprises
KM	Kilometre
MIL	Million
P.A.	Per Annum
ADZ	Aquaculture Development Zone
SEA	Strategic Environmental Assessment
NEMA	National Environmental Management Act
EIA	Environmental Impact Assessment
IAC	Inter-departmental Authorisations Committee
CASP	Comprehensive Agricultural Support Programme
IDC	Industrial Development Cooperation
ECDC	Eastern Cape Development Corporation
ECRDA	Eastern Cape Rural Development Agency
GTAC	National Treasury Government Technical Advisory Centre
ADEP	Aquaculture Development Enhancement Programme
FTE	Full-time Equivalent
CCCC	China Cooperation and Construction Company
MPA	Marine Protected Area
MSP	Marine Spatial Planning
NDIR	National Data and Information Report
WSU	Walter Sisulu University
OCIMS	Oceans and Coastal Information System
SSA	State Security Agency
NGO	Non-Governmental Organisation
FRAP	Fishing Rights Allocation Process



ABBREVIATIONS

SA: South Africa

ZAR: South African Rand

NDP: National Development Plan

DFFE: Department of Forestry, Fisheries and the Environment

DPME: Department of Planning, Monitoring and Evaluation

DBSA: Development Bank of Southern Africa

DSBD: Department of Small Business Development

DTIC: Department of Trade, Industry and Competition

CWE: Chemicals and Waste Economy

DU: Delivery Unit

MRF: Material Recovery Facility

RESP: Recycling Support Programme

OEMs: Original Equipment Manufacturers

EEE: Electrical and Electronic Equipment

IWMP: Industry Waste Management Plan

TOR: Terms of Reference

HH: Household

C&D: Construction and Demolition

ICT: Information and Communication Technology

SACAA: South African Coal Ash Association

AD: Anaerobic Digester

FBR: Fluidised Bed Reactor

EPR: Extended Producer Responsibility

CGSA: Consumer Goods Council of South Africa

RDF: Refused Derived Fuel

SEIAS: Social and Economic Impact Assessment

RAC: Refrigerant and Air-conditioning

NMMS: National Mercury Management Strategy

SMME: Small and Medium Enterprise

M&E: Monitoring and Evaluation

DFI: Development Finance Institutions

MoU: Memorandum of Understanding

SEDA: Small Enterprise Development Agency

SEFA: Small Enterprise Finance Agency

GDP: Gross Domestic Product

SIDS: Small Island Developing States

THANK YOU!

Thank You



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Department
Forestry, Fisheries and the Environment
REPUBLIC OF SOUTH AFRICA

