



REPUBLIC OF SOUTH AFRICA



# OCEANS ECONOMY

## SUMMARY REPORT

### SEPTEMBER 2017

# OPERATION PHAKISA: OCEANS ECONOMY

DEA, DPME, DOT, DPE, DTI, DMR, DOE, DAFF, DST, DHET, DPW, DRDLR, DOL, DHA, NT, DSBD, DOD, EDD, DOW, NDT, DIRCO, DBSA, DBE, DWS

## OCEANS ECONOMY FOCUS AREAS AND ENABLERS



**Marine Transport and Manufacturing**



**Offshore Oil and Gas**



**Aquaculture**



**Marine Protection Services and Ocean Governance**



**Small Harbours and Coastline Development**



**Coastal and Marine Tourism**

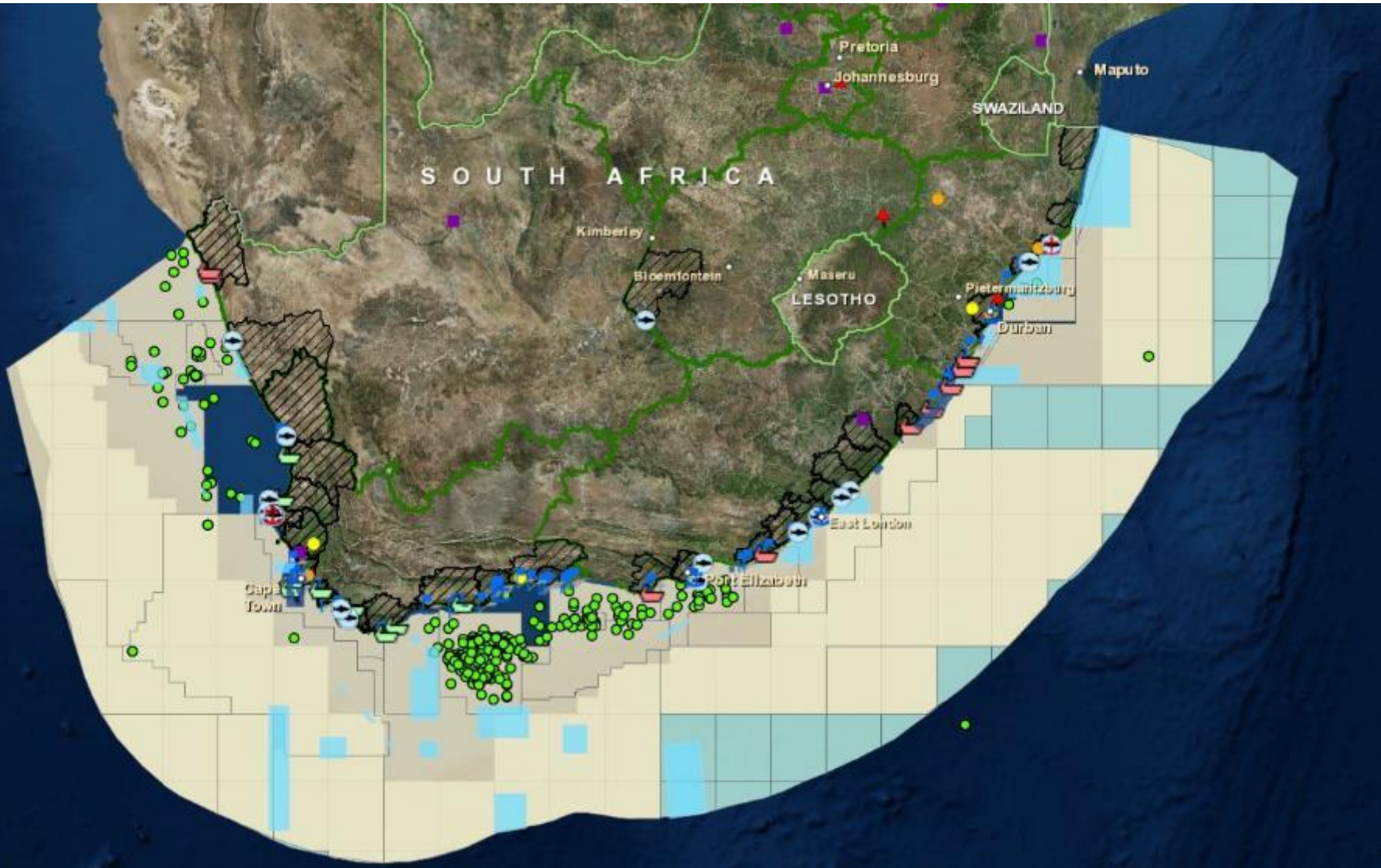


**Skills Development and Capacity Building**

**Research, Technology and Innovation**

It is estimated that the oceans economy has the potential to contribute up to R177 billion to Gross Domestic Product (GDP) by 2033 (compared to R54 billion in 2010) and create approximately 1 million jobs (compared to 316 000 in 2010).

# OPERATION PHAKISA: OCEANS ECONOMY FOOTPRINT





# OCEANS ECONOMY IMPACT

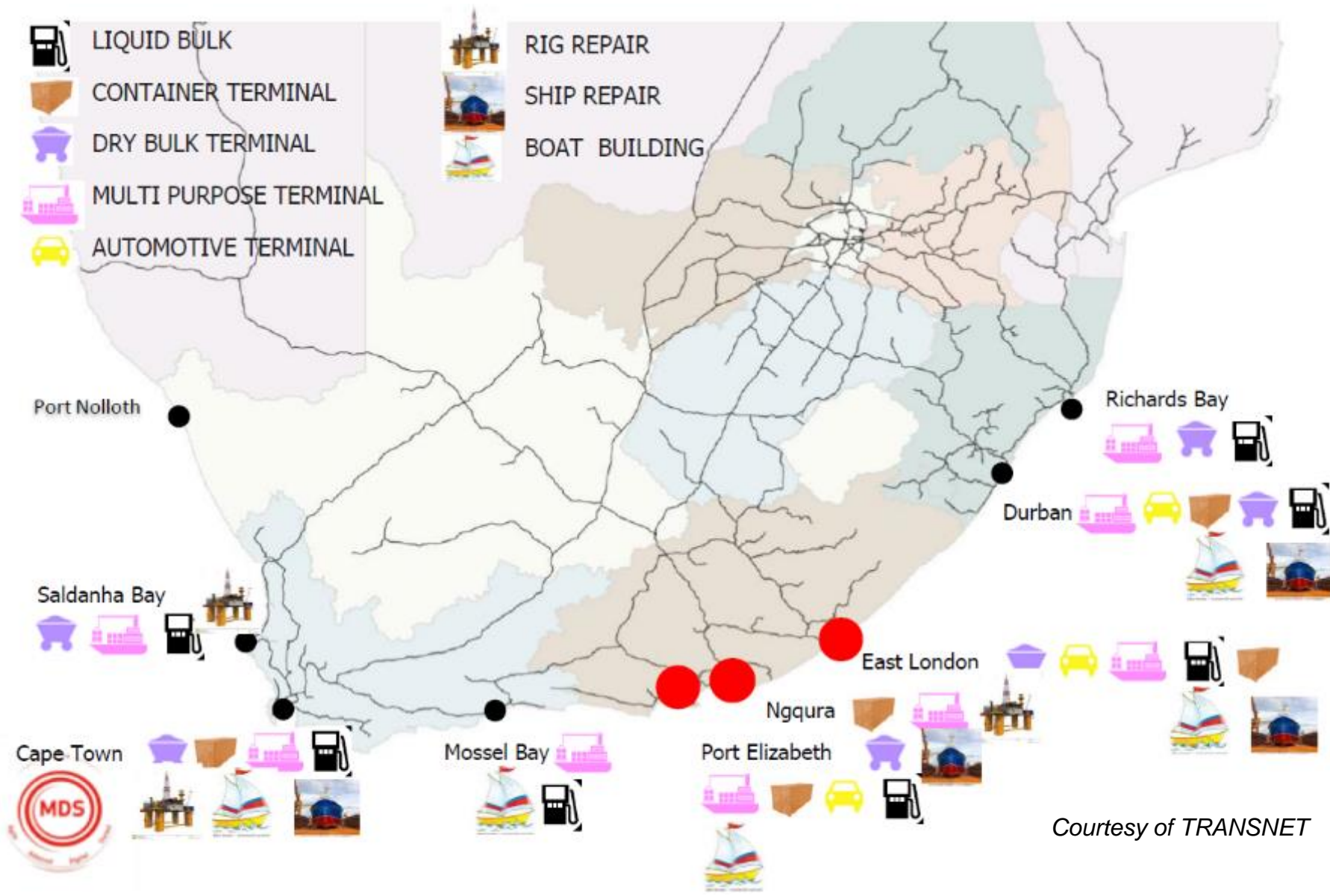
Operation Phakisa: Oceans Economy commenced with operational work after the October 2014 launch. Overall progress to date includes:

- Government has unlocked investments amounting to approximately R 24,569 billion in the Oceans Economy.
- Over 6 517 jobs have been created in the various sectors.





# SOUTH AFRICA HAS EIGHT MAJOR COMMERCIAL PORTS WITH OPPORTUNITIES FOR ECONOMIC GROWTH



Courtesy of TRANSNET



# Marine Transport and Manufacturing

# INITIATIVES

## 18 initiatives were recommended for MTM

### 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 centres 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

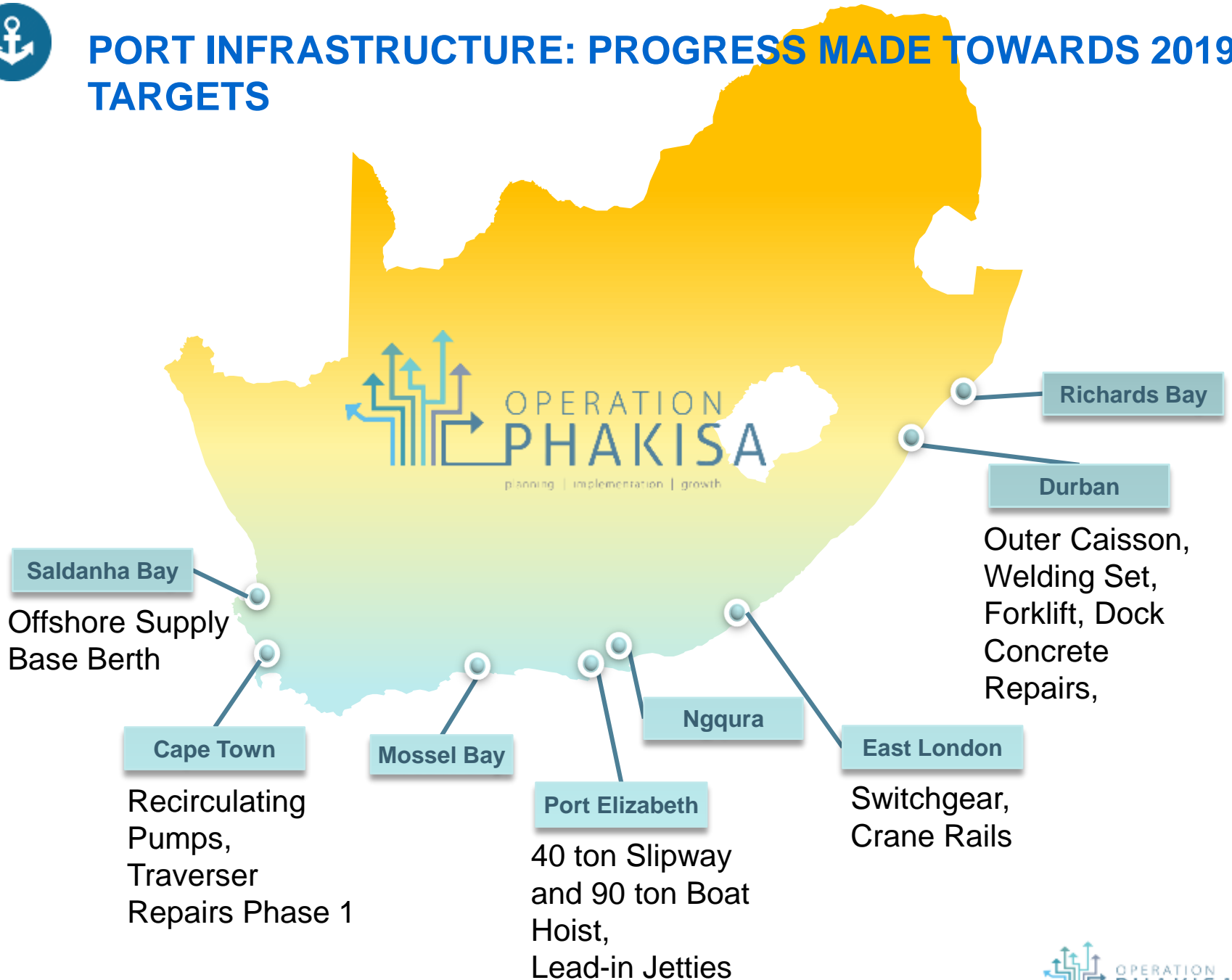
### C Market growth

- 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)





# PORT INFRASTRUCTURE: PROGRESS MADE TOWARDS 2019 TARGETS





**PORT OF CAPE TOWN**



**PORT OF EAST LONDON**



**PORT OF DURBAN DRY DOCK OUTER CAISSON**



# PORT OF PORT ELIZABETH



**NEW 90 TON BOAT HOIST**

**REFURBISHED  
SLIPWAY**

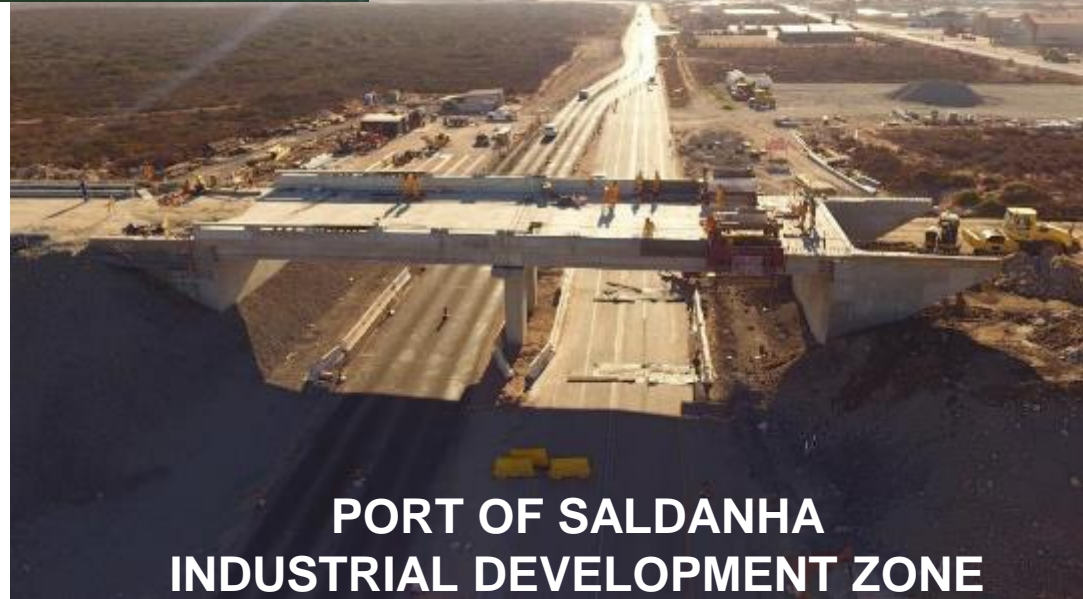
**REFURBISHED 1200 Ton  
LEAD-IN JETTIES**



# PORT OF SALDANHA – UPGRADE OF GENERAL MAINTENANCE QUAY



## PORT OF SALDANHA





## PORT OF SALDANHA – AQUACULTURE IN THE BAY





## MARINE TRANSPORT AND MANUFACTURING HIGHLIGHTS

Transnet National Ports Authority (TNPA) and Transnet SOC Limited Private Sector Participation (PSP) funding model - **investment opportunities of R7.3 billion for new port infrastructure.**

The Request for Proposal (RFP) for interested parties to design, develop and operate an **Offshore Supply Base at the Port of Saldanha (Initiative 2)** closed on 1 October 2016. Transnet appointed a preferred bidder and negotiations on the Facility Operator Agreement has commenced. The Saldanha Bay IDZ Lease Agreement with TNPA will be signed.

Three additional Expressions of Interest (EOI's) for the **New Berth 205 and the Extension of the Quay at Mossgas – Port of Saldanha Bay (Initiative 2)**, a Floating Dock representing flexible ship repair capacity at the **Port of Richards Bay (Initiative 7)** and a **boat building facility** at the **Port of East London (Initiative 8)** have been advertised on 01 June 2016. The EOI's closed on 2 August 2016 and bid evaluation has been completed. No clear takers for full private sector funded projects have emerged. Reworking of the offerings is underway to improve the bankability of these projects. Bidders signalled an appetite to utilise existing infrastructure for rig repairs (berth 204 and the current Mossgas Quay) and a possible floating dock in Saldanha until the oil and gas market recovers.

In refocusing Initiative 7 (a **Floating Dock in Richards Bay**), TNPA has committed to the dredging and infrastructure upgrades to the estimated value of R700m to prepare for the issuing of a concession for a Private Floating Dock.

# RICHARDS BAY INDUSTRIAL DEVELOPMENT ZONE CONSTRUCTION BY SMME







## MARINE TRANSPORT AND MANUFACTURING HIGHLIGHTS

TNPA has advertised an RFP for a suitable operator to design, fund, build and operate a **Liquid Bulk Terminal at Island View in the Port of Durban**. The tender was extended to 31 March, 2017.

Whereas the **dry dock cranes** were planned for refurbishment, technical studies concluded that they need to be replaced. Replacement of 10 cranes in Durban, 10 cranes in Cape Town and 4 cranes in East London requires R1.521bn. As per Initiative 6, TNPA will be seeking private funding in a revised Ship Repair Model which will also consider public-private-partnerships to address the effective working and funding of these businesses. The new model is being formulated. Dry Docks remain operational with existing functional cranes supplemented by mobile cranes.

TNPA is preparing to issue an RFP for the refurbishment and operation of the **Durban Floating Dock** by a private investor. This will incorporate stringent transformation elements. The estimated cost of refurbishment is in the order of R220m.

The **Comprehensive Maritime Transport Policy** was approved by Cabinet and launched in July 2017.





## MARINE TRANSPORT AND MANUFACTURING HIGHLIGHTS

TNPA awarded preferred bidder status to KwaZulu Cruise Terminal (Pty) Ltd to fund, build, operate and transfer the **Durban Cruise Terminal**.

The right to fund, build and operate the **Cape Town Cruise Terminal** has been awarded to the V&A Waterfront (Pty) Ltd.

The TNPA has officially released **Berth 204 at the Port of Saldahna Bay** to be utilised by oil rigs for repairs and maintenance as per the directive by the Oceans Economy. Despite aggressive marketing, there has been no demand for rig repair at this berth due to cutbacks in the oil exploration market.



**PORT OF CAPE TOWN – CRUISE TERMINAL**



## MARINE TRANSPORT AND MANUFACTURING HIGHLIGHTS

Construction on the development of the **Sunrise Energy Liquid Petroleum Gas (LPG) Facility in Saldanha Bay** has been completed and the Terminal is **operational**. Sunrise Energy received its first gas shipment during the week of 29th May, 2017.

**The Burgan Cape Liquid Fuels Facility in Cape Town** is operational.

TNPA and Oiltanking Grindrod Calulo Terminals has signed the Terminal Operator Agreement (concession) to fund, build, own, operate and transfer the new **Liquid Fuels Terminal at the Port of Ngqura**.



PORT OF NGQURA



## PORT OF DURBAN – DORMAC FLOATING DOCK SHIP REPAIR FACILITY

The Dormac ship-repair facility at the Port of Durban opened a composite Floating Dock at a cost of R290 million. The project creates more than 300 jobs. The launch of the floating dock comes at the back of support Dormac received from the DTI through the 12i Income Tax Incentive to the value of more than R160 million (May 2016).





## MARINE TRANSPORT AND MANUFACTURING HIGHLIGHTS

A total of **602 construction related jobs** have been created through five completed projects under initiative 5.

**Refurbishment of Existing Ship Repair Facilities:** The **Port of East London** has completed the Switchgear and Crane Rail projects at the Dry Dock. **Port of Port Elizabeth** completed the Lead-in Jetties at the Port of Port Elizabeth ahead of schedule. This adds to the completed projects list comprising the **Port of Durban** Outer Caisson, Concrete Repairs, Forklift and Welding Set, Boat Hoist and Repair Yard and the OSSB Berth, Crane Rails and the Electrical works at the Port of East London.

The supply of new equipment at the **Durban Shop 24 Workshop** valued at R23m has commenced.

The **Robinson Dock** Phase 1 Upgrade comprising concrete repairs, a security kiosk, fencing and lighting upgrades is in execution and expected to be completed in October, 2017.

The refurbishment of the **Durban Dry Dock Inner Caisson** as “big ticket” item has been advertised on Government’s eTender Portal.



# PORT OF DURBAN DRY DOCK CAISSON





## MARINE TRANSPORT AND MANUFACTURING HIGHLIGHTS

Work is progressing as planned on the Phakisa **Training Schools** at the Ports of Cape Town and East London. Specialised Phakisa Training programmes to up-skill from communities around the ports are at various levels of planning and implementation at all ports. Port of Durban currently has 24 Apprentices (Coded Welders and Millwrights) from surrounding communities in training at Transnet Engineering depots in Durban. Port of Mossel Bay is in the process of signing a MOU with PetroSA for Phakisa Technical Training.

**The Maritime Youth Development Programme (MYDP)**, which recruits unemployed young South African on international cruise liners has entered into an MOU with the Office of the Premier of the Eastern Cape to train 150 candidates from the OR Tambo and Buffalo City Municipalities. 50 successful candidates will go on-board between August and November 2017.

## PORT OF DURBAN – TRANSNET MARITIME SCHOOL OF EXCELLENCE







## MARINE TRANSPORT AND MANUFACTURING HIGHLIGHTS

TNPA is currently executing works at the **Port Nolloth small harbour and preplanning works at the Boegoebaai small harbour**. The Department of Public Works (DPW) will involve TNPA in discussions on Small Harbours development.

The **South African Oceans Economy value proposition booklet** has been published. The purpose of the booklet is to create awareness of South Africa's Oceans Economy. The boat building industry of South Africa is showcased.

The **New Business Development Department of the TNPA and Oceans Economy** are identifying new business opportunities in the maritime industry.







# MARINE TRANSPORT AND MANUFACTURING HIGHLIGHTS

**Manufacturing:** Tenders for new builds and five (5) tenders for maintenance work were advertised with the **60% local content requirement** included in the Requests for Proposals by procuring entities.

Six (6) of the nine (9) **harbour tugs** being built by Southern African Shipyards for TNPA have been delivered as follows: 2 for Port of Saldahna (Cormorant and Osprey); 2 for Port of Elizabeth (Mveso and Qunu); 1 for the Port of Richards Bay (Ukhozi); 1 Tug (Umbilo) for Port of Durban. The 7<sup>th</sup> Tug Usiba was launched into the water in August, 2017.

More than R700 million earmarked for the **Supplier Development Plan** entered into between Southern African Shipyards and Transnet's local suppliers, employees and graduates.



# PORT OF DURBAN – SOUTHERN AFRICAN SHIPYARDS TUGBOATS





## PORT OF DURBAN – SOUTHERN AFRICAN SHIPYARDS





## NAUTIC SHIP BUILDING, PORT OF CAPE TOWN







## MARINE TRANSPORT AND MANUFACTURING HIGHLIGHTS

**Tenders**, the granting of **Port leases** in terms of Section 79 of the National Ports Act, and shipbuilding infrastructure investments that had been approved under the **12i tax incentive**, have unlocked investment contracts in various Ports.

Four ships have now been registered on the **South African Ships Register**: Two bulk carriers are operating from Port of Port Elizabeth where the company established offices: the Cape Orchid; and the MT Lefkas, a bunker (ship fuelling) vessel, is owned by Greek shipping fleet group, Aegean; and will also be officially stationed at the Port of Port Elizabeth, to supply fuel at sea to vessels sailing along Africa's southern oceans; and a fourth vessel, a 24 500 GT (Gross Tonnage) oil tanker operating from the Port of Cape Town. Incentives are provided to attract vessels to re-flag as South African vessels.

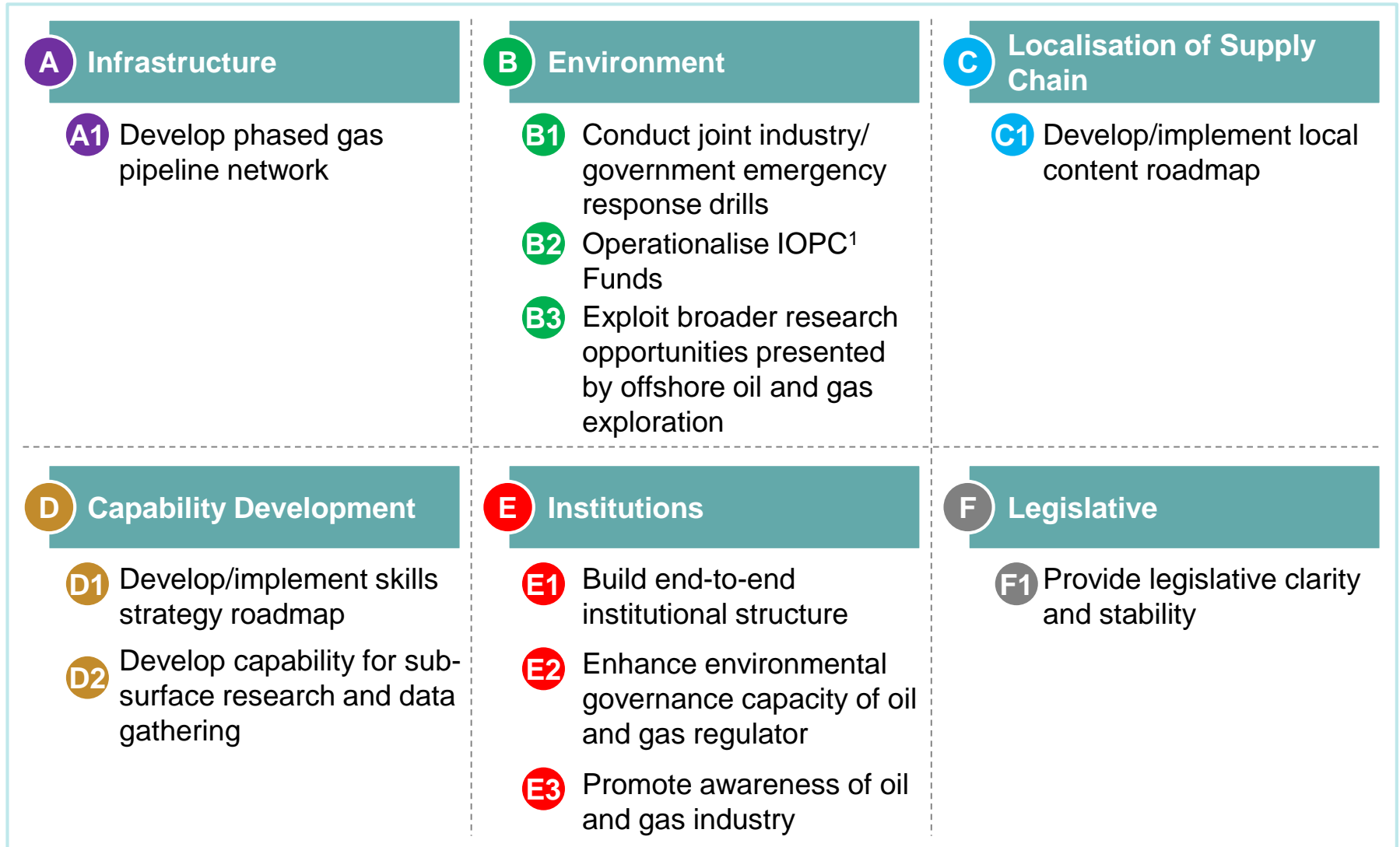




# Offshore Oil and Gas

# INITIATIVES

## 11 initiatives have been identified for offshore oil and gas exploration



<sup>1</sup> Internal Oil Pollution Compensation

# OFFSHORE OIL AND GAS EXPLORATION HIGHLIGHTS

## ***A1: Development of Phased Gas Pipeline Network***

- Pre SEA preparatory work is complete.

## ***B1: Joint Industry Government Emergency Response Drills***

- Endorsement of the Establishment of Incident Management Organisation (IMO) by the previous IMC meeting.
- A strategy with timeframes has been finalised.
- Letters of accountability have been circulated to various stakeholders for signature.
- Launch to take place before the end of 2017.

## ***B2: Operationalise the International Oil Pollution Compensation (IOPC) Fund***

- The IOPC has been operationalized.

## ***B3: Exploiting Broader Marine Research Opportunities presented by Offshore Oil and Gas Exploration***

- Development of a workplan is in progress.

## ***D1: Develop Collaborative Skills Strategy Roadmap***

- Planned establishment of an Offshore Oil and Gas Research Chair.

## ***E1: Build end-to-end institutional structure***

- PASA migration to DMR consistent with Lab recommendations.





# OFFSHORE OIL & GAS - POTENTIAL

## PETROLEUM EXPLORATION AND PRODUCTION ACTIVITIES IN SOUTH AFRICA



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.



## OFFSHORE OIL AND GAS EXPLORATION HIGHLIGHTS

The Department of Environmental Affairs, Department of Energy and Department of Public Enterprises have entered into a **co-funding agreement to fund the Strategic Environmental Assessment for the phased gas pipeline network.**

The Department of Mineral Resources issued 14 Exploration Rights (1 is held by a company that is 100% owned by PDI); **6 Production Rights**, (1 has 10% PDI participation); and **2 Technical Co-operation Permits** (2 are held by companies that are 100% owned by PDI).

The Department of Energy has issued a Ministerial Determination for gas IPP (Independent Power Producers).

**Joint industry-government emergency response team and the Incident Management Organisation (IMO) established.**

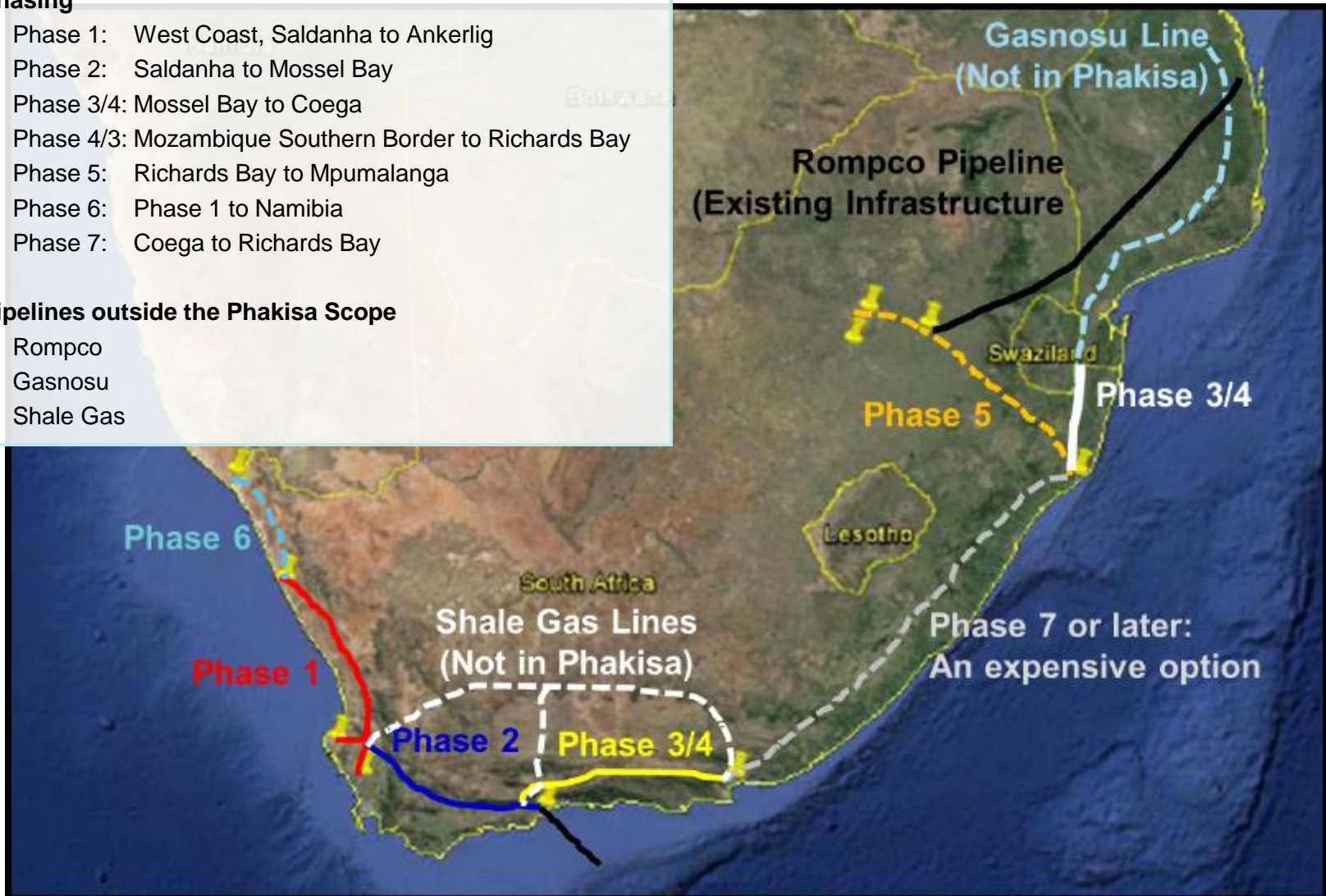
# CEF GROUP-ESKOM-TRANSNET AGREED PHASING OF THE GAS PIPELINE NETWORK IN SOUTH AFRICA TO ATTRACT OFFSHORE EXPLORATION

## Phasing

- Phase 1: West Coast, Saldanha to Ankerlig
- Phase 2: Saldanha to Mossel Bay
- Phase 3/4: Mossel Bay to Coega
- Phase 4/3: Mozambique Southern Border to Richards Bay
- Phase 5: Richards Bay to Mpumalanga
- Phase 6: Phase 1 to Namibia
- Phase 7: Coega to Richards Bay

## Pipelines outside the Phakisa Scope

- Rompco
- Gasnosu
- Shale Gas



In the light of the above the gas transmission pipelines planning will, in a phased way enable gas to the industrial centres.





## OFFSHORE OIL AND GAS EXPLORATION HIGHLIGHTS

Unlocking New Investments: The construction of the **Burgan Fuel Storage Facility** in the Port of Cape Town launched - 350 construction jobs.

**The International Oil Pollution Compensation (IOPC) Fund** arrears paid by the Department of Transport and now operational.

The Minister of Science and Technology signed an MOU with the oil and gas industry on 29 January 2016 - **South African Marine Research and Exploration Forum**.

Finalisation of the **Mineral Petroleum Resources Development Amendment Bill** before Parliament, will increase investor confidence in the oil and gas sector.



## PORT OF CAPE TOWN – BURGAN FUEL STORAGE FACILITY

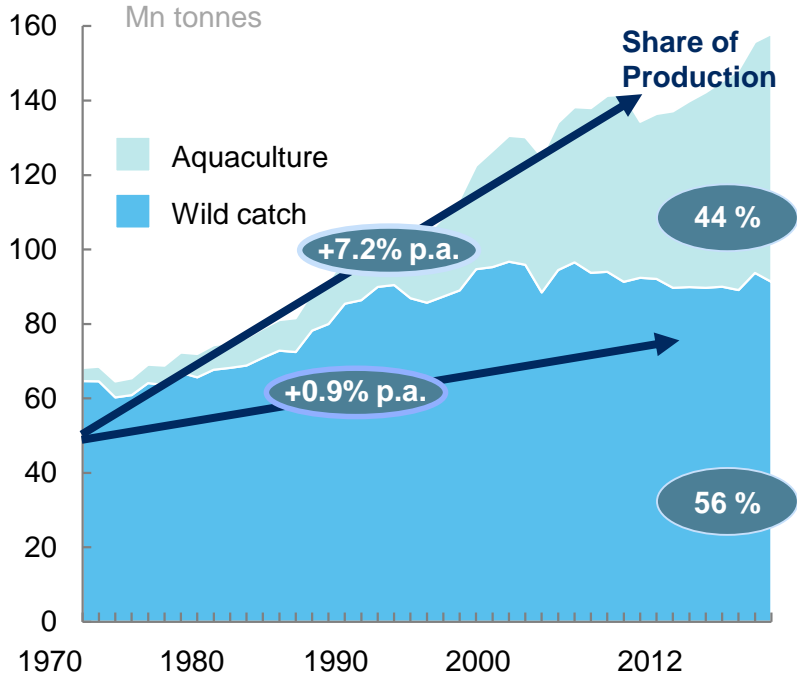




# Aquaculture

## **GLOBALLY, AQUACULTURE CONTRIBUTES TO ALMOST HALF OF TOTAL SUPPLY OF FISH**

## Global total fish production – wild catch and farmed (reported)



- Aquaculture production has shown strong growth of 7.2% p.a. from 1970 to 2012.
- Of the 141 million tonnes of fish consumed, over 70 million tonnes come from aquaculture which about 50%
- An additional 50 million tonnes of fish is required to feed the world population by 2030 and this production will come mainly from aquaculture

## Factors influencing supply

## Supplementing wild capture within maximum sustainable yields

- The need to employ sustainable fishing methods has become more important due to dwindling stocks of certain species
- FAO has classified most wild fisheries as either fully exploited or over exploited
- Increasing demand for fish products

**Better  
technologies  
and production  
methods**

- New technologies and breeds e.g. RAS system and GIFT strain for tilapia has enabled better yields and lower long term input costs
- Higher stocking capacity for shrimps which allows for higher yield
- Investment in research and development

## Food Security

- Governments have a responsibility to ensure that everyone has enough to eat.
- Food needs to be available, accessible and affordable through a resilient and reliable supply system
- Fish is regarded as an essential part of a healthy and nutritious diet



# THE SECTOR ASPIRATION TO CATALYSE GROWTH

## HEADLINES 2019: SA economy reaps the rewards of Operation Phakisa

“...to Aquaculture in South African has shown strong growth in 5 years, with **production from 2014 up 5 fold to 20,000 tonnes...**”

“...The Aquaculture sector in South Africa now **employs 15,000 people in direct and full time jobs.....**”

“Jobs in Aquaculture sector seen as **quality jobs, improving livelihoods in rural communities....**”

“...experts estimate the **revenue contributed by Aquaculture** to South Africa's economy **to be as much as R 3 Bn...**”

“...exciting momentum built in Operation Phakisa evidenced by **Aquaculture's inclusive growth...**”



**Abalone**



**Oyster**



**Mussels**



**Finfish**



# AQUACULTURE OPERATION PHAKISA INITIATIVES DEVELOPED DURING THE LAB (OCTOBER 2014)

1

**Selection and Implementation of Catalyst Projects**



2

**Legislative reform**

3

**Inter-Departmental Authorisations Committee**

4

**Globally recognised monitoring and certification system**

**Regulations**



5

**Aquaculture Development Fund**

**Funding**



6

**Capacity building and skills development**

**Skills**



7

**Coordinated industry-wide marketing efforts**

8

**Government Preferential Procurement**

**Market**





# AQUACULTURE HIGH LEVEL IMPACTS

Total investment committed to Operation Phakisa Aquaculture Projects is R690 million, of which government committed R227 million

- Total jobs sustained and created across Operation Phakisa projects in 2016 is 1806 (47% Youth, 60% African black, 29% Female)
- Operational Phakisa Projects Annual Production: 3500 tons

## INITIATIVE 1: SELECTION AND IMPLEMENTATION OF CATALYST PROJECTS

- Total Phakisa Aquaculture Projects = 36
- 26 of the 36 projects are in production phase at the end of 2016, at least 15 of these projects are considered SMME's.
- Five (5) of the original 24 projects have been removed and placed onto business opportunities.
- New Projects: Seventeen (17) projects were accepted.



# LOCATION AND SPECIES OF 24 ORIGINAL AQUACULTURE PROJECTS

## HONDEKLIP BAY

- New farm: DCA Ranching
- Expansion of DST Abalone Hatchery

- ★ Phase 1 (6-12 months implementation)
- Phase 2 (12-24 months Implementation)
- Phase 3 (2-4 years implementation)

SMME's (15+)

## RICHARDSBAY

- New farm: Richards Bay Sea Cage Farming

## AMATIKULU

- ★ Expansion of Amatikulu ornamentals
- New Farm: Amatikulu Kob (ADZ)

## HAGA

- ★ Expansion: Wild Coast Abalone Farm

## HAMBURG

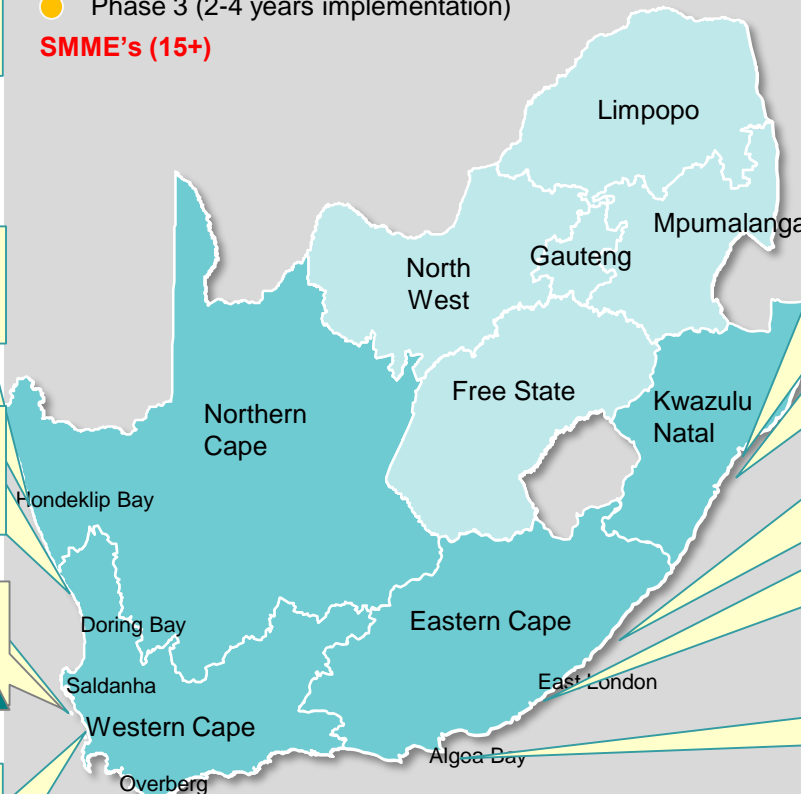
- ★ Expansion of Hamburg Oyster farm
- New farm: Hamburg Kob

## PORT ELIZABETH

- New: Wild Coast Abalone Ranching

## OVERBERG

- ★ Expansion of Roman Bay
- ★ Expansion of Abagold
- Expansion of Marine Growers
- ★ Expansion of HIK Abalone



Coastal provinces  
Inland Provinces

## DORING BAAI

- Expansion of Doring Bay Abalone

## PATERNOSTER

- ★ Expansion of Paternoster hatchery

## JACOBSBAAI

- Expansion: Jacobsbaai Sea Products

## SALDANHA BAY

- New farm: Molapong Cages
- Expansion of Blue Ocean Mussels
- Expansion of Saldanha Bay Oyster

5 projects removed, placed onto business opportunities

Ventersdorp Catfish, ADZ Ventersdorp, Algoa Bay Yellowtail, Oceanwise ELIDZ and Southern Atlantic



# LOCATION AND SPECIES OF 17 NEW AQUACULTURE PROJECTS SINCE 2014

## KLEINZEE



● Exp: Really Useful Investments

## SALDANHA

- Exp: Blue Sapphire Pearls
- Exp: Imbaza Mussels
- Exp: African Olive Trading
- Exp: Aqua Foods SA
- New: Requa Mussels
- New: Chapmans Mussels
- New: Xesibe
- Exp: Salmar Trading
- New: Oystercatcher
- New: Southern Atlantic Sea farms
- Exp: West Coast Oyster Growers
- Exp: West Coast Aqua



Phase 1

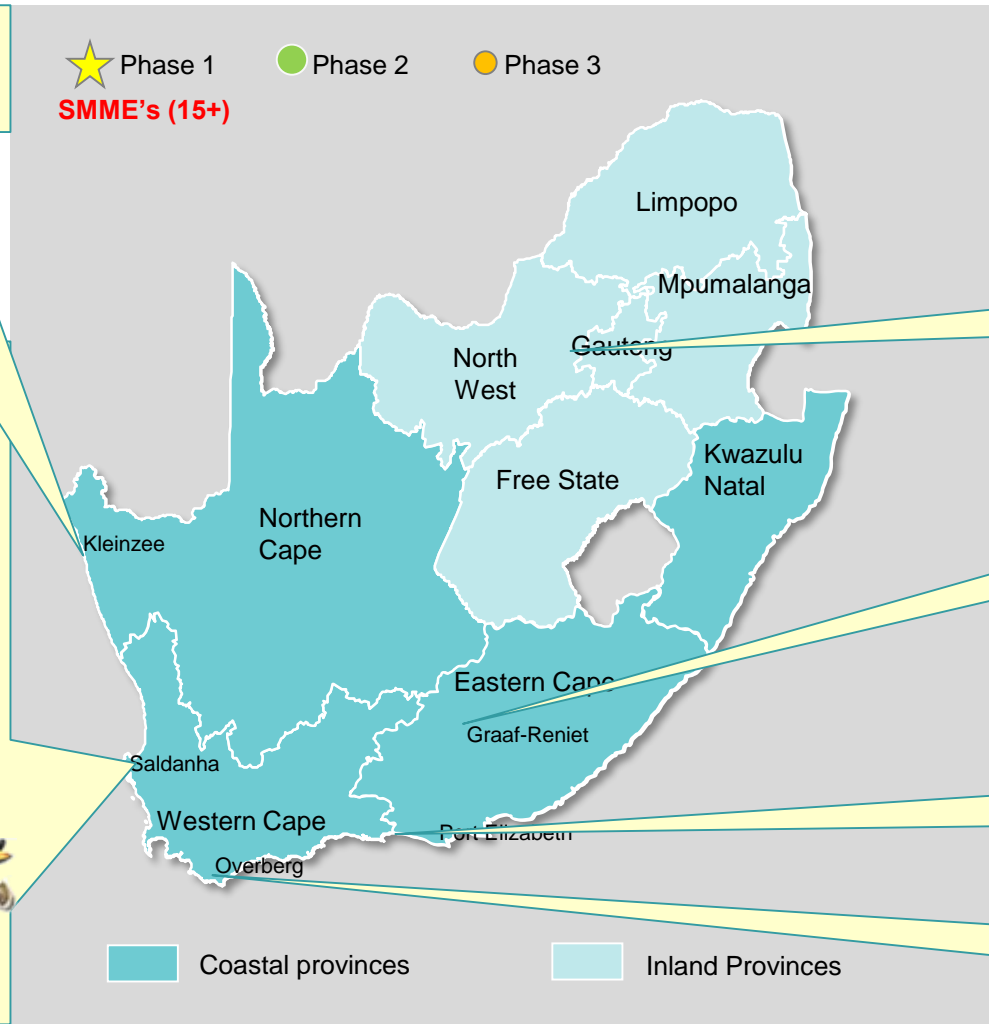


Phase 2



Phase 3

**SMME's (15+)**



## GAUTENG



● New: Vaal (tilapia)

## GRAAF RENIET



● Exp: Karoo Catch

## PORT ELIZABETH



● Exp: Zwembesi (oyster)

## HERMANUS

● New: Hermanus Salmon



Coastal provinces



Inland Provinces



## AQUACULTURE PROJECT HIGHLIGHTS

- Twenty Two (22) tons of the first farmed and market size dusky kob in July 2017 from trial cages of the DST Stellenbosch University Project in Richards Bay, KZN.





## AQUACULTURE PROJECT HIGHLIGHTS

- New mussel factory opened in Veldrift by a level 1 BEE Operation Phakisa project and employment of additional 47 people which will increase as production increases.







## AQUACULTURE PROJECT HIGHLIGHTS

In the Eastern Cape, the Hamburg Community Project employs 23 people with the capacity to produce 20 tons of dusky kob per annum and has already sold its first harvest to the Cape Town Fish Market at the V&A Waterfront in Cape Town.



Monitoring of kob at Hamburg



Workers from the Siyazama Cooperative



Abalone ranching underway



Growing abalone seeded through ranching

The abalone ranching project in the Eastern Cape seeded 1, 8 million spat along 20 kms of the coast. This represented a potential economic value of R26 million to South Africa.



## AQUACULTURE PROJECT HIGHLIGHTS

First ocean trout and salmon project has 50 000 fish in the cage and plans to grow the fish to 2-3 kg each by end of 2017



Molapong ocean trout harvested and the packaged fillet



Another project in the province was approved as an exporter to both Mainland China and Taiwan for oysters.



## INITIATIVE 2: LEGISLATIVE REFORM

- The **Aquaculture Development Bill** was signed off by the National Economic Development and Labour Council (NEDLAC). The Bill is due to be presented at Cabinet in early 2018.
- **Aquaculture Strategic Environmental Assessment**  
Suitable areas have been screened and reviewed by key stakeholders through consultative workshops. Once the project is completed the areas deemed suitable for aquaculture development will require limited/no further environmental studies thus encouraging investments.







## AQUACULTURE HIGHLIGHTS

### INITIATIVE 3: INTER-DEPARTMENTAL AUTHORISATIONS COMMITTEE (IAC)

- Four Environmental Impact Assessments (EIA) approved.
- Four coastal discharge permits were issued.
- Three biodiversity risk assessments completed (Barramundi, Coho and King Salmon).
- Six marine aquaculture Permits/Rights issued or amended.
- Permits to undertake the pilot trout project in Vanderkloof Dam in the Northern Cape has been issued.
- All relevant approvals/plans have been for the Qolora Aquaculture Development Zone.
- DAFF is currently undertaking Environmental Impact Assessments to create an enabling environment and facilitate investment for:
  - ✓ Saldanha Bay Aquaculture Development Zone (ADZ);
  - ✓ Algoa Bay ADZ;
  - ✓ Amatikulu.

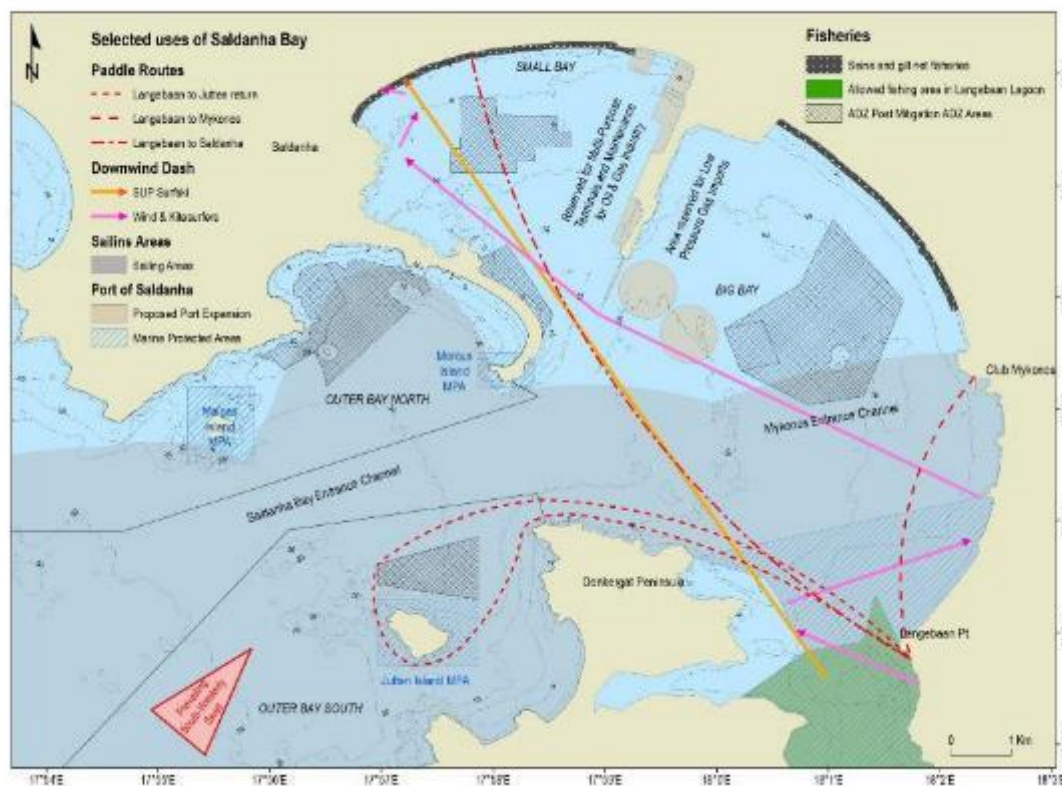


# SALDANHA BAY AQUACULTURE DEVELOPMENT ZONE EIA

\* FINAL Basic Assessment Report submitted to DEA for consideration September 2017

## Potential Benefits:

- The ADZ has the potential to unlock an additional of 780- 2500 direct jobs, over R400 million investments and over R800 million turn-over per annum.
- Direct jobs could contribute up to 25% to current unemployment figures and further upstream and downstream jobs will increase this.
- Realising the full potential of the aquaculture industry in Saldanha Bay can contribute towards alleviating poverty, empowerment and enhancing food security through access for new projects. This assists the growth and transformation of the sector.





# AQUACULTURE HIGHLIGHTS

## INITIATIVE 4: GLOBALLY RECOGNISED MONITORING AND CERTIFICATION SYSTEM



- The first **Aquatic Animal Health and Welfare Implementation Plan** in South Africa was developed and implemented.
- To ensure local and international food safety requirements for live and chilled raw mussels and oysters, the standard was published in accordance with the **SANS Institute Code 2879**.
- Establishment of a **Globally Recognised Monitoring and Certification System**: The DAFF and National Regulator for Compulsory Specifications (NRCS) entered into an Agreement to undertake independent water quality sampling.
- The European Union (EU) Residues and Public Health Audit audited the aquaculture sector in February 2017. Various interventions were identified during the visit which may ultimately lead to South Africa being able to apply to be registered to export abalone and finfish to the EU.





# AQUACULTURE HIGHLIGHTS

## INITIATIVE 5: AQUACULTURE DEVELOPMENT FUND

- Aquaculture Development Fund (ADF) Working Group established and made up of key Development Funding Institutions (DFI's), is considering funding applications, and a memorandum of understanding between funding departments and institutions to be finalised.
- The first national financial feasibility studies have been conducted on key aquaculture species (shellfish and marine finfish) to inform private and government investment as well as incentives and policy interventions. Further feasibility studies are currently underway for abalone, catfish, Tilapia, trout, catfish, marron, marine and freshwater ornamentals.
- Investment promotion missions were undertaken where awareness was raised of the South African aquaculture market offering.





## AQUACULTURE HIGHLIGHTS

### INITIATIVE 6: CAPACITY BUILDING AND SKILLS DEVELOPMENT FOR SUPPORT SERVICES

- In order to address the scarce aquatic veterinarian skills and services available in South Africa, an agreement has been signed with Sterling University to train veterinarians and the initial group of five were enrolled on the 11<sup>th</sup> of September 2017.
- A skills and needs analysis assessment of the sector is currently underway to inform further interventions and skills requirements
- The Gariep Dam Aquaculture Training Centre which has officially been handed over to South Africa in June 2017 and the Centre offers aquaculture training to government officials, farmers and students.





# AQUACULTURE HIGHLIGHTS

## INITIATIVE 7: COORDINATED INDUSTRY-WIDE MARKETING EFFORTS

- Product development includes: Catfish boerewors by Karoo Catch, available at Spar Supermarket.
- Various industry associations were engaged to undertake joint market access and research; market and product development and consumer and public awareness initiatives.
- The Aquaculture Operation Phakisa Year Two Review publication and Aquaculture Photobook have been published to raise awareness on the progress in the second year of implementation and showcase the operations of 13 farms.
- Interest was received from Iran to supply 500 tons per month of Tilapia. Taiwan has also expressed interest to source oysters from SA.
- Free-State Economic Development Agency has indicated interest in procuring products from aquaculture farms.







# PHAKISA AQUACULTURE PROJECTS

Romansbay (Aquinion) Abalone, Western Cape



Marine Growers (Abalone), Western Cape



HIK Buffeljags (Abalone), Western Cape



Really Useful Investments (Abalone), Northern Cape





# PHAKISA AQUACULTURE PROJECTS

Southern Atlantic Sea Farms (Mussels),  
Western Cape



Diamond Coast Abalone Ranching,  
Hondeklip Bay, Northern Cape



Abagold (Abalone), Hermanus, Western Cape







# PHAKISA AQUACULTURE PROJECTS

African Olive Trading (Mussels),  
Western Cape



Doring Bay Abalone, Western Cape



Hondeklip Bay (Abalone), Northern Cape



Imbaza (Mussels), Western Cape







# PHAKISA AQUACULTURE PROJECTS



Blue Oceans Mussels, Western Cape



Blue Sapphire Pearls (Oysters), Western Cape



West Coast Oyster Growers (Mussels and Oysters), Western Cape



# **Marine Protection Services and Ocean Governance**

## 10 key initiatives have been proposed to achieve these targets

### Integrated Ocean Governance and Protection

#### Integrated framework and governance



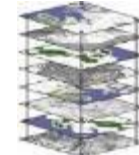
- 1 Ministerial Committee and Secretariat to govern activities
- 2 Enhancement of legislation for the Integrated Coastal and Oceans Management Act or Oceans Act
- 3 Review of ocean-related legislation
- 4 Accelerated capacity-building intervention in ocean governance

#### 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)

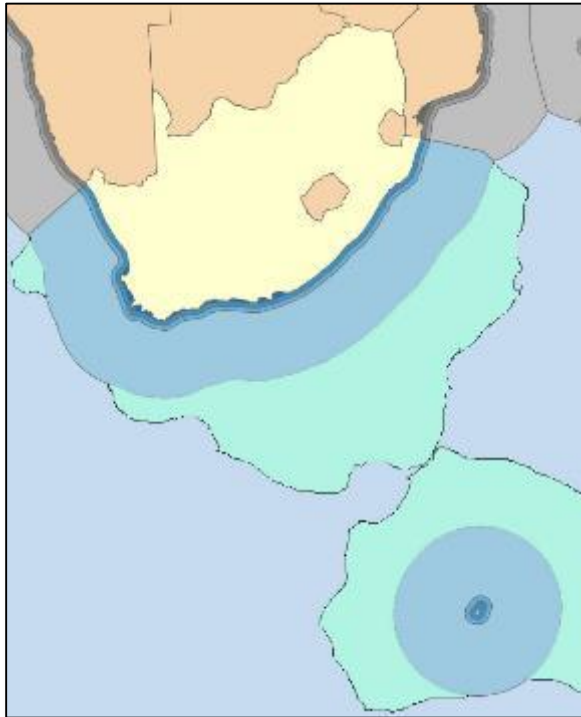


- 10 Marine Spatial Planning (MSP) process





# MARINE PROTECTION AND OCEAN GOVERNANCE BACKGROUND



- Land Mass
- EEZ
- Extended Continental Shelf Claim

South Africa is responsible for managing an oceans space that is greater than the land territory

Extended continental shelf claim will double the size of the ocean geographic extent

Land Size:

**1.2 million km<sup>2</sup>**

Exclusive Economic Zone (EEZ) Size:

**1.5 million km<sup>2</sup>**





# MARINE PROTECTION AND OCEAN GOVERNANCE HIGHLIGHTS

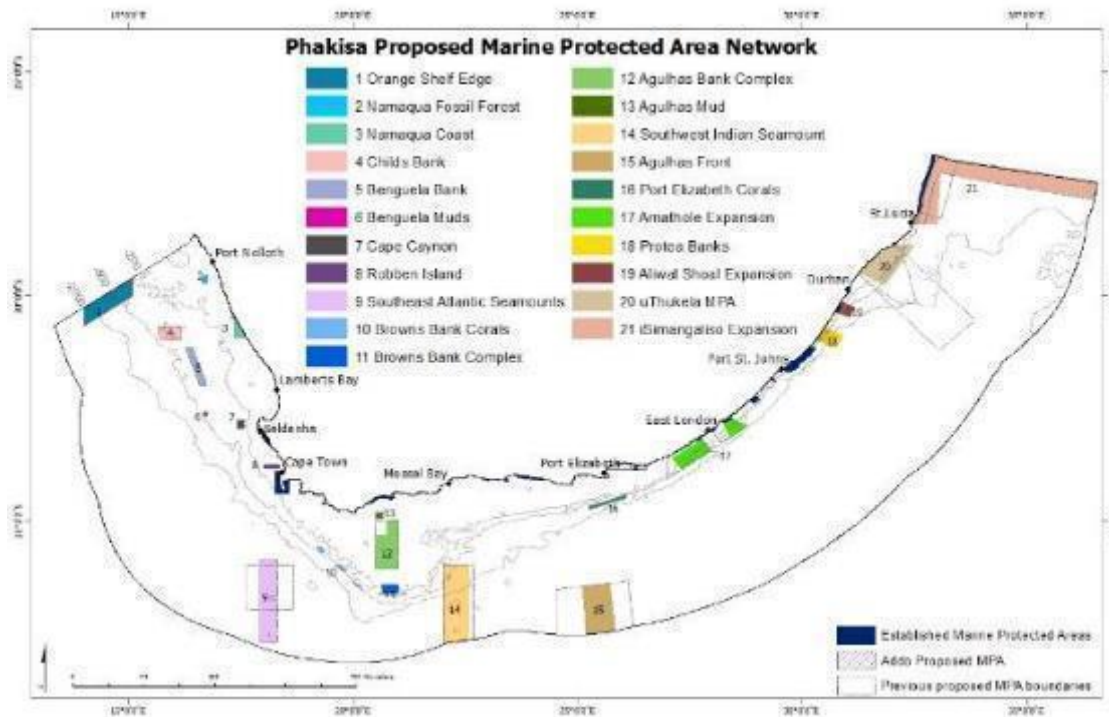
## OCEAN PROTECTION





# MARINE PROTECTION AND OCEAN GOVERNANCE

## OCEAN PROTECTION: PROGRESS



\*\* Boundaries adjusted in lab as a result of consultations



### Creation of a **Marine Protected Area (MPA) representative network**:

Interdepartmental engagements on the published draft notice and regulations with regard to MPA boundaries and zonation (activities within MPAs) have been completed. The following recommendations have been decided upon for implementation: After considering the comments the 22 MPA, the network was reduced to 18 MPAs. The 18 MPAs are envisaged to cover at least 4.4%, which is 0.6% short of the Operation Phakisa: Oceans Economy target (5%).

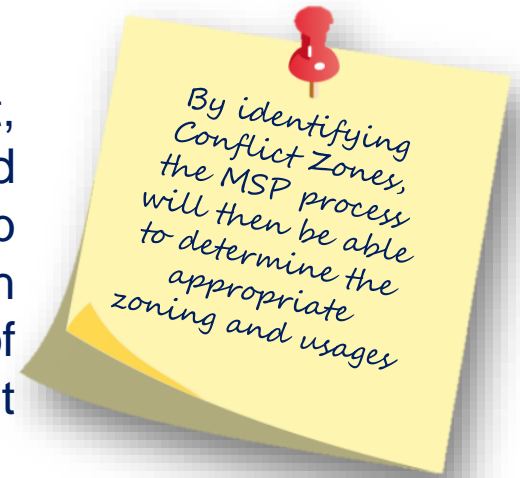




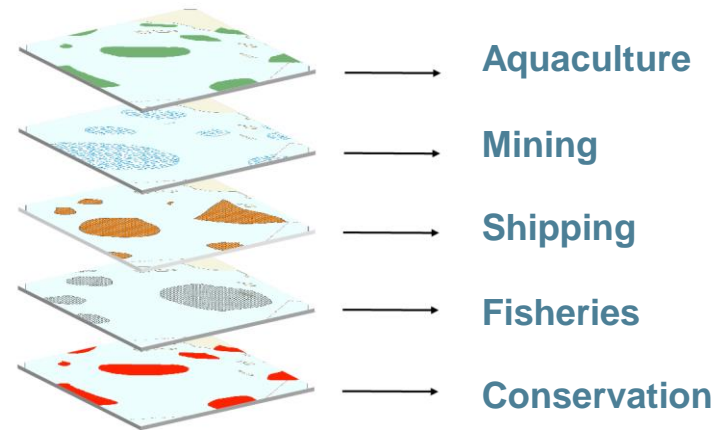
# MARINE PROTECTION AND OCEAN GOVERNANCE

## OCEAN PROTECTION: PROGRESS

Absence of an overall system to guide the development, implementation, monitoring and refinement of National and Regional Marine Spatial Planning Framework's and Sub Regional Marine Spatial Management Plan's in South Africa, potentially leading to conflict, unsustainable use of ocean resources and failing to capitalise on development opportunities.



The **draft Marine Spatial Planning (MSP) Bill** seeks to create a marine spatial planning system that promotes economic growth and is facilitated by coordinated planning across multiple sectors. Consultation concluded and the Bill is currently undergoing the Parliamentary process.



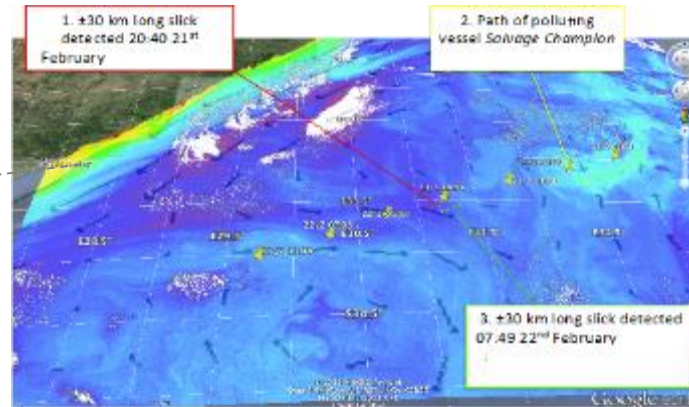
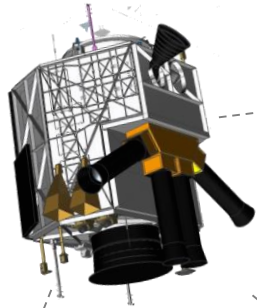
**Marine Spatial Planning Framework** has been approved by the Minister and gazetted on 26 May 2017.

The **National Pollution Laboratory (NPL)** has been established, hosted and operated by the Walter Sisulu University (WSU) Mthatha Campus.

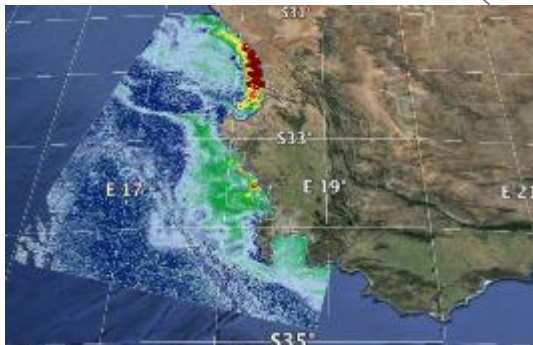


# MARINE PROTECTION AND OCEAN GOVERNANCE

## OCEAN PROTECTION



Oil Slick Detection and Monitoring



Harmful algae bloom detection which may affect human health

As part of the Coastal Surveillance initiatives, one of the quick wins will leverage on existing technologies owned by CSIR, SANSA and SAMSA\*

**Current SA technologies can potentially determine the source of pollution** by combining SAMSA's ship tracking technologies and also determine if necessary interventions will be required, based on ocean current monitoring via CSIR and SANSA technologies.

Effective monitoring and use of integrated Decision Support Tools may potentially save on expensive deployments if the situation does not require them.

\* CSIR: Council for Scientific and Industrial Research

SANSA: South African National Space Agency  
SAMSA: South African Maritime Safety Authority



# MARINE PROTECTION AND OCEAN GOVERNANCE

## OCEAN PROTECTION

**National Ocean and Coastal Information System (OCIMS) and extending earth observation capacity:** With the system fast advancing and being used in some initiatives (i.e. Initiative 5) the security of the data, the system and its potential users is currently a priority task.



environmental affairs  
Department:  
Environmental Affairs  
REPUBLIC OF SOUTH AFRICA



science  
& technology  
Department:  
Science and Technology  
REPUBLIC OF SOUTH AFRICA

# NATIONAL OCIMS

National Oceans and Coastal  
Information Management System

Unlocking the potential of South Africa's oceans and coasts through information and decision-support.

MORE ABOUT NATIONAL OCIMS

HOME

ABOUT

DOCUMENTS

DATA

TOOLS

### WHAT IS THE NATIONAL OCEANS AND COASTAL INFORMATION MANAGEMENT SYSTEM

The National Oceans and Coastal Information Management System (National OCIMS) is a locally relevant and globally cognisant technological solution that supports the ecological conservation and economic potential of South Africa's oceans and coasts through

### DECISION SUPPORT TOOLS







# MARINE PROTECTION AND OCEAN GOVERNANCE

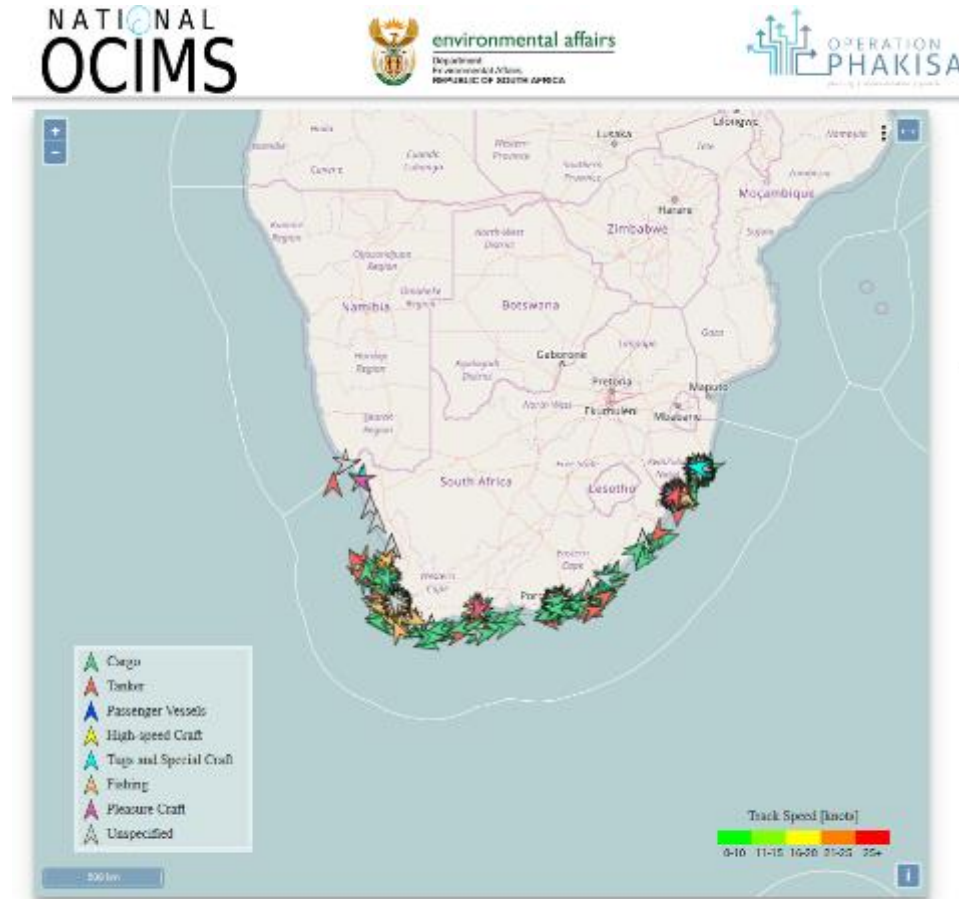
## OCEAN PROTECTION

**Decision Support Tools (DeST)** will include:

- Integrated Vessel Tracking
- Harmful Algal Blooms and Crayfish Walkouts
- Sea Level Rise and Storm Impact
- Marine Spatial Planning (MSP)
- Water Quality
- Bilge Dump Detection and Oil Spill Tracking

### The Harmful Algal Bloom HAB

**DeST:** Critically the HAB DeST will allow early warnings for potential threats (e.g. red tides) in the Aquaculture and Rock Lobster industries.



### Vessel Tracking



# MARINE PROTECTION AND OCEAN GOVERNANCE HIGHLIGHTS

## OCEAN PROTECTION

The **enhanced coordinated enforcement programme** under the Oceans Economy Compliance and Enforcement Working Group has been completed and the Security Cluster (**National Joint Operational and Intelligence Structure**) engaged, resulting in a reduction in illegal activities and enhanced safety and security in the Oceans Economy space.



### Enforcement functions

- Non-consumptive activity, e.g. whale watching and white shark cage diving
- Marine protected species (seals, seabirds, turtles, penguins etc.)
- MPAs
- Illegal fishing
- Pollution prevention and combatting
- Piracy
- Human trafficking
- Effluence discharge (contaminated water)
- Dumping at sea (waste)
- Customs/excise/sanitary rules
- Ballast water invasive species





## **Coastal and Marine Tourism**



# INITIATIVES

**Six initiatives were identified for the Coastal and Marine Tourism Focus area as well as a set of initial pre-Lab targets:**

## **Phase I: Initial Short-term targets**

*First results by March 2017*

- ✓  Implementation of the Blue Flag Ambassador Programme
- ✓  Promotion of Blue Flag as a tourist attraction (marketing)
- ✓  Provision of visitor information services

## **Phase II: Medium term**

*First results by March 2019*

-  Marketing, Events and Routes;
-  Regulations and Permitting;
-  Research and Spatial Planning;
-  Beach Precinct Development, Tourism Infrastructure and
-  Tourism Safety;
-  Maritime Tourism; and Skills development.



# COASTAL AND MARINE TOURISM HIGHLIGHTS

## COASTAL AND MARINE TOURISM



**Potential GDP contribution of R21,4 billion  
Creating 116 000 jobs by 2026**

**The Coastal and Marine Tourism Implementation Plan was approved by Cabinet in August 2017.**

This plan contains **integrated projects on tourism with creative industries and cultural heritage**. Opportunities include enterprise development such as local supplier development (arts and craft and beach front business), access to markets, skills development, improved infrastructure, training facility and tidal pool (Port St Johns).

## COASTAL AND MARINE TOURISM LAB ASPIRATIONS



**To grow a world class and sustainable coastal and marine tourism destination that leverages South Africa's competitive advantages in nature, culture and heritage.**



# COASTAL AND MARINE TOURISM NODAL / CLUSTER APPROACH

The **Coastal and Marine Tourism Plan** will be implemented in **nodal/cluster approach** which is strategic to tourism development and entails the following:

- prioritises destinations and not individual tourism projects/products;
- supports the enhancement of the general environment in which attractions and products are located; and
- strengthens the linkages between attractions and improves the quality of the tourist experience within destinations.

**The identified nodes/clusters in the First Phase** (0 - 5 years) encompass the following geographic areas:

Node 1: Durban and surrounds (KwaZulu-Natal);

Node 2: Umkhanyakude District including Umhlabuyalingana and surrounds (KwaZulu-Natal);

Node 3: Port St Johns to Coffee Bay (Eastern Cape);

Node 4: East London, Port Elizabeth and surrounds (Eastern Cape);

Node 5: Cape Town and surrounds (Western Cape); and

Node 6: West Coast and surrounds (Northern Cape).





# THE LAB DEFINED INFRASTRUCTURAL DEVELOPMENTS AND APPLIED THE FOLLOWING CRITERIA TO FURTHER SHORTLIST PROJECTS

## Definition

Infrastructural developments were defined as projects that had big infrastructure investment, advanced project planning and have great potential to contribute to CMT growth for South Africa, but are experiencing some challenges that could be unlocked through the CMT Phakisa Lab

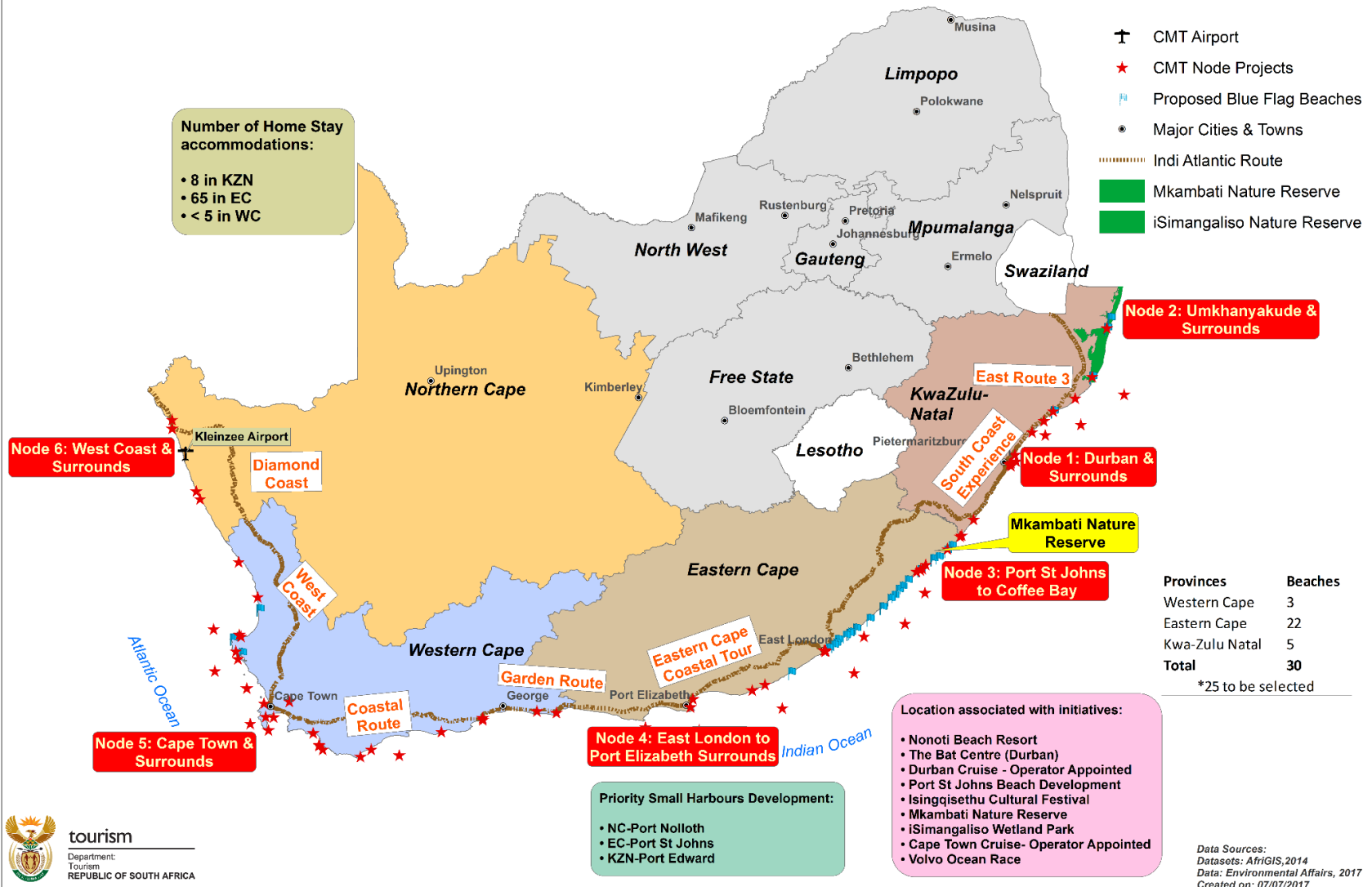
## Criteria

- |  |  |
|--|--|
| <b>1 Project stage</b>                           | Have ready plans, feasibility studies done, land secured   |
| <b>2 Investment and financial considerations</b> | Projects have estimates of required funding, potential to attract investments, job creation, project timelines |
| <b>3 Infrastructural considerations</b>          | Shortlisted projects will have existing infrastructure with supportive infrastructural requirements clear      |
| <b>4 Marketing considerations</b>                | The target customer segment is clear, diversity of experience is present and evidence of success elsewhere     |
| <b>5 Skills building and transformation</b>      | Shortlisted projects will target skill gaps and benefits to historically disadvantaged individuals             |
| <b>6 Synergy with other projects</b>             | The projects will have synergies with existent laws, strategies and development plans                          |
| <b>7 Safety and security considerations</b>      | Safety and security of potential visitors is ensured, preferably international safety accreditation obtainable |



# KEY COASTAL AND MARINE TOURISM NODES

## Key Coastal & Marine Tourism Nodes





# TOURISM INTEGRATION WITH OTHER AREAS

## Tourism Integration With Other Areas

### Priority Environmental Affairs Projects: Boat Based Whale Watching

- Richards Bay
- St Lucia
- Sodwana Bay
- Durban
- Shelly Beach
- Port Elizabeth
- Cape St Francis
- Kenton on Sea
- Port Alfred
- East London

- White Shark Cage Diving
- Port Elizabeth
  - False Bay
  - Gansbaai
  - Quoin Point
  - Mossel Bay

### Priority Transport Projects:

- NC-Kleinsee Airport
- KZN-Durban Cruise Terminal
- WC- Cape Town Cruise Terminal

### Priority Aquaculture Projects:

- Hondeklip Bay
- Doring Baai
- Paternoster
- Jacobsbaai
- Saldanha Bay
- Port Elizabeth
- Overberg
- Hamburg
- Haga-Haga
- Amatikulu
- Richards Bay

### Node 6: West Coast & Surrounds

### Node 2: Umkhanyakude & Surrounds

### Node 1: Durban & Surrounds

### Node 3: Port St Johns to Coffee Bay

### Node 5: Cape Town & Surrounds

### Node 4: East London to Port Elizabeth Surrounds

### CMT Integrated Projects

#### Project Type

- Aquaculture
- Arts and Culture
- Environmental Affairs
- Public Works
- Transport
- CMT Airport

### Priority Arts and Culture Projects:

- KZN-Bat Centre
- KZN-Africa Fashion Expo
- EC-Port St Johns Beach Water Front Development
- EC-Isingqisethu Wild Coast Cultural Festival
- EC-East London Esplanade and Aquarium





## COASTAL AND MARINE TOURISM HIGHLIGHTS

**Unblocking legislative constraints** for Nonoti Beach Resort and Mkambati Nature Reserve: Opportunities include local supplier development (fresh fish, fresh produce, community owned tourist camps, charcoal business, transport business, horse trails at Mkambati).

Permitting and licences for **boat based whale watching** and **white shark cage diving** and criteria for site identification for off road vehicles. Opportunities include increasing new entrants from Previously Disadvantage Individual (PDI) background, dealing with barriers to entry such as capital, incubating small entry operators and fast track licensing process.

**Blue Flag beaches** programme in place **creating 200 jobs**.

All coastal and marine tourism initiatives underway.





# Small Harbours Development



## SMALL HARBOURS





# SMALL HARBOURS DEVELOPMENT HIGHLIGHTS

## Convening of the Delivery Laboratory – Pre-LAB

The Department of Public Works (DPW) has undertaken an extensive Pre-Lab process of consulting with all coastal Provinces and Municipalities in preparation for the National Small Harbours Delivery Laboratory. The Pre-lab consultations spanned from December 2016 until March 2017.

Initial development projects have been identified in all relevant municipalities and efforts are underway to match them to investors.

A total of 70 coastal projects have been identified across the four coastal provinces with the number continuously increasing as new projects are identified.

DPW has convened four (4) Provincial Investor Conferences at the following dates:

- WC: 15-17 August 2017
- KZN: 29-31 August 2017
- NC: 12-14 September 2017
- EC: 4-5 October 2017







## SMALL HARBOURS DEVELOPMENT HIGHLIGHTS

### **National Priority Projects:**

DPW intends on developing three new small harbours under the Forum on China Africa Co-operation (FOCAC) Agreement:

- Port Nolloth, Northern Cape
- Port St Johns, Eastern Cape
- Port Edward, KwaZulu-Natal

### **Repair Programme to the Proclaimed Fishing Harbours:**

- The removal of sunken vessels has commenced at Lamberts Bay, Laaiplek Harbour, St Helena Bay, Saldanha Bay, Hout Bay, Hermanus and Gansbaai.
- Dredging of the harbour basins will commence upon completion of the removal of sunken vessels.
- Landside infrastructure items will be executed concurrently.

### **Operation Phakisa Leases:**

- All leases will follow the new Letting Out Framework as approved by National Treasury.



## **Skills Development and Capacity Building**



## SKILLS DEVELOPMENT AND CAPACITY BUILDING HIGHLIGHTS

The Oceans Economy is supported by a **co-ordinated, national maritime skills development plan**. The **South African International Maritime Institute (SAIMI)** manages and co-ordinates five working groups, bringing together education and training providers; Oceans Economy Delivery Units; industry representatives, and academic specialists in order to **develop an integrated national plan**.



The **National Cadet Programme** is managed by the South African International Maritime Institute (SAIMI).



## SKILLS DEVELOPMENT AND CAPACITY BUILDING HIGHLIGHTS

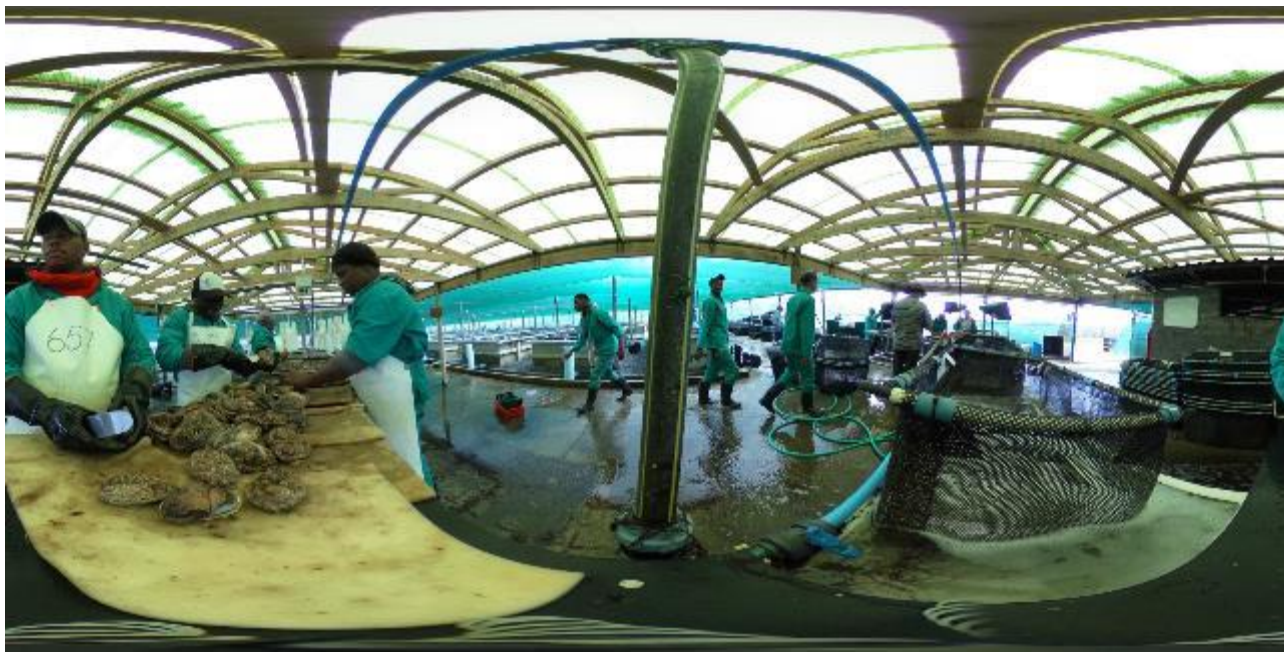
- A comprehensive skills needs audit for the Aquaculture sector has commenced.
- 12 placements for Aquaculture at the Department of Agriculture, Forestry and Fisheries (DAFF) for 2017.
- 536 Apprenticeships recorded for Marine Manufacturing.
- 608 Artisans trained.
- 1 190 people trained on different skills programmes.
- Maritime High Schools: 99 Learners (EC); 1 643 Learners (KZN).
- College of Cape Town providing Marine Engineering Workshop Training (9-months) for 40 Cape Peninsula University of Technology (CPUT) students from February 2017.
- Current enrolments at CPUT and Durban University of Technology (DUT) – 121 students and 388 students respectively.
- Roadmap for cross-sector maritime research, innovation and knowledge management concluded; implementation by SAIMI underway.
- 634 cadets enrolled on the National Cadet Programme since 2011; 736 cadets enrolled through the Transnet National Ports Authority (TNPA) programme since 2012.
- Operation Phakisa Skills Working Group for Coastal and Marine Tourism established.





## AQUACULTURE SKILLS DEVELOPMENT

- Skills audit conducted.
- Department of Agriculture, Forestry and Fisheries (DAFF) has awarded 27 **bursaries** for Fisheries in 2017; 7 of those were for Aquaculture postgraduate students. DAFF has already advertised for 2018/19.
- AGRISETA has launched a **Recognition of Prior Learning** (RPL) pilot project at 6 colleges of agriculture, with 20 RPL candidates per college.
- Feb 2017 - 47 **internship and work based learning candidates** placed by DAFF in Fisheries (12 of these were for Aquaculture). DAFF has already advertised for 2018/19.





## MARINE MANUFACTURING SKILLS DEVELOPMENT

- 536 Apprenticeships trained on an 18-month Workplace-based Experiential Learner Programme in scarce & critical trades between 2015 and 2017 in Western Cape (WC), KwaZulu-Natal (KZN) and Eastern Cape (EC) in trades such as Boatbuilding, Welding, Rigging, Boilermaking, Refrigeration, Electrical.
- 170 Learnerships in KZN and WC between 2016 and 2017.
- Profiling of new occupations finalised by SAIMI and Manufacturing, Engineering and Related Services Sector Education and Training Authority (MerSETA) for consideration by the Department of Higher Education and Training (DHET) for inclusion in the Organising Framework for Occupations (OFO). Occupational Team for Naval Architecture and Marine Engineering established end 2016.
- DHET has finalised its process of allocating Technical Vocational Education and Training (TVET) colleges as Centres of Specialisation for different trades in Saldanha Bay and Richards Bay. RPL Toolkits for other generic trades have been finalised by the National Artisan Moderating Body (NAMB).
- 608 Artisans trained between 2014 and 2017 in the Western Cape (WC).
- 1 190 people trained on different skills programmes in WC, EC, KZN between 2015 and 2017.
- The Saldanha Bay Industrial Development Zone (SBIDZ) recruiting 350 candidates for training from the ESSA system.



## MARINE TRANSPORT SKILLS DEVELOPMENT

### **Increase capacity to Develop Skills for Seafarers:**

- Current enrolments at CPUT and DUT – 121 students and 388 students respectively.
- Nelson Mandela University (NMU) plans to introduce B Eng Tech Marine Engineering qualification in 2018, expected to produce about 50 graduates in 2022.
- SAIMI has set aside funding for the Lecturer Subvention Programme (for 2017) for the three universities – CPUT, NMU, DUT.
- College of Cape Town providing Marine Engineering Workshop Training (9-months) for 40 CPUT students from Feb 2017.
- 634 cadets enrolled through the National Cadet Programme since 2011. Currently there are 196 cadets on the programme (38 females).
- 736 cadets enrolled through the TNPA programme since 2012. Currently there are 184 cadets on the programme (68 females).
- Funding for the Able Seafarer/Ratings (Engine/Deck) pilot training programme at Umfolozi (KZN) and College of Cape Town (WC) was approved in July 2017. The project will produce about 45 Able Seafarers per annum (15 Fishing, 15 Deck, 15 Engine).



## MARINE TRANSPORT SKILLS DEVELOPMENT

- Seafarer Qualifications developed during Quality Council for Trades and Occupations (QCTO) I (5 Qualifications and 17 part-qualifications) and QCTO II (6 qualifications) approved by QCTO; awaiting approval by the South African Qualifications Authority (SAQA).
- Task Team established to discuss the Skills Development Fund which will provide for industry comparable salaries, bursaries, support for Train the Trainer, Excursions, Training Berths.
- Roadmap for cross-sector maritime research, innovation and knowledge management concluded in 2016.
- Maritime High Schools:
  - 99 Learners (EC); 1 643 Learners (KZN).
  - Klaveness Ship Management recruited 11 learners from high schools in KZN that started Ratings training with the South African Maritime Training Academy (SAMTRA) in March 2017.
  - SAIMI and the Transport Education Training Authority (TETA) collaborating on a pilot project in support of 5 maritime high schools in KZN, EC, and WC







## OFFSHORE OIL AND GAS EXPLORATION SKILLS DEVELOPMENT

- Skills Roadmap completed in December 2016.
- Call for the Department of Science and Technology / National Research Foundation / South African International Maritime Institute (SAIMI) Research Chair in Petroleum Geosciences and Engineering.
- PetroSA Centre of Excellence to be used as a vocational training centre for scarce and critical skills. There are currently 52 candidate placed at PetroSA in different trades.



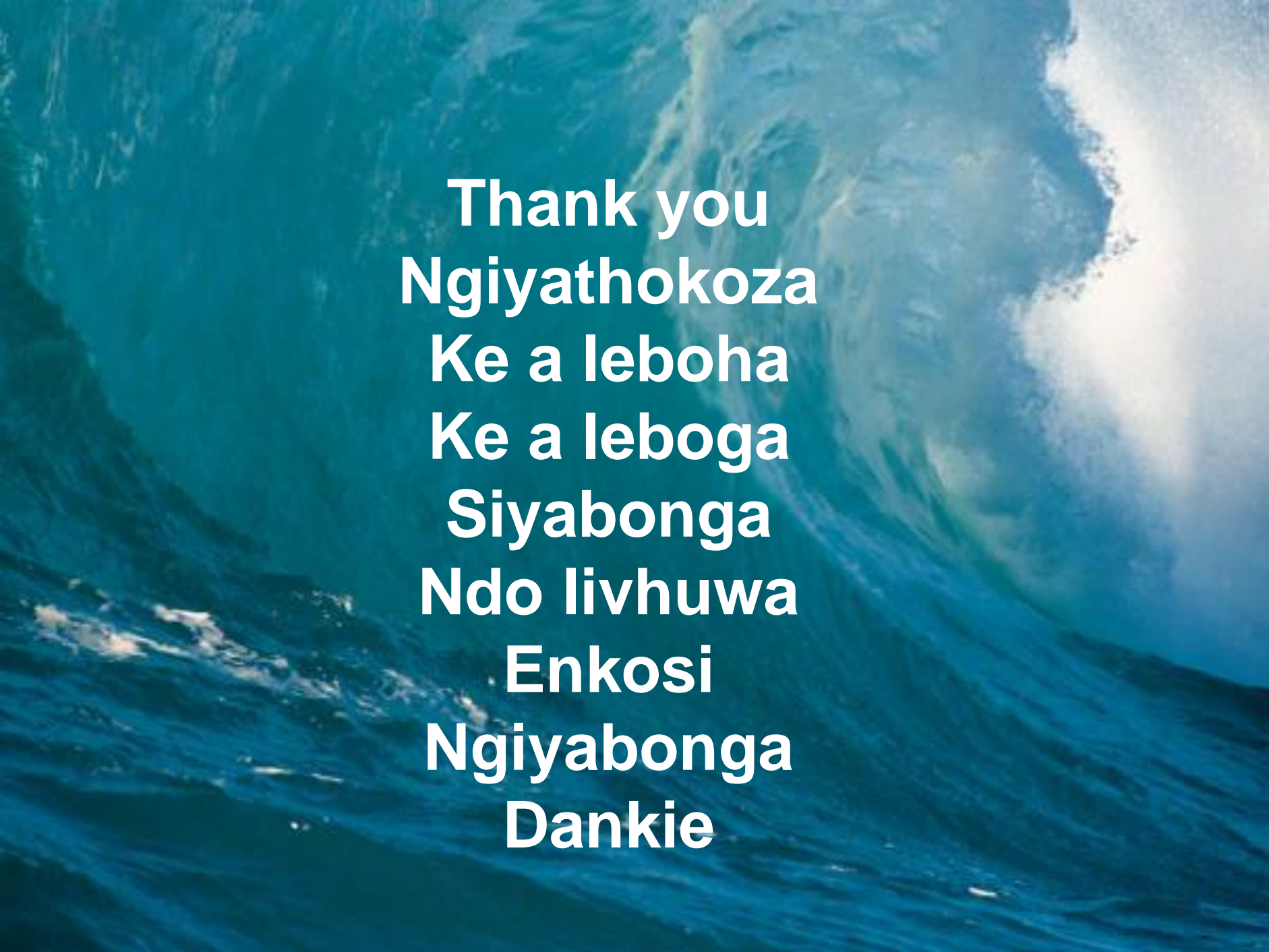
## MARINE PROTECTION & GOVERNANCE SKILLS DEVELOPMENT

- List of new occupations profiled and submitted to DHET for inclusion into the Organisational Framework for Occupations (OFO).
- Coastal and Marine Tourism Skills Working Group formed.



## COASTAL AND MARINE TOURISM SKILLS DEVELOPMENT

- Coastal and Marine Tourism Skills Working Group formed.



**Thank you  
Ngiyathokoza  
Ke a leboha  
Ke a leboga  
Siyabonga  
Ndo livhuwa  
Enkosi  
Ngiyabonga  
Dankie**