



REPUBLIC OF SOUTH AFRICA



OCEANS ECONOMY

REVIEW WORKSHOP

Cape Town, 15 October 2015

- 1** Operation Phakisa: **Unlocking the Economic Potential of South Africa's Oceans** focuses on four priority potential growth areas (marine transport and manufacturing, offshore oil and gas exploration, aquaculture and marine protection services and ocean governance) that have **significant GDP growth and job creation potential**
- 2** Operation Phakisa **will deliver on some of the aspirations of the National Development Plan 2030** which have been **championed at every level of government and society**
- 3** Operation Phakisa represents a **fundamental change** in how we accelerate delivery – it is the **first of many 'business unusual' initiatives** that government will implement
- 4** Operation Phakisa engaged **656 participants from 68 institutions** in government, private sector, civil society, labour, and academia and developed **47 detailed initiatives**, translating into **>400 key performance indicators (KPIs)**, and **2 900+ specific activities**
- 5** Together, these 47 initiatives are expected to **increase the Ocean Economy's GDP contribution by >R20 bn**, and lead to the **creation of 22 000 direct new jobs by 2019**
- 6** **Delivery of these initiatives will be supported by multiple leaders including the President and Cabinet**, the Minister in the Presidency, Department of Planning, Monitoring and Evaluation's Operation Phakisa Delivery Unit, Lead Ministers for each lab, and specific initiative owners identified in detailed 3-ft delivery plans.

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- **Marine Transport and Manufacturing**

2



- **Offshore Oil and Gas Exploration**

3



- **Aquaculture**

4



- **Marine Protection Services and Ocean Governance**

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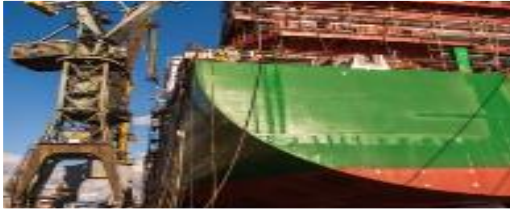
- **Small Harbours Development**

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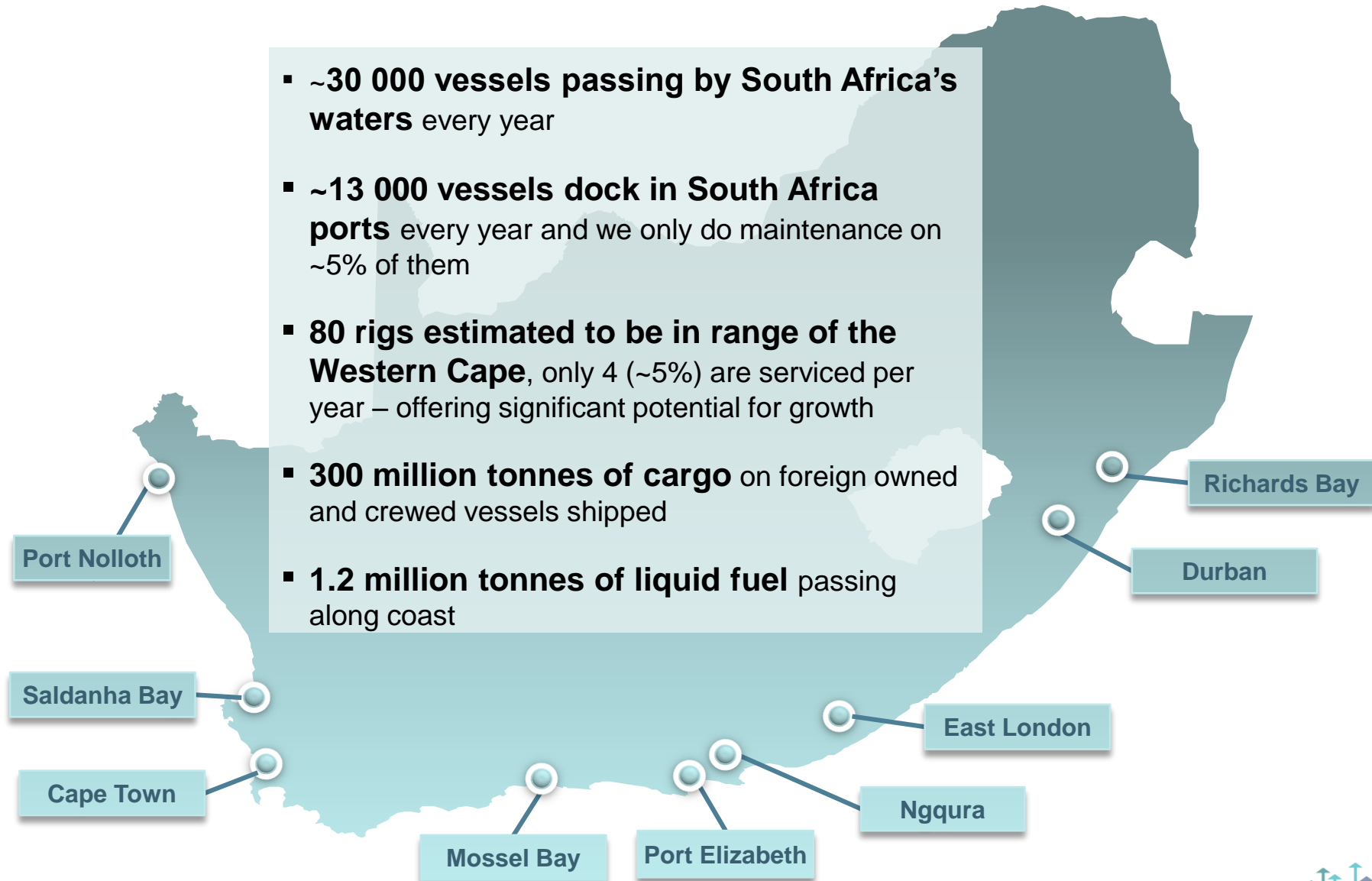


- **Coastal and Marine Tourism**

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Marine Transport and Manufacturing





Lab Outputs and impact

- >50 representatives from 20+ public, private, and civil society organisations engaged in the lab
- The lab developed 18 initiatives across 3 categories (infrastructure and operations, skills and capacity building, and market growth) to accelerate sector growth
- These 18 initiatives will create >15 000 direct jobs, 40 000 additional jobs and additional R18.8 bn in GDP by 2019. They will also expand South African port capacity for repair work by 12X for oil ships and 4.5X for oil rigs.
- An estimated government expenditure of R14.5 bn in CAPEX and R6.6 bn in OPEX will be required to fund this growth.





- South Africa's strategic advantages (i.e., location, infrastructure, and skills base) have not been fully exploited to drive growth in the marine transport and manufacturing sector
- 2 high potential elements of the sector remain in infancy stage:
 - **Marine manufacturing** (ship repair and refurbishment, and boat-building): South Africa captures ~1% of global repair / refurbishment market
 - **A national registry for local ownership of shipping vessels: South Africa** has no registered ships although 300 million tons of cargo moves through our ports and 1.2 million tons of liquid fuel moves along our coast .



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)

i. TNPA – Transnet National Ports Authority
 ii. ESSA – Employment Services of South Africa
 iii. TVET – Technical and Vocational Education and Training

iv. RPL – Recognition of Prior Learning
 v. CBMT – Competency-based Modular Training



- Transnet National Ports Authority (TNPA) and Transnet SOC Limited have adopted a Public-Private- Partnership (PPP) model to finance new Operation Phakisa infrastructure at the Ports of Saldanha Bay, Richards bay and East London.
- PPP opportunity of approximately R7 billions investment in new facilities.
- Establishment of Saldanha bay as an oil and gas hub :
 - Total investment (public and private) estimated at R9.2 billion. 3 Projects
 1. Offshore Supply Base- work has commenced, approximately 30 initial jobs currently being created)
 2. Berth 205 (construction of new rig repair facility)
 3. Moss gas Jetty (extension of existing quay)

- Transnet National Ports Authority (TNPA) and Transnet SOC Limited will fund and execute the refurbishment and upgrade of existing Ship Repair Facilities at South African commercial ports.
- Transnet investment in new port infrastructure (Saldanha Bay, East London, Richards Bay) :
 - Transaction Advisors to facilitate initiative unlocking investment in new port facilities appointed.
 - Business cases delivery (October 2015 to January 2016) Scope of analysis and stakeholder engagement local and international
 - Development of funding model at an advanced stage.



- Refurbishment of existing ship repair facilities :
 - Shareholder has approved the operating model for existing ship repair facilities
 - Scope of works completed for all projects. Projects at various different stages of planning and execution. Highlights include ;
- Refurbishment of outer dry dock caisson and procurement of equipment in Durban; refurbishment of Lead in Jetty in Port Elizabeth and
- Upgrade of Offshore Supply Base in Saldanha in execution phase.
- A total of 177 construction related jobs have been created through initiative 5 within the last 12 months
- A Section 79 application for a port lease at the Port of Port Elizabeth in support of the Composites Cluster and boat building has been

Granted by the Minister of Transport. This will be implemented in accordance with any necessary and suspensive conditions (e.g. transformation and local content requirements)

- This unlocks R1.25 billion in investment contracts over the next 5 years in respect of the building of catamarans.
- DTI has designated working vessels for local procurement (60% local content). National Treasury issued Instruction Note.





1



Saldanha : Rig Repair Berth 205 (Artist Impression)



1



Saldanha : Mossgas Jetty (Artist Impression)



1



Saldanha : Oil and Gas Supply Base (Artist Impression)



1



Richards Bay : Ship Repair (Artist Impression)



2



Offshore Oil and Gas Exploration



Background and aspiration

- South Africa's offshore oil and gas sector is in early development phase
- Developing an oil and gas industry takes decades

Lab Output and impact

- >10 Government departments and Senior Managers of major energy companies engaged in the lab
- The lab identified 11 initiatives in total:
 - 10 to be implemented by 2019
 - 1 to be implemented with first results by 2025 (development of phased gas pipeline network)



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*** ...

... in order to ***drill 30 exploration wells*** in the next 10 years ...

... while simultaneously ***maximising the benefits for South Africa***



Background and aspiration

- South Africa's coast and adjoining waters have possible resources of 9 bbl of oil (40 years of SA consumption) and 11 bbl of natural gas (375 years of SA consumption)
- This will require significant investment in SA deep water offshore environment (~US\$ 150 million per well) and time commitment (2-3 decades).

Output and impact

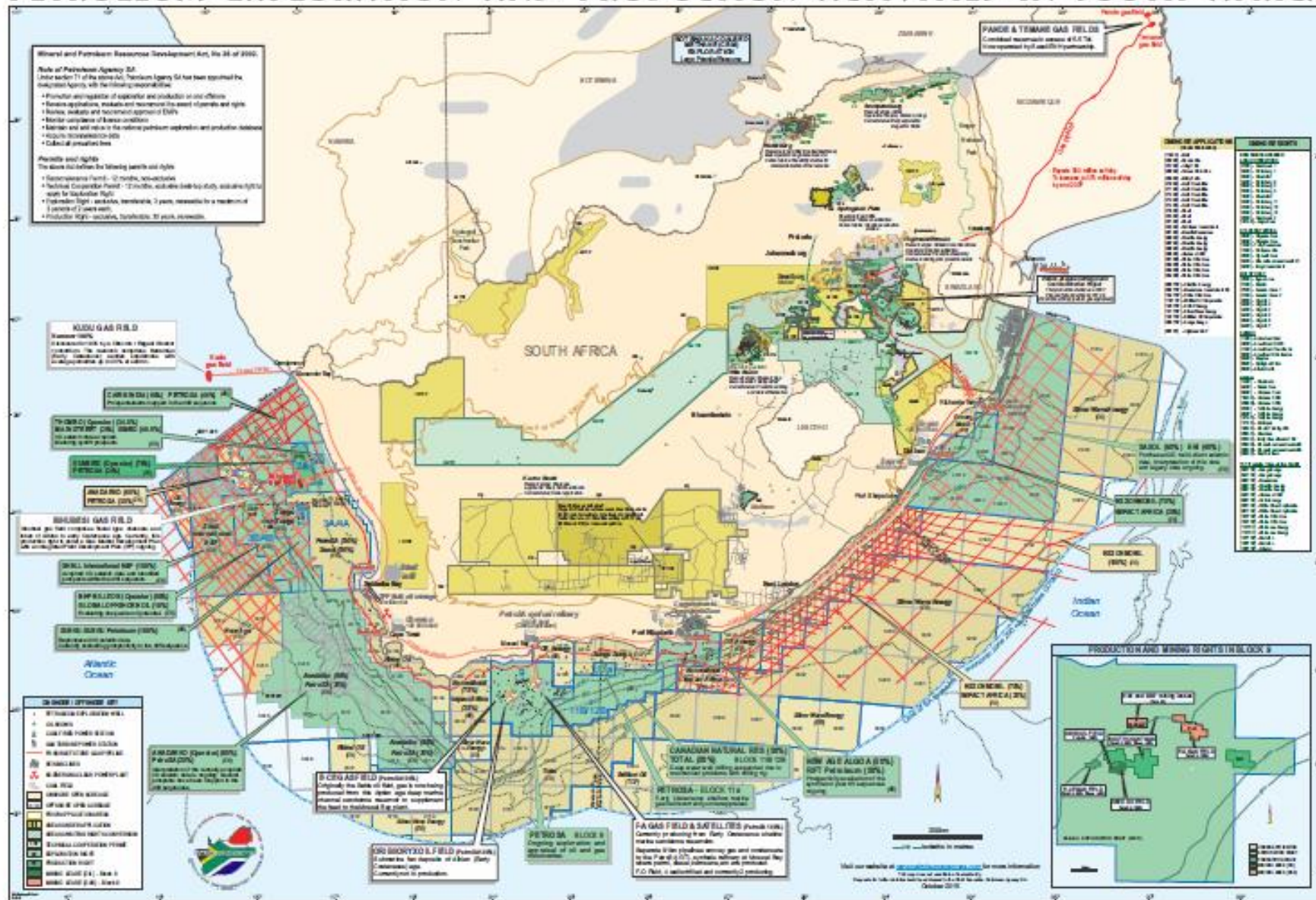
- Over the next 20 years, this could lead to production of 370 000 barrels of oil and gas per day (~80% of current oil and gas imports), creating 130 000 jobs and contribute US \$2.2 bn to GDP
- An estimated US \$3-5 bn investment would be required to achieve the lab's aspiration of 30 exploration wells in 10 years.

EXPLORATION OPPORTUNITIES IN SOUTH AFRICA



Source: <http://www.petroleumagencyssa.com/>

PETROLEUM EXPLORATION AND PRODUCTION ACTIVITIES IN SOUTH AFRICA



Source: <http://www.petroleumagencyssa.com/>



A Infrastructure

- A1 Develop phased gas pipeline network

B Environment

- B1 Conduct joint industry/government emergency response drills
- B2 Operationalise IOPC¹ Funds
- B3 Exploit broader research opportunities presented by offshore oil and gas exploration

C Localisation of Supply Chain

- C1 Develop/implement local content roadmap

D Capability Development

- D1 Develop/implement skills strategy roadmap
- D2 Develop capability for sub-surface research and data gathering

E Institutions

- E1 Build end-to-end institutional structure
- E2 Enhance environmental governance capacity of oil and gas regulator
- E3 Promote awareness of oil and gas industry

F Legislative

- F1 Provide legislative clarity and stability

¹ Internal Oil Pollution Compensation



The initiatives identified have been evaluated for implementation timing

Phase I: Initial short term

First results by Mar 2016

- B1** Conduct joint industry/government emergency response drills
- B2** Operationalise IOPC fund
- B3** Exploiting the broader research opportunities presented by offshore oil and gas exploration
- E1** Build end-to-end institutional structure
- F1** Provide legislative clarity and stability

Phase II: Medium term

First results by Mar 2019

- C1** Develop/implement local content roadmap (2016)
- D1** Develop/implement skills strategy roadmap (2016)
- D2** Develop capability for sub-surface research and data gathering
- E2** Enhance environmental governance capacity of the Oil and Gas regulator
- E3** Promote awareness of the Oil and Gas industry

Phase III: Long term

First results by Mar 2025

- A1** Develop phased gas pipeline network



**A** Infrastructure**A1: PHASED GAS PIPELINE**

- Indicative pipeline costs have been established
- Securing servitudes/reserves for the pipeline is in progress. CSIR has been appointed as service provider for SEA, whose timeframes have been aligned to OP timeframes:

B Environment**B1: JOINT GOVERNMENT****INDUSTRY RESPONSE DRILLS**

- Formalise IOP participation has been done
- Gap analysis of existing capacity, stakeholders and entities complete
- Setting oil spill response team purpose and scope is in progress
- Pre-emergency planning is complete.
- Emergency Response is in progress

**B** Environment**B2: OPERATIONALISE THE IOPC FUND**

- Agreement on disputed payment of arrears is complete
- Fully operational IOPC Fund is 95% complete

B3: EXPLOITING BROADER RESEARCH OPPORTUNITIES PRESENTED BY OFFSHORE OIL & GAS EXPLORATION

- Project design complete
- Stakeholders analysis and database complete:
- Formalise IOP participation has been done
- Establish and maintain multi-stakeholders project management team (PMT) has been done

**B** Environment**B3: EXPLOITING BROADER RESEARCH OPPORTUNITIES PRESENTED BY OFFSHORE OIL & GAS EXPLORATION**

- NRF has been contracted
- Kick start workshop Research Exploration Forum has been held.
- Research opportunity exploitation reports and agreements is almost complete
- Data management structures and systems agreement is in progress

C Localisation of Supply Chain**C1 : DEVELOP LOCAL CONTENT ROADMAP**

- Financial analysis of SA offshore oil & gas sector procurement has been conducted and complete.
- Setting targets for minimum local production and supply in proportion to total domestic upstream O&G value spend is in progress

**D** Capability Development**D1 : DEVELOP COLLABORATIVE SKILLS STRATEGY ROADMAP**

- Formation of skills development workgroup has been done
- Development of a skills strategy roadmap is at advanced stages due for completion in December 2015

D2: DEVELOP CAPABILITY FOR SUBSURFACE RESEARCH AND DATA GATHERING

- Technical capability built programmes for subsurface information activities have been identified
- Reviewing and assessment of Mechanism to formalise reservoir technical capability is 92 percent complete

**D** Capability Development**D2: DEVELOP CAPABILITY FOR SUBSURFACE RESEARCH AND DATA GATHERING**

- Development of subsurface information acquisition hard infrastructure is 50 percent complete
- Confirming utilisation arrangements is in progress

E Institutions**E1: ACHIEVE A STREAMLINED AND EFFICIENT E2E INSTITUTIONAL STRUCTURE FOR REGULATION OF O&G EXPLORATION AND PRODUCTION**

- Final decision on optimal structure is 50 percent complete Migration of PASA for CEF to DMR in progress but much slower than previously anticipated

**E** Institutions**E2: ENHANCE ENVIRONMENTAL GOVERNANCE CAPACITY OF O&G REGULATOR**

- Multi-stakeholder WG has been established
- Skills need analysis has been done
- Services providers have been appointed
- International Benchmarking has been done

E2: ENHANCE ENVIRONMENTAL GOVERNANCE CAPACITY OF O&G REGULATOR

- Status quo report is complete
- Stakeholder engagement has been done
- Final scoping is complete
- Performance monitoring and reporting is in progress

**F** Legislative**E3: PROMOTE AWARENES OF THE O&G INDUSTRY**

- Designing the outreach component of the Regulator is 70 percent complete
- This is due for completion in December 2015

F1: FISCAL TERMS CLARITY

- MPRD Amendment Bill has been referred back to parliament
- Multi-stakeholder WG has been established
- Bilateral discussions between DMR, ONPASA and OPASA have yielded convergence on major issues identified

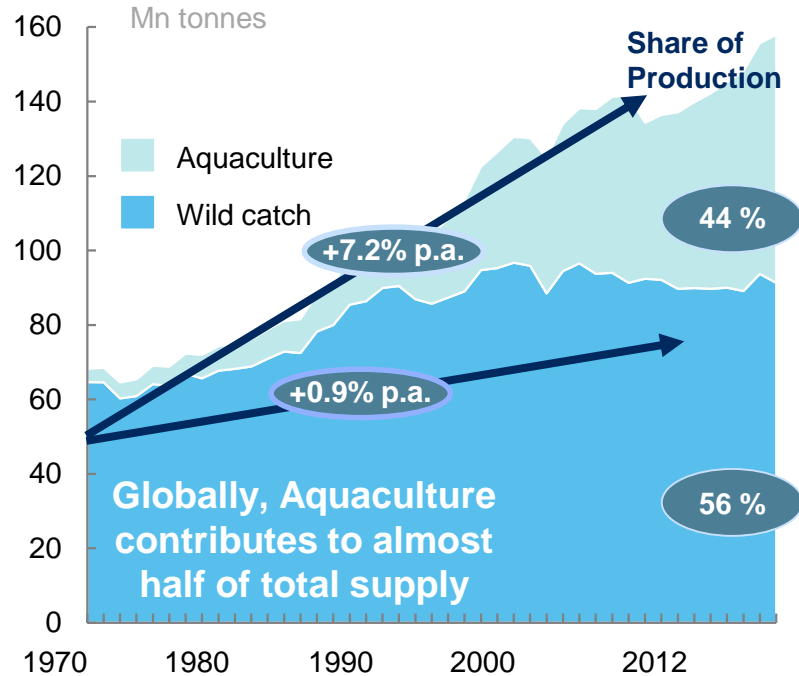
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Aquaculture



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



Aquaculture - BACKGROUND

~4,000 tonnes
(excluding seaweed) of
Aquaculture production in
2013 (28% freshwater, 72%
marine)



~50% of Aquaculture
farms in SA are located in the
Western Cape



Untransformed sector
with 10% PDI participation at
management level in the
sector



In SA however,
aquaculture is a young
industry with low scale of
production

In 2012, **>600,000**
tonnes of fish and fish
products was produced in
South Africa; only **0.8%** of
it was from Aquaculture farms



2,227 jobs in the sector



Aquaculture contributes
~R 0.7 bn (0.2%) to
South Africa's GDP





Satisfy local demand



Contribute to food and nutritional security



Create sustainable job opportunities



Foster economic development



Capitalise on export opportunities



Stimulate rural development and livelihoods



Attract foreign direct investment



Safeguard sustainable environmental integrity



Create SMMEs and wealth generating opportunities through Aquaculture

Aquaculture is a sector that presents a good opportunity to diversify fish production

The Aquaculture sector in South Africa has incredible potential and yet remains at a small-scale leading to many challenges for producers

<p><i>"...We don't have the economies of scale to be commercially viable ..."</i></p>	<p>Inefficient regulation and governance systems</p>	<p>Difficulty in accessing financing</p>	<p>Under-representation in the sector</p>	<p><i>"... The way the banks price risk is crazy... few people really understand the nature of our business..."</i></p>
<p><i>"...It's taken 28 months to get a single permit to expand my farm..."</i></p>	<p>Limited market footprint</p>	<p>Small-scale</p>	<p>Small pool of skills</p>	<p><i>"...PDIs only make up less than 10% of the sector..."</i></p>
<p><i>"...we should be supplying salmon and trout instead of importing 1000s of tonnes..."</i></p>	<p>Fragmented research and development</p>	<p>Rural infrastructure underdeveloped</p>	<p>Challenge in sourcing quality inputs</p>	<p><i>"...I lost all my fish since there was no fish vet..."</i></p>
<p><i>"...our R&D should focus on meeting market demand in South Africa..."</i></p>				<p><i>"...High set-up costs are a huge barrier to entry in this sector..."</i></p>
				<p><i>"...We don't have the economies of scale to get quality feed from suppliers..."</i></p>



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...**”



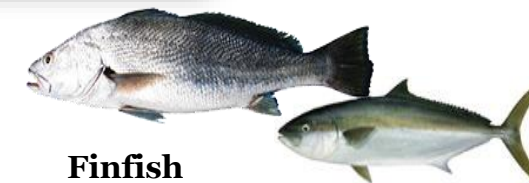
Abalone



Oyster



Mussels



Finfish



Phase 1: Implementation of initiatives in 6 to 12 months Initial short term targets

- ✓ 1a ★ Implementation of 9 initial projects
- ✓ 3 ★ Establishment of an Inter-Departmental Authorisations Committee
- 👎 5 ★ Establishment of an Aquaculture Development Fund
- 👉 7 ★ Coordination of industry-wide marketing efforts

Phase 2: Implementation of initiatives in 12 to 24 months

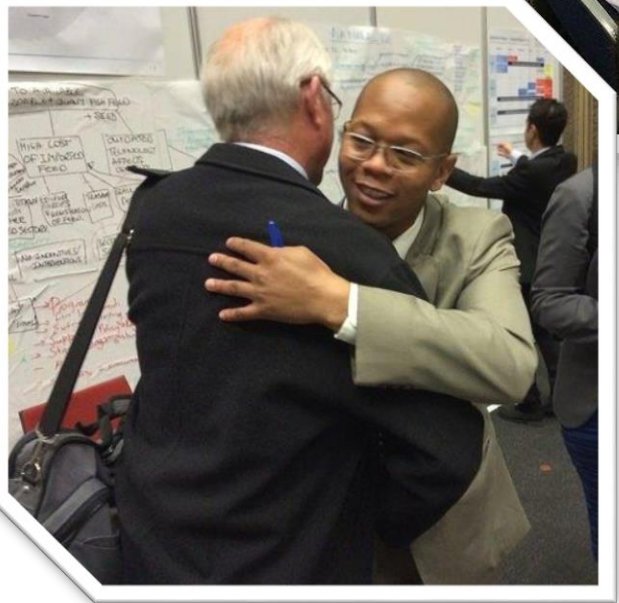
- 👉 1b Implementation of 6 ready-to-operate projects and selection of additional projects
- ✓ 2 Legislative reform to promote Aquaculture development
- 👉 4 Establishment of a globally recognised monitoring and certification system
- 👉 6 Capacity building for support services
- 👎 8 Preferential Procurement of Aquaculture products

Phase 3: Implementation of initiatives in 2 to 4 years

- ✓ 1 Implementation of 12 ready-to-operate projects and selection of additional projects
- 👎 6 Capacity building for entire sector

★ Initial short-term targets

Collaboration, information sharing, implementation plans developed



Images by Ismail Lagardien

- ✓ Lab aspiration and 9 key issues identified
- ✓ 8 initiatives developed
- ✓ 30 implementation plans (19 projects and 11 initiatives)
- ✓ Budget and Key Performance Indicators for 30 plans
- ✓ Lab report




Solutions developed focuses on priority initiatives that support the implementation of the 24 catalytic projects

1  **Selection and Implementation of 24 Projects**
 Select and implement 24 aquaculture projects over 3 phases in order to increase the scale of the aquaculture sector; projects comprise both new farms and the expansion of existing farms





2 **Legislative reform**
 Amend legislation to harmonise the assortment of existing regulations and promote aquaculture sector growth

3  **Inter-departmental authorisations committee**
 Establish a committee that will streamline and coordinate applications and approvals in the aquaculture sector


4 **Globally recognised monitoring and certification system**
 Establish a recognised monitoring and certification system to boost exports of South African aquaculture products

Regulations




5  **Aquaculture development fund**
 Establish an integrated pool of existing funds in order to finance all phases of aquaculture projects (including pre-production) and encourage new entrants to participate in the aquaculture sector


Funding



6 **Capacity building and skills development for support services**
 Increase and up-skill technical resources (e.g., extension officers) available to support aquaculture sector growth


Skills




7  **Coordinated industry-wide marketing efforts**
 Launch coordinated industry-wide marketing efforts to increase local consumption of aquaculture products, and encourage the growth of small-scale farmers / new entrants

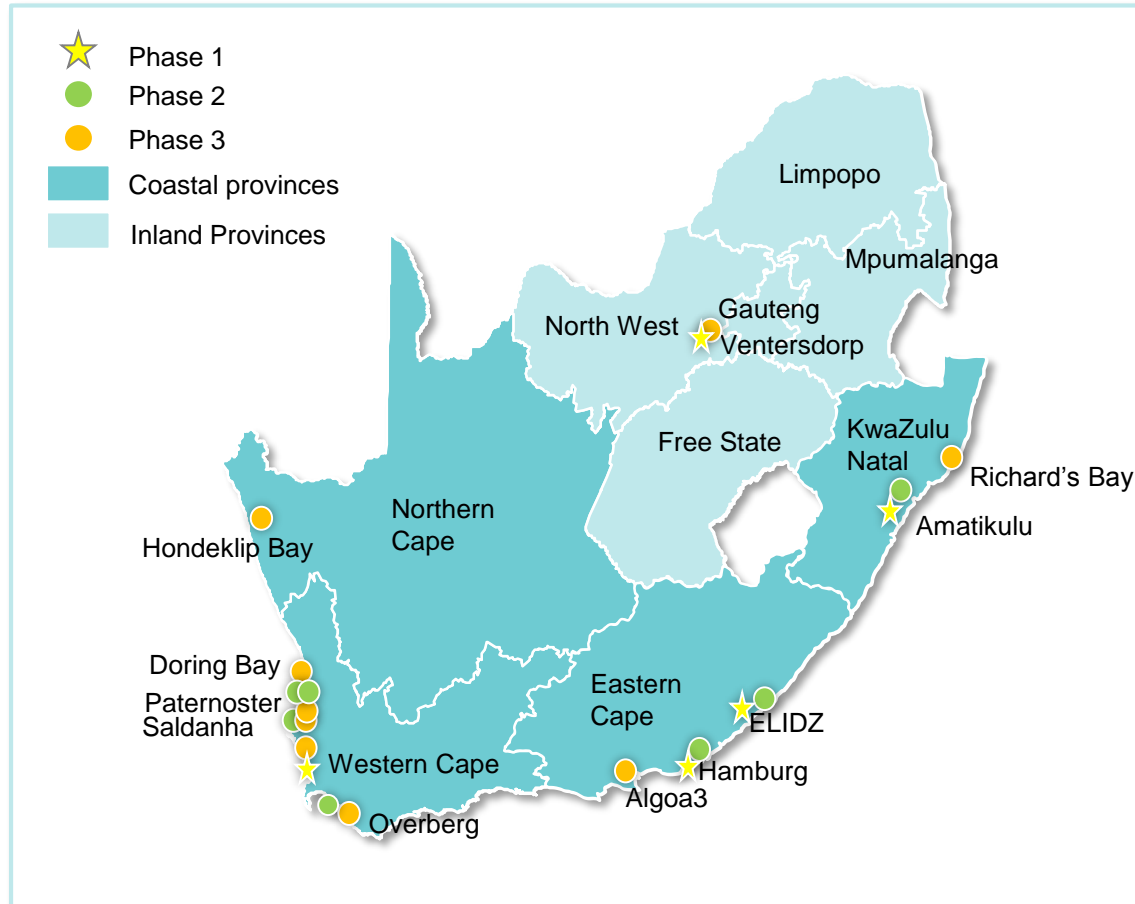
8 **Preferential Procurement**
 Partner with government institutions to procure aquaculture products, thereby increasing local consumption and improving nutritional levels in South Africa
























Market



 Initial short-term targets

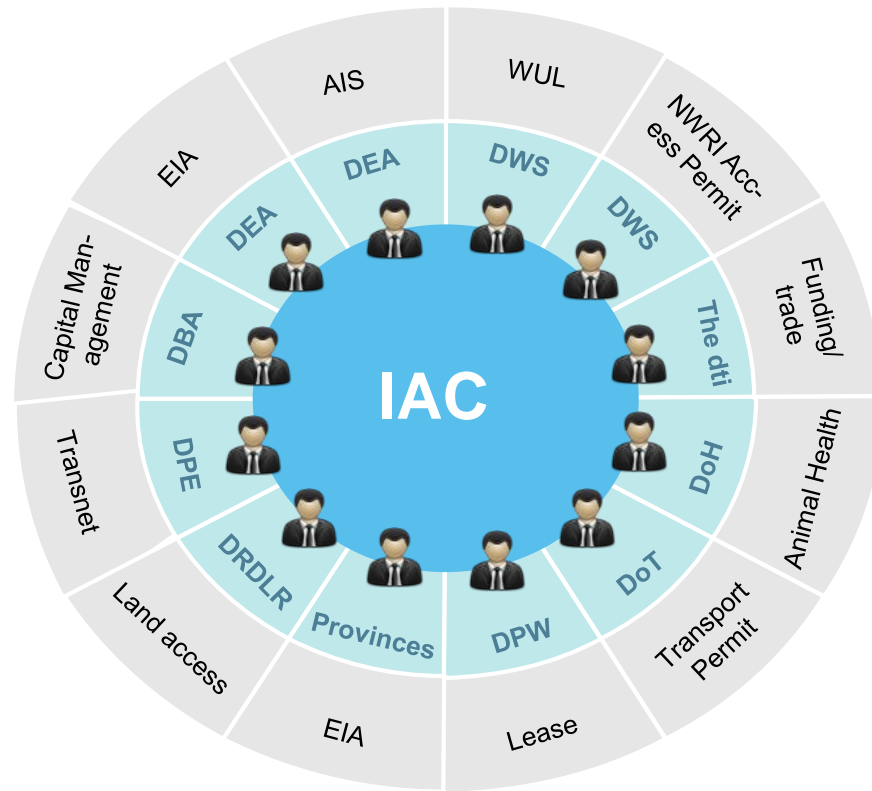
24 projects have been selected and sequenced for implementation across 3 phases



Project/enterprise	
★	Hatchery expansion- Paternoster- Oyster 
★	Expansion- East London IDZ- Kob 
★	Expansion- Hamburg cluster- Oyster 
★	Expansion - Venterdorp- Catfish 
★	Expansion - Roman Bay – Abalone 
★	Expansion - Abagold 
★	Expansion - HIK Abalone 
★	Expansion - Amatikulu - Ornaments 
★	Expansion - Wild Coast Abalone - Abalone 
●	New- Wild coast abalone ranching cluster - abalone 
●	New- Hamburg cluster - Kob 
●	New- Saldanha Viking Cages - Trout and Salmon 
●	New - Amatikulu - Kob 
●	Expansion - Marine Growers - Abalone 
●	Expansion - Doring Bay Abalone - Abalone 
●	Expansion- Saldanha Blue Ocean Mussels - Mussel 
●	Expansion- Saldanha Bay Oyster Company - Oyster 
●	New- Saldanha Southern Atlantic Sea Cages - Salmon 
●	New- Algoa Bay Sea Cage Farming - Yellowtail 
●	New- Richards Bay Sea Cage Farming - Dusky Kob 
●	New- Diamond Coast Abalone Ranching - Abalone 
●	ADZ-Venterdorp - Catfish 
●	Expansion - DST Abalone Hatchery 
●	Expansion - Jacobsbaai Sea Products - Abalone

3 Establishment of an Inter-Departmental Authorisations Committee

Currently, there is an uncoordinated approach to processing of applications for Aquaculture, approvals of which can take up to **830 days**. The establishment of the Inter-Departmental Authorisations Committee (“IAC”) aims to co-ordinate applications and approvals, with the expectation of reducing processing time to **240 -360 days**.



890 days to 240/360 days!

Representation at the IAC by all relevant departments

5 Establishment of an Aquaculture Development Fund

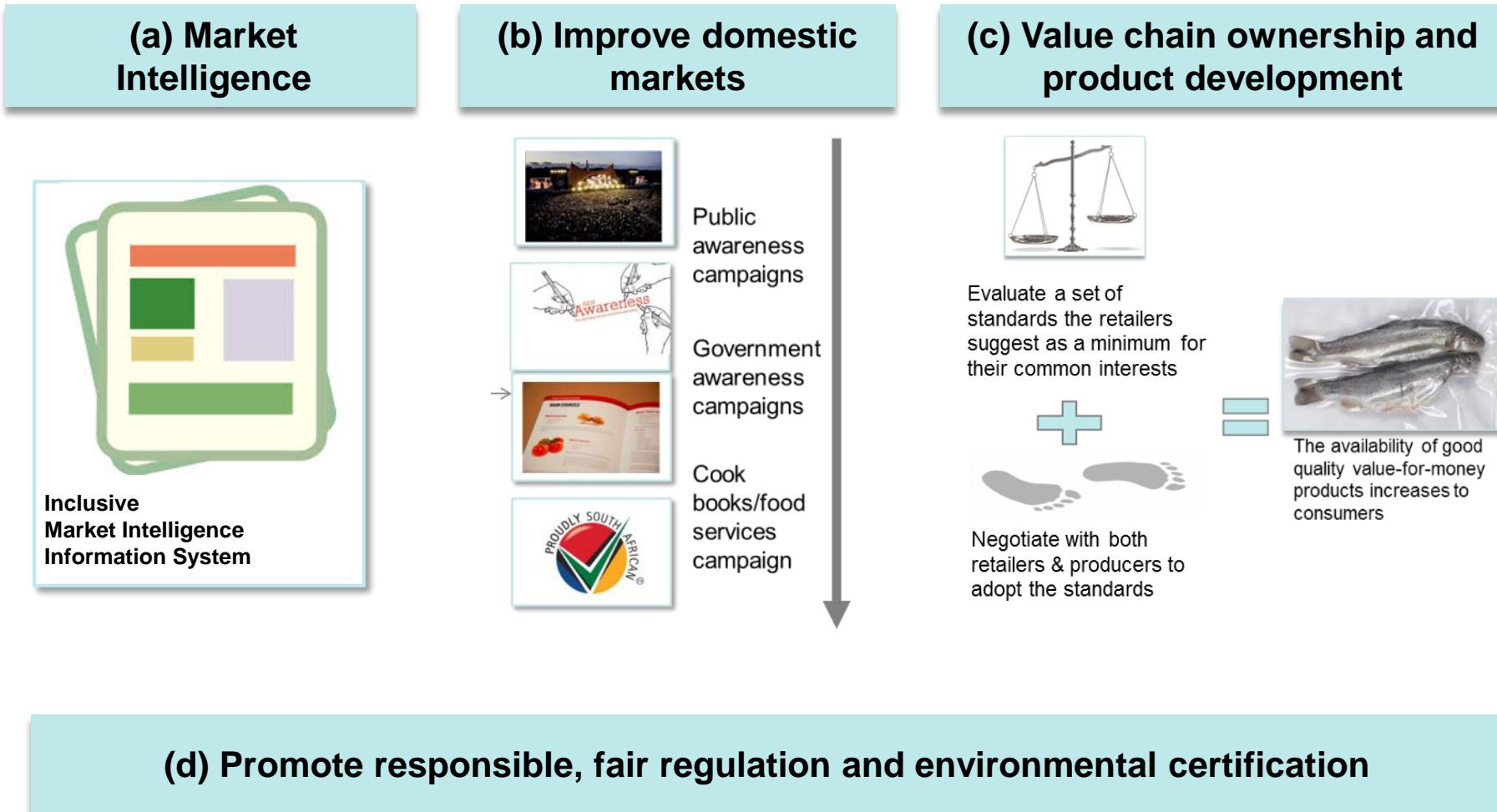
The Aquaculture sector faces difficulty in accessing finance as the sector is small and not well understood by financing institutions.

ADF aims to fast-track growth, while meeting transformation objectives

- Funding pool to assist end-to-end Aquaculture projects
- Coordinates funding from various government departments and DFIs through an MoC
- Initial proposal for ADF to be managed by Land Bank/DFI
- Key focus of ADF to drive transformation / inclusivity by providing new entrants with access to funding in pre-production phase

7 Coordination of industry-wide marketing efforts

The players in the Aquaculture sector have limited access and awareness of markets



Initiative 1 : 24 Catalyst Projects

Challenges for other 15

- Market access (funding available for initiative 7)
- Access to land/water (DPW/TNPA working groups)
- Infrastructure (assistance from NAMC, SIP 11)
- Funding and investment (funding working group)

Progress

- Nine projects are on schedule or ahead of schedule (jobs, production, GDP and transformation) *Six expansion projects and three new projects:

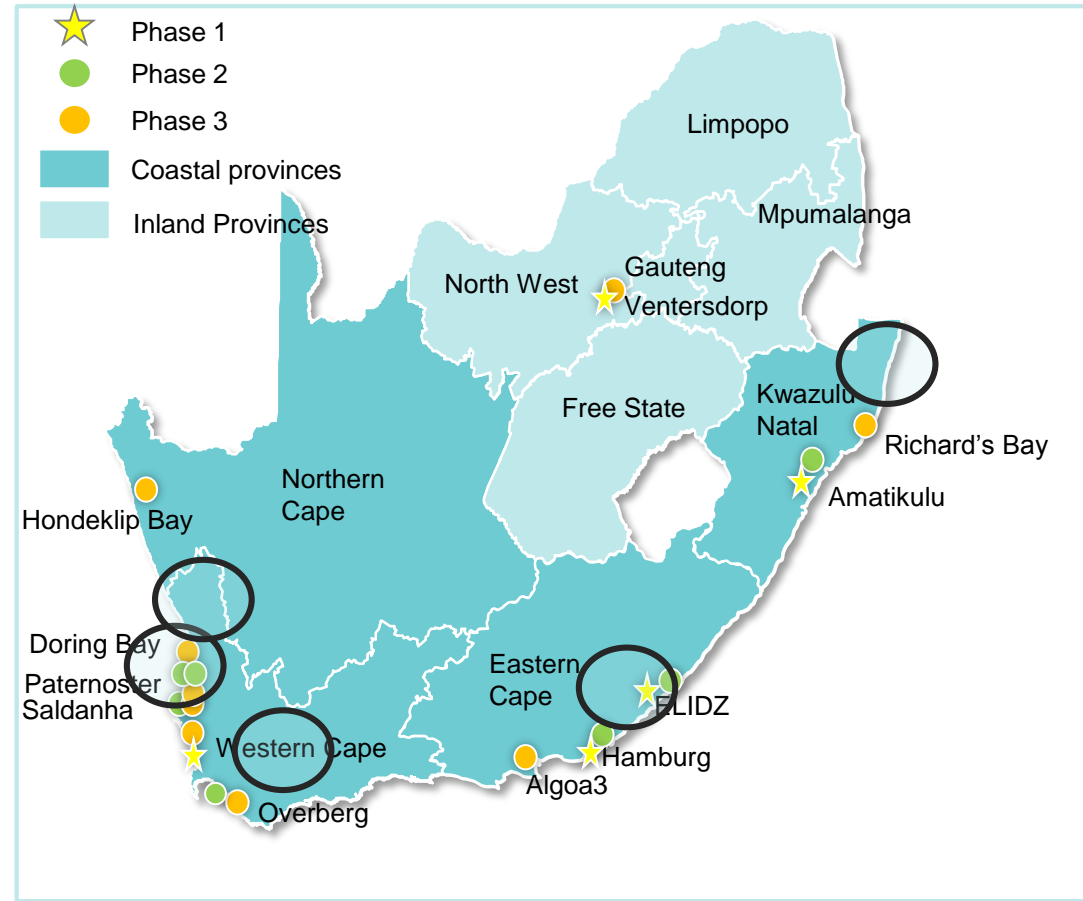
Doringbaai, Hamburg Oyster & Kob, HIK, Abagold, Blue Oceans Mussels, Saldanah Bay Oyster, Molapong, Richard's Bay, Diamond Coast Abalone


Leases

- DPW task team – first six leases approved
- TNPA – advertised & approved three leases

New projects

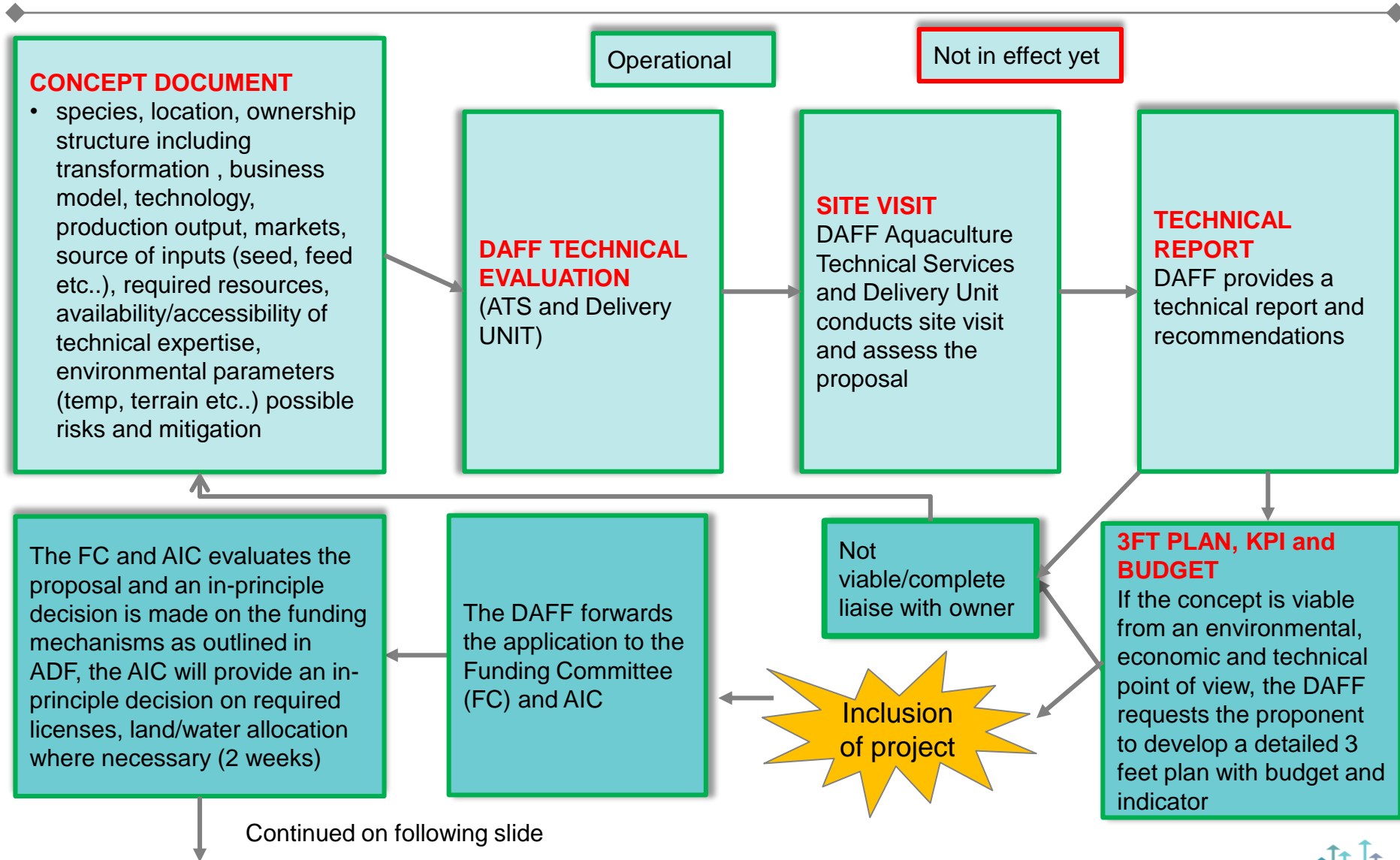
Oystercatcher Aquaculture Saldanha Bivalve Farm (new); Hermanus Salmon Blue Sapphire Pearls (expansion) Southern Atlantic (revised-new); West Coast Oyster Growers (expansion); Imbaza Mussels (expansion); African Olive (expansion).

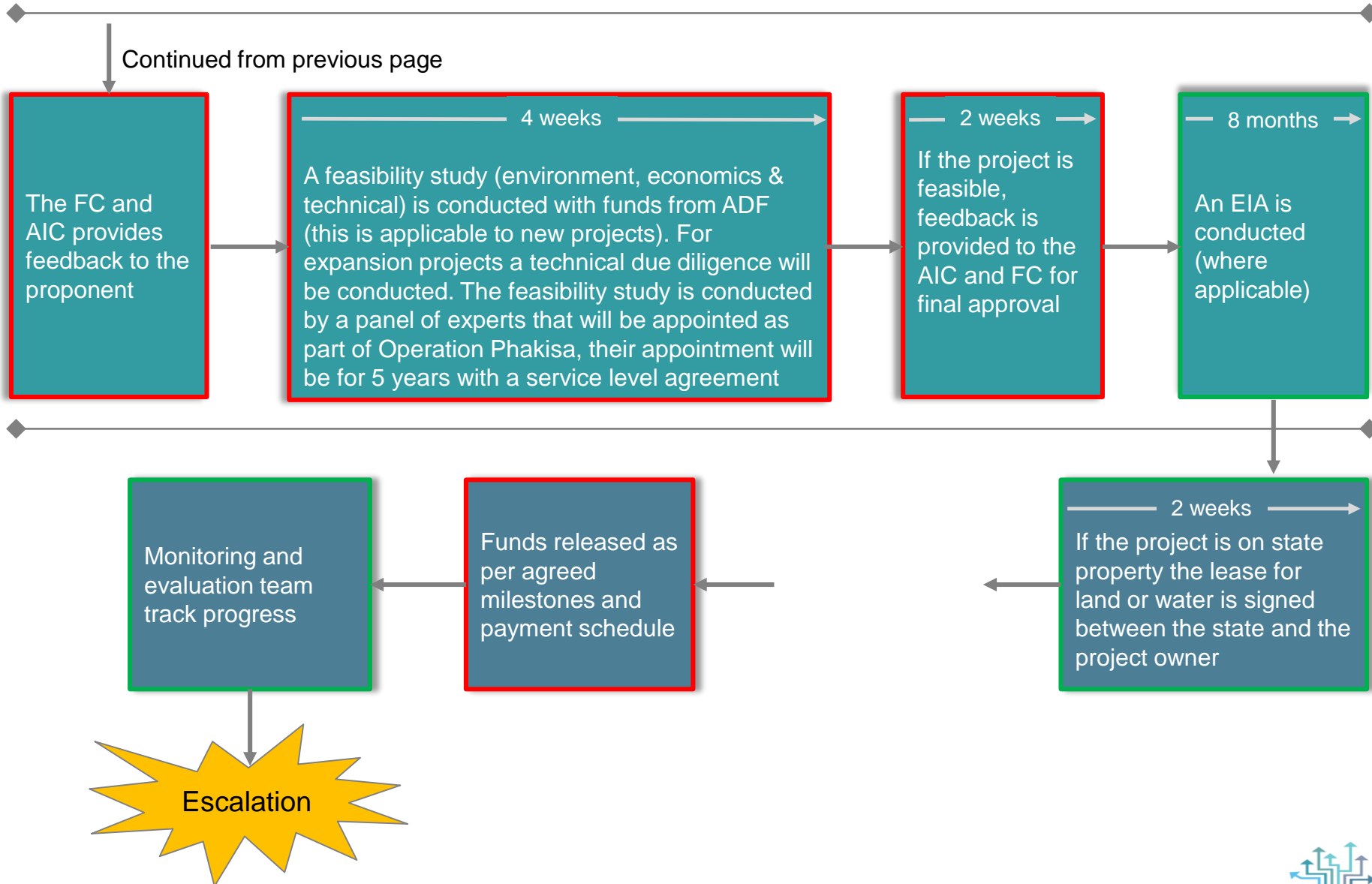




Total fish farms supported (ADEP, CASP, WFFP)	10 farms
Total leases from DPW approved	8
Total water lease space from TNPA approved	85 ha
Total committed industry investment	R305 098 773
Total committed government investment	R105 207 460
Total new jobs (realised and committed)	521

The Aquaculture initiative has achieved 36% completion of the 909 activities planned to date (report of the 07/08/2015).
*Change management process underway, therefore latest progress not reflected in report





3



Aquaculture - SUCCESSES





Aquaculture - SUCCESSES

6 ECONOMIX Grocott's Mail 18 SEPTEMBER 2015

Fish farm's first harvest

STAFF REPORTER
Siyazama Aquaculture, an aquaculture farm in Hamburg, recently reaped its first harvest of over 260 dusky kabejous (kob as it is commonly known). The Hamburg kob pilot project – which employs 21 people from the local community – is part of part of Operation Phakisa: Ocean's Economy, a Department of Agriculture, Forestry and Fisheries (DAFF) initiative aimed at uplifting communities through aquaculture-based enterprise development.

This first batch of fish has been growing since February and the farm (around 60 km from East London) has the capacity to produce 20 tons of kob per year.

The harvesting was done in collaboration with Oceanwise (Pty) Ltd, a leader in the farming of dusky kob in South Africa, based in the East London Industrial Development Zone.

The department decided to focus on kob farming in order to share the risks associated with it as it is fairly new in South Africa.

The harvesting process started with workers collecting the kob into nets, which were transferred into a container with slurry solution made out of ice and water. The produce was packed on ice into polystyrene boxes of 14 fish per box and transported to the Oceanwise facility. At the facility, the fish were weighed, gilled and gutted then repackaged for retailers. The produce was sold to Cape Town Fish Market's V&A Waterfront branch, Southern Cross Seafood Deli and Wild Peacock Food Emporium in Stellenbosch.

Liam Ryan, Managing Director of Oceanwise commented that the enthusiasm from the community was encouraging and that the fish were of great quality and had grown quickly and well. The farm team were proud of their achievements.

"It was really good, being part of the entire process, the quality of the dusky kob was good. I look forward to the next harvest," said Theminkosi Halana, Team Supervisor of the Hamburg project.

The Department of Agriculture, Forestry and Fisheries invites aspiring and new aquaculture project owners to register their projects to become part of Operation Phakisa: Unlocking the Economic Potential of South Africa's Oceans. More information on the Operation Phakisa website: www.operationphakisa.gov.za/operations/aef/aquaculture/

All applications and enquiries can be forwarded to: Aquaculturephakisa@daff.gov.za

The Siyazama Aquaculture team from Hamburg are proud of their first kob harvest. Photo: Supplied





How to Register New and Potential Aquaculture Projects

- The Department of Agriculture, Forestry and Fisheries hereby invite potential and new aquaculture project owners to register their projects to become part of Operation Phakisa: *Unlocking the Economic Potential of South Africa's Oceans*.
- Projects may be submitted any time however evaluations for inclusion will be conducted on a quarterly basis. For evaluation criteria please refer to the Aquaculture Lab report on the link below.
- Interested parties must refer to the **New Projects** folder available on the Operation Phakisa website:
www.operationphakisa.gov.za/operations/oel/aquaculture/
- All applications and enquiries can be forwarded to:
Aquaculturephakisa@daff.gov.za

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Marine Protection Services and Ocean Governance



Background and aspiration

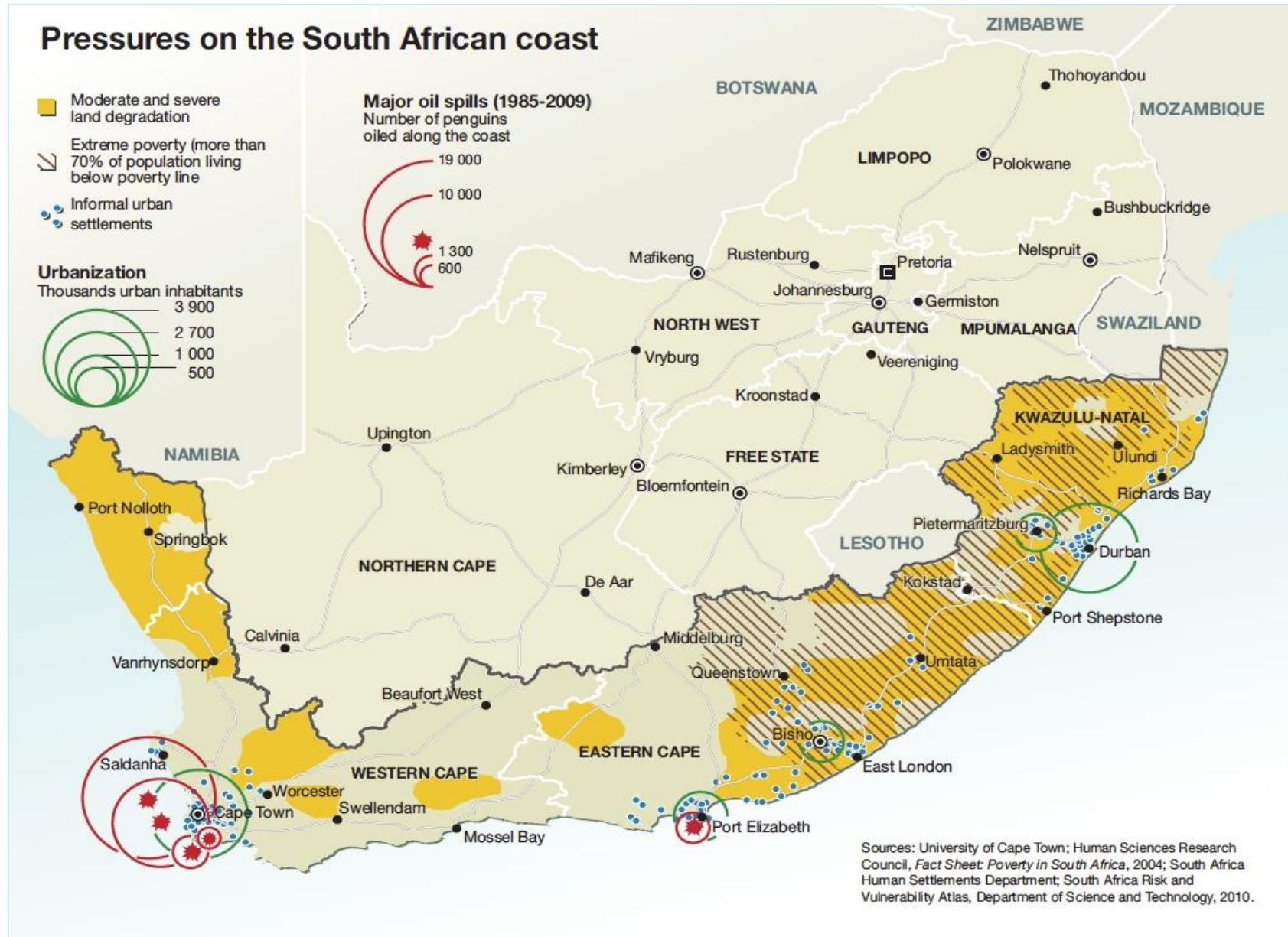
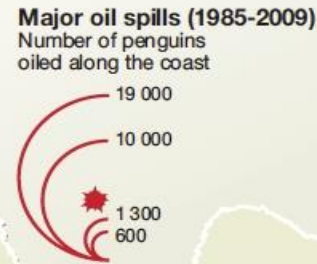
- South Africa has jurisdiction over a very large Exclusive Economic Zone (EEZ), with an extent of 1.5 million square kilometres
- South Africa needs to continuously balance the economic opportunities which our ocean space affords while maintaining its environmental integrity
- Given the size and complexity of our oceans, there is a growing recognition that a sectoral approach does not allow for maximising economic opportunities, ensuring environmental protection or increasing our understanding of the ocean
- To implement an overarching, integrated ocean governance framework for sustainable growth of the ocean economy to maximise socio-economic benefits whilst ensuring adequate ocean environmental protection within the next 5 years

Outputs and impact

- The Marine Protection Services and Governance (MPG) Delivery Unit (DU) has been established for facilitation, coordinating and implementing of the initiatives. The lab identified 10 initiatives to be implemented by 2019 that will facilitate:
 - The development and implementation of an overarching, integrated ocean governance framework by a way of a Marine Spatial Planning Legislation.
 - The protection of the ocean environment from all illegal activities and promote its multiple socio-economic benefits with results by 2017
 - The delivery of a National Marine Spatial Planning Framework in order to enable a sustainable ocean economy
- All the 10 MPG initiatives are lead by initiatives owners and driven by workings groups responsible for continuous implementations, monitoring and reporting on progress.

Pressures on the South African coast

- Moderate and severe land degradation
- Extreme poverty (more than 70% of population living below poverty line)
- Informal urban settlements



Sources: University of Cape Town; Human Sciences Research Council, *Fact Sheet: Poverty in South Africa*, 2004; South Africa Human Settlements Department; South Africa Risk and Vulnerability Atlas, Department of Science and Technology, 2010.



Marine Protection Services and Ocean Governance

Integrated Ocean Governance and Protection

Integrated framework and governance



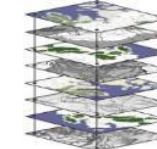
- 1 Ministerial Committee and Secretariat to govern activities
- 2 Enhancement of legislation for the Integrated Coastal and Oceans Management Act or Oceans Act
- 3 Review of ocean-related legislation
- 4 Accelerated capacity-building intervention in ocean governance

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

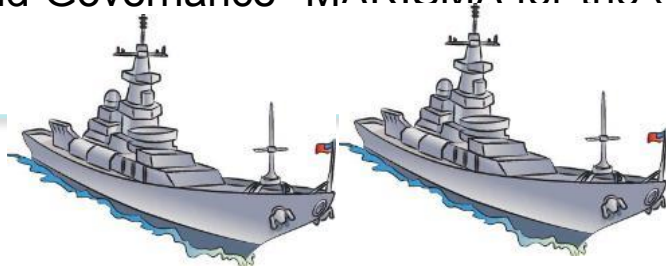


Short Term Initiatives

- The Marine Protection Service and Governance seeks to achieve an enabling environment for sustainable oceans development.

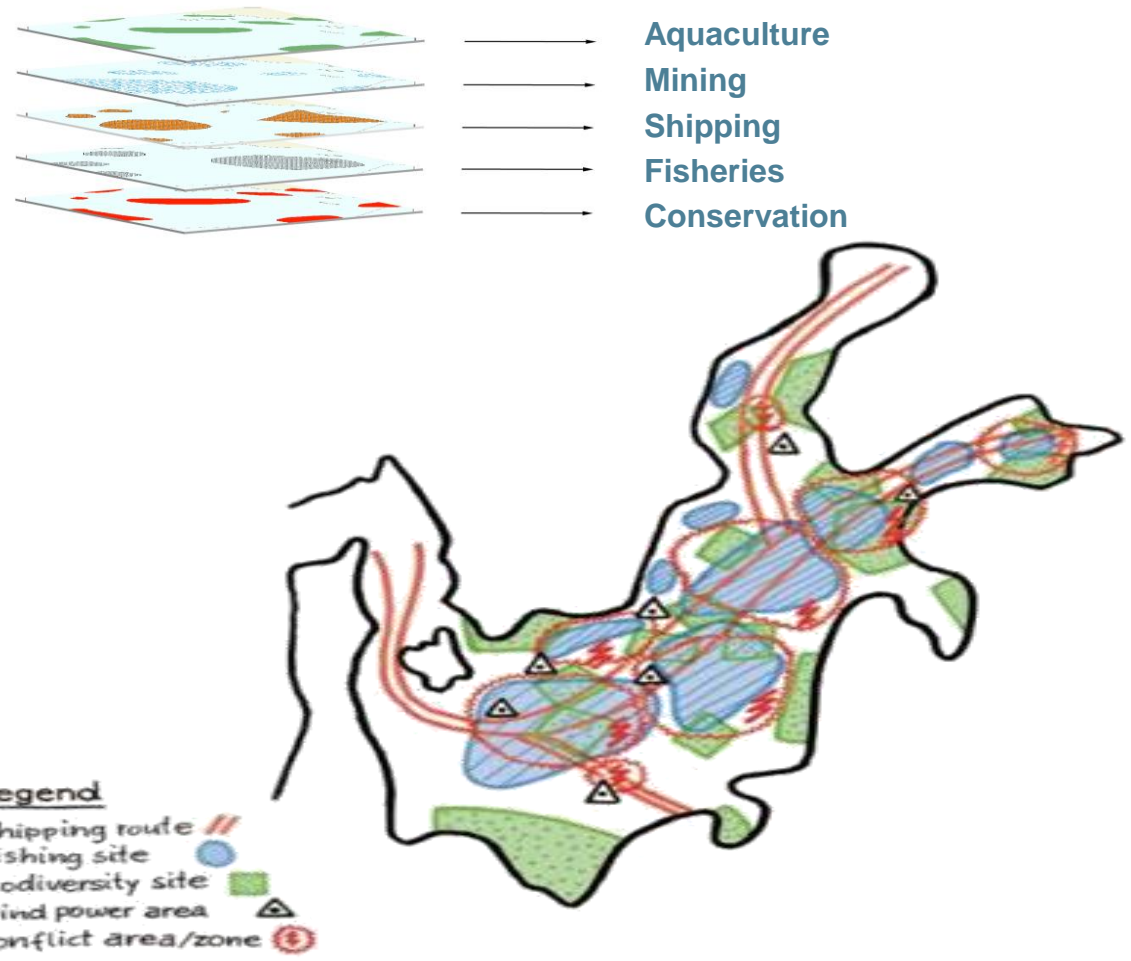
Short Term Initiatives by 2019:

- The establishment of working groups for the coordinated ocean sector implementation of the MPG lab initiatives.
- The development of the Marine Spatial Planning legislation for allocation of space and resources.
- Council for Scientific and Industrial Research / Meraka Institute appointed. Agreement reached for a period of 5 year project.
- The Gazetting of proposed 21 Marine Protected Area's representative network for public comments
- The technical and financial support from Benguela Current Commission (BCC) through the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH on the regional project "Marine Spatial Management and Governance" MARISMA for the development of the National Framework for Marine Spatial Planning.



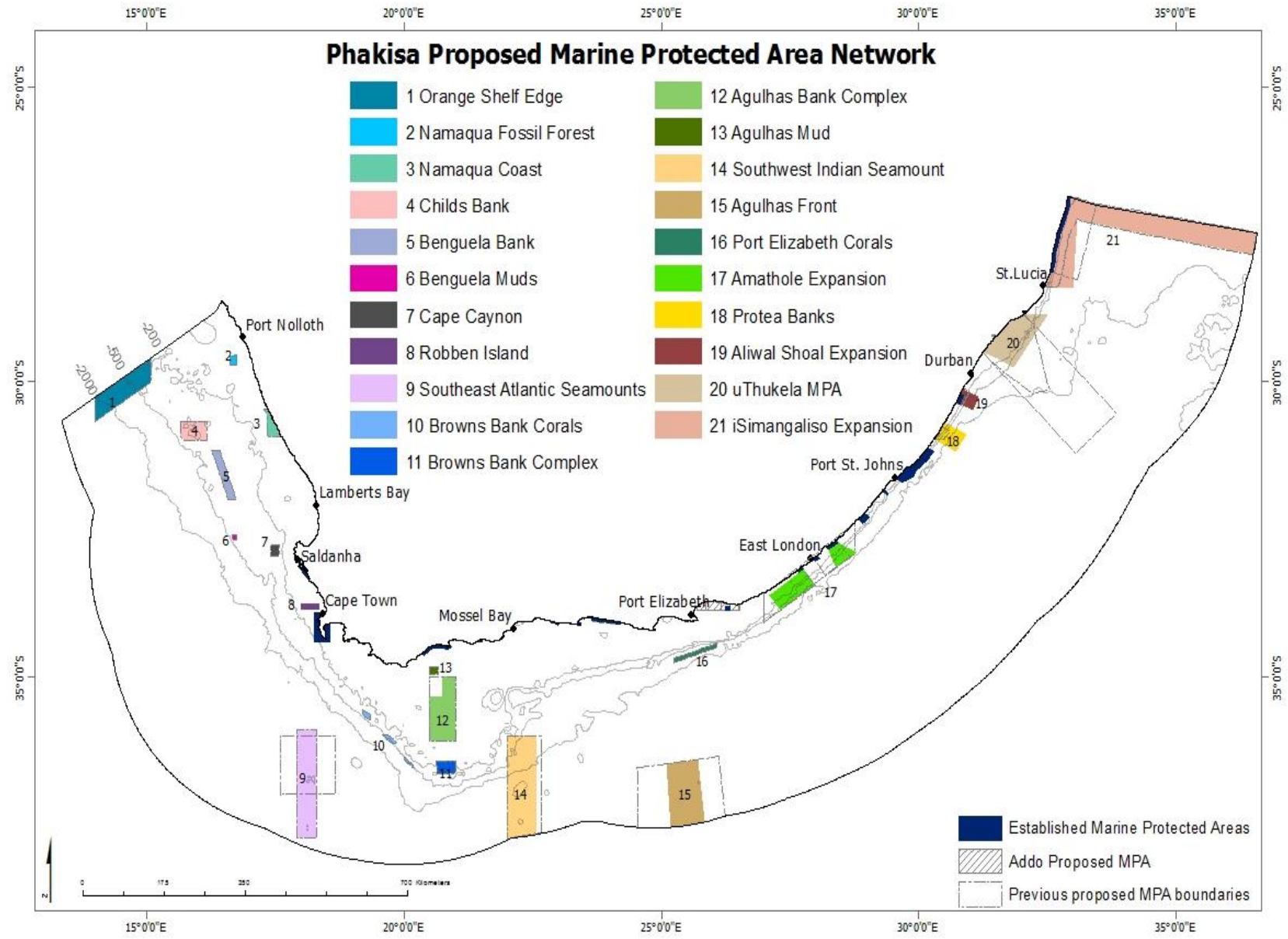
By identifying Conflict Zones, the Marine Spatial Planning (MSP) process will then be able to determine the appropriate zoning and usages

Sample Conflict Map



Sample Zoning Plan





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Small Harbours Development



Ensure territorial integrity through the revitalisation of the Small Harbours





Access to government maritime infrastructure





Ensure inclusive economic growth through the empowerment of **emerging fishing communities**



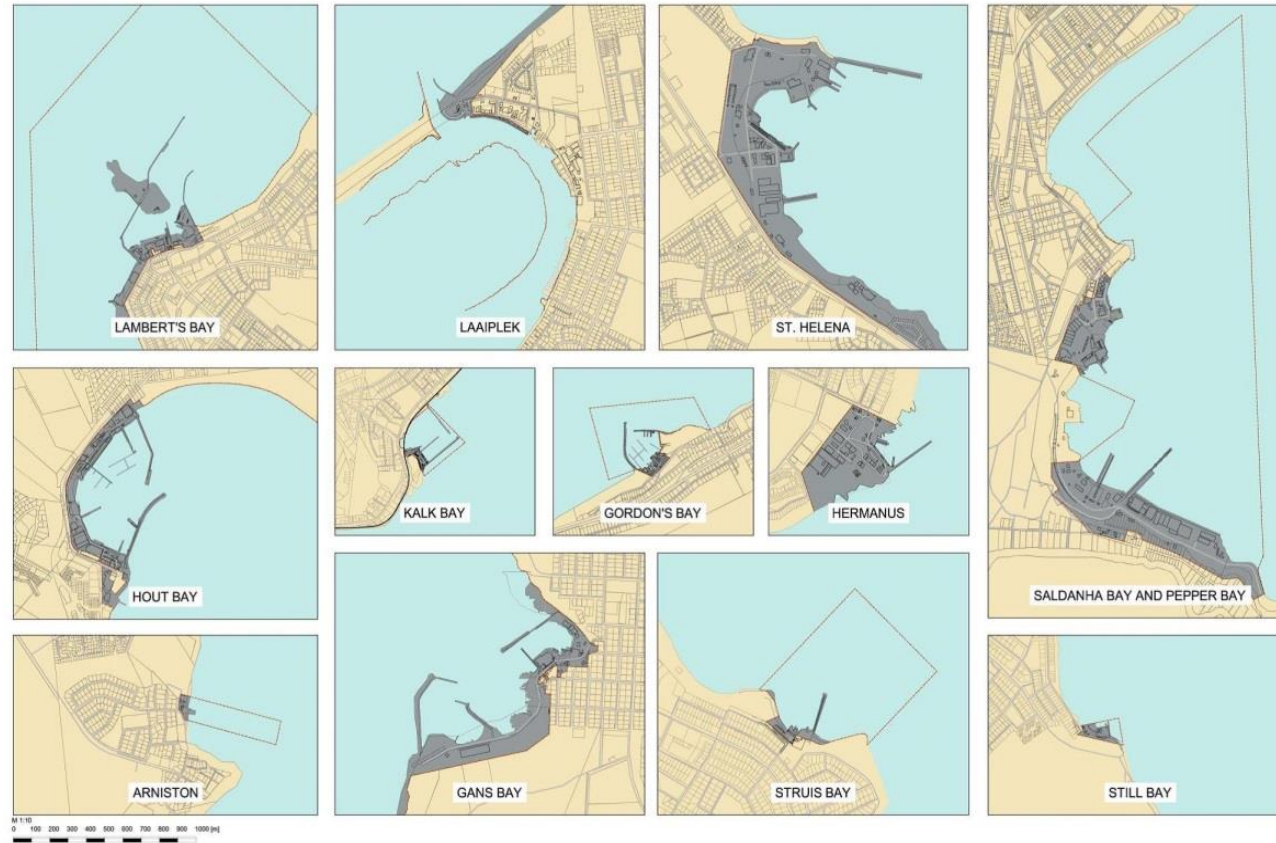


Empower coastal communities in skill development,
education and enterprise development





Energise the growth of coastal infrastructure







Critical infrastructure projects identified by DPW and DAFF to be undertaken within the 13 Proclaimed Fishing Harbours during 2015/16, followed up by preventative maintenance for the same over the next three (3) years:

- Repairs and upgrade of slipways;
- Shore crane replacements;
- Dredging of harbour basins;
- Repairs to wooden jetty's;
- Removal of sunken vessels;
- Security installation and operations; and
- Infrastructure repairs.





The following un-proclaimed small harbours have been identified and have potential for both harbour infrastructure, marine and offshore aquaculture, small town precinct development, tourism, and EPWP job creation:

Harbour name	Harbour name
Port Nolloth	Port Alfred
Boegoebaai	Cape St Francis
Hondeklipbaai	Hibberdene
Port St Johns	Port Shepstone
Port Grosvenor	Port Edward



Operation Phakisa and Small Harbour Leases streamlined and aligned with the development principles associated with the Spatial Economic Development Framework (SEDF) projects.

Aquaculture leases awarded:

- Saldanha Bay Oyster Company, Pepper Bay Harbour, Saldanha
- West Coast Oyster Growers, Pepper Bay Harbour, Saldanha
- Emakulema Mussels, Sapphire Pearls and Southern Atlantic Sea Farms (Joint Venture), Saldanha Bay Harbour, Saldanha
- Imbaza Mussels Pty Ltd, Blue Ocean Mussels and African Olive (Joint Venture), Pepper Bay Harbour, Saldanha
- Doring Bay Development Trust, Doring Bay
- Department of Science and Technology (DST)/Stellenbosch University, Hondeklip Bay

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Coastal and Marine Tourism



An **analysis is required** to determine the current and potential future **contribution of Coastal and Marine Tourism to the tourism economy.**



- Promotion of blue flags as a tourist attraction (marketing).
- Boat launching facilities and recreational fishing (licenced).
- Mini retail facilities (food, beverage, curio etc.) within the beach precinct.
- Provision of visitor information services.
- Provision of coastal tourism infrastructure i.e. ablutions facilities, parking, recreational facilities (braai areas, pools etc.) – operated in partnership with the private sector.



An aerial photograph of a large, powerful ocean wave breaking, with white foam visible on the right side. The water is a deep blue color.

OPERATION PHAKISA

***Moving the Oceans Economy
Forward...***