



REPUBLIC OF SOUTH AFRICA



## Operation Phakisa: Unlocking the Economic Potential of South Africa's Oceans

# AQUACULTURE

Department of Agriculture, Forestry & Fisheries  
Ocean's Economy Review Workshop

15 October 2015

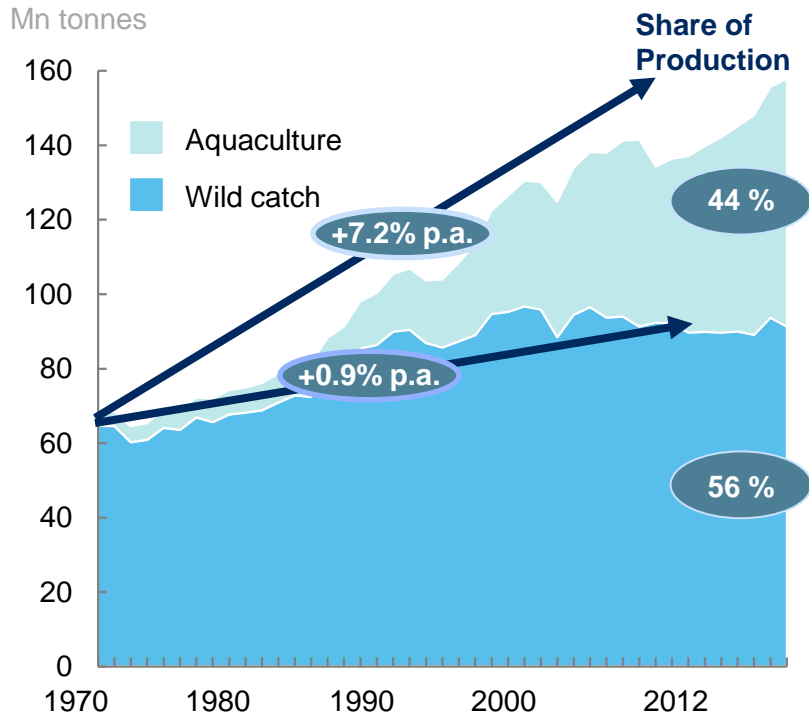
# Contents

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1. **The Lab:** Status and challenges facing the sector and initiatives
2. **High level achievements**
3. **Lessons learnt,** gaps and constraints identified
4. **New projects** and contact details
5. **Change Management Process**

# Globally, Aquaculture contributes to almost half of total supply

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



## Factors influencing supply

### Global aquaculture is flourishing

- Of the 141 million tonnes of fish consumed, over 70 million tonnes come from aquaculture which about 50%
- Aquaculture production has shown strong growth of 7.2% p.a. from 1970 to 2012.
- China accounts for almost 70% of global aquaculture production

### Supply vs Demand

- We will require an additional 50 million tonnes of fish to feed the world population by 2030 and this additional fish production will come mainly from aquaculture

### 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

<sup>1</sup> Fish production refers to fish and shellfish production

SOURCE: FAO State of World Fisheries and Aquaculture 2014; FishStatJ

## 2. During the lab process

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

“...We don’t have the economies of scale to be commercially viable ...”

“...It’s taken 28 months to get a single permit to expand my farm...”

“...we should be supplying salmon and trout instead of importing 1000s of tonnes...”

“...our R&D should focus on meeting market demand in South Africa...”



“... The way the banks price risk is crazy... few people really understand the nature of our business...”

“...PDIs only make up less than 10% of the sector...”

“...I lost all my fish since there was no fish vet...”

“...High set-up costs are a huge barrier to entry in this sector...”

“...We don’t have the economies of scale to get quality feed from suppliers...”

# Operation Phakisa: Aquaculture lab aspirations

## 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...**” from 4 000 tons (2013)

“...The Aquaculture sector in South Africa now **employs 15,000 people in direct and full time jobs.....**” from 2227 (2013)

“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...**” from R0.7 bn

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



Abalone



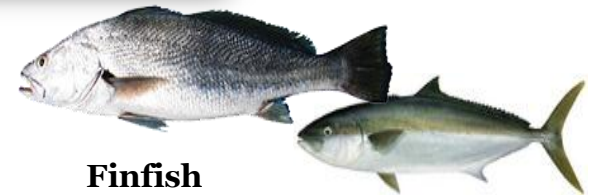
Oyster



Mussels



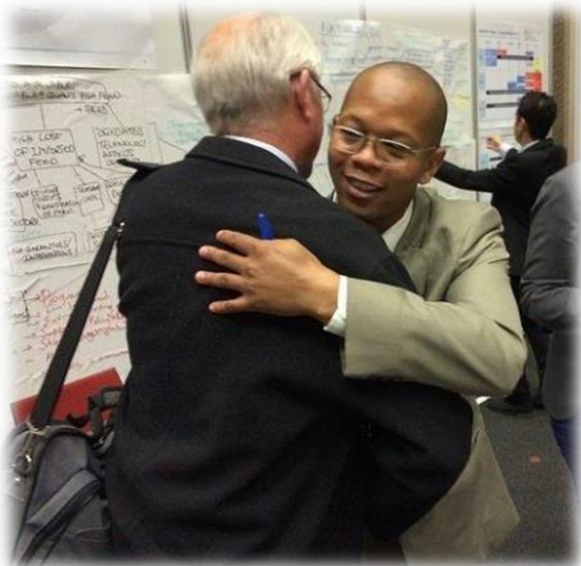
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# Collaboration, information sharing, implementation plans developed

6 weeks of consecutive discussions and planning with government, industry, academia and NGO's



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

★ Initial short-term targets

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

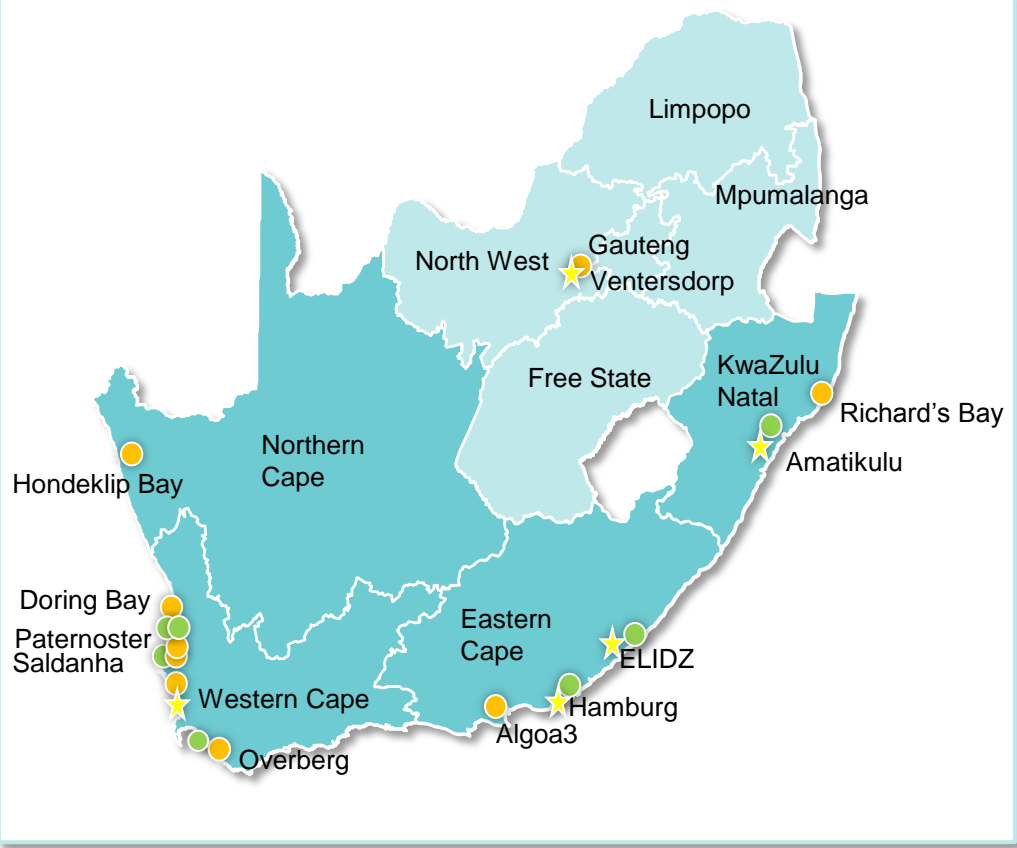
Market





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



- ★ Phase 1
- Phase 2
- Phase 3
- Coastal provinces
- Inland Provinces







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 - Ornamentals	
★	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. Post the lab

## Phase 1: Implement initiatives in 6 Quick wins

  **1a** Implementational projects

  **3** Establishment of an Inter-Departmental Authorisations Committee

  **5** Establishment of an Aquaculture Development Fund

  **7** Coordination of industry-wide marketing efforts

- ✓ Individual engagement with TNPA and DPW established to unblock issues (access to land and water)
- ✓ Initial AIC meeting held on the 8<sup>th</sup> of September 2015
- ✓ Detailed analysis of business process to be undertaken. This will be followed by recommendations of streamlined business

- ✓ Working group established
- ✓ UK and China investment seminars Total committed industry investment R305 098 773
- ✓ Total committed government investment R105 207 460
- ✓ Prioritised in new funds (Jobs fund, etc)

- ✓ Received interest from Iran to supply 500 tons/month of tilapia.
- ✓ Taiwan has also expressed interest to source oysters from SA.
- ✓ Engaged various industry bodies regarding the establishment of AquaSA (statutory body under the Marketing of Agricultural Products Act)
- ✓ AquaSA Model drafted and work shopped on the 16<sup>th</sup> of July 2015.
- ✓ Producers identified regarding feed and product composition tests.
- ✓ Operation Phakisa farmers and industry invited to participate in outward investment mission to Chile (Nov 2015).

# Progress on /


- ✓ Environmental Impact Assessment (EIA) – Basic assessment required (2 years to 8 months)
- ✓ Draft Alien Species Management Act (green zone)
- ✓ Strategic Environmental Assessment
- ✓ General a
- refined.
- ✓ Aquaculture
- complete

- ✓ **NRCS (National Regulator for Compulsory Specifications) was requested to undertake sampling - MOU in place between DAFF/NRCS**
- ✓ **Working Group established for food safety standards (bivalve sector).**
- ✓ **Shellfish Monitoring and Control Programme implemented.**

- ✓ procurement
- in respect of aquaculture projects
- and products.
- ✓ Require assistance from s
- drive this initiative meeting
- the DST and the D

- ✓ Delivery unit appointed
- ✓ Skills Working Group established

**8** Preferential Procurement of Aquaculture products



# Advertisement: City Press (30/08/15) and Farmer's Weekly (18/09/15)



## Request for new Aquaculture Projects-Operation Phakisa

Aquaculture is one of the sectors which form part of Operation Phakisa under the Ocean's Economy in South Africa. Operation Phakisa is an initiative of the South African government which aims to implement priority economic and social programmes better, faster and more effectively and was launched by the President of the Republic in October 2014.

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 and the link below.

For more information on the criteria and application requirements, interested parties must refer to the **New Projects** folder available on the Operation Phakisa website: [www.operationphakisa.gov.za/operations/oel/aquaculture/](http://www.operationphakisa.gov.za/operations/oel/aquaculture/)

All applications and enquiries can be forwarded to:  
[Aquaculturephakisa@daff.gov.za](mailto:Aquaculturephakisa@daff.gov.za)









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**12** projects are in the process of submitting applications post aquaculture lab conducted in July/August 2014 and **7** of these formally incorporated

Project Name	Species Name	Potential Production	Potential Jobs
Oystercatcher Aquaculture Saldanha Bivalve Farm - New	Pacific Oysters 	4000 tons	78 on farm (228 in total)
Hermanus Salmon	Salmon	500 tons	50 jobs on farm (113 in total)
Blue Sapphire Pearls - Expansion	Pacific Oyster, Mussels and Abalone 	60 tons oysters, 20 tons mussels	27 jobs on farm
Southern Atlantic (Revised) -New	Mussels 	1000 tons	12 direct jobs
West Coast Oyster Growers – Expansion	Oysters/Mussels 	250 tons mussels, 83 tons of oysters	21 people
Imbaza mussels - Expansion	Mussels 	400 tons additional	20 jobs
African Olive - expansion	Mussels 	600 tons	15 jobs

**Additional 2337 tons mussels (443 tons import substitution), 500 tons salmon and 4143 tons oysters need access to export market**

## 4. High level achievements

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 investment (Industry & Gov)	R410 306 233
Total new jobs (realised and committed)	521 (23% ↑)
Production increase	33.56 tons

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

# Initiative 1: 24 Catalyst Projects

## Progress

- Nine projects are on schedule or ahead of schedule (jobs, production, GDP and transformation) \*Six expansion projects and three new projects
- These projects include: **Doringbaai, Hamburg Oyster & Kob, HIK, Abagold, Blue Oceans Mussels, Saldanah Bay Oyster, Molapong, Richard's Bay, Diamond Coast Abalone**

## Leases

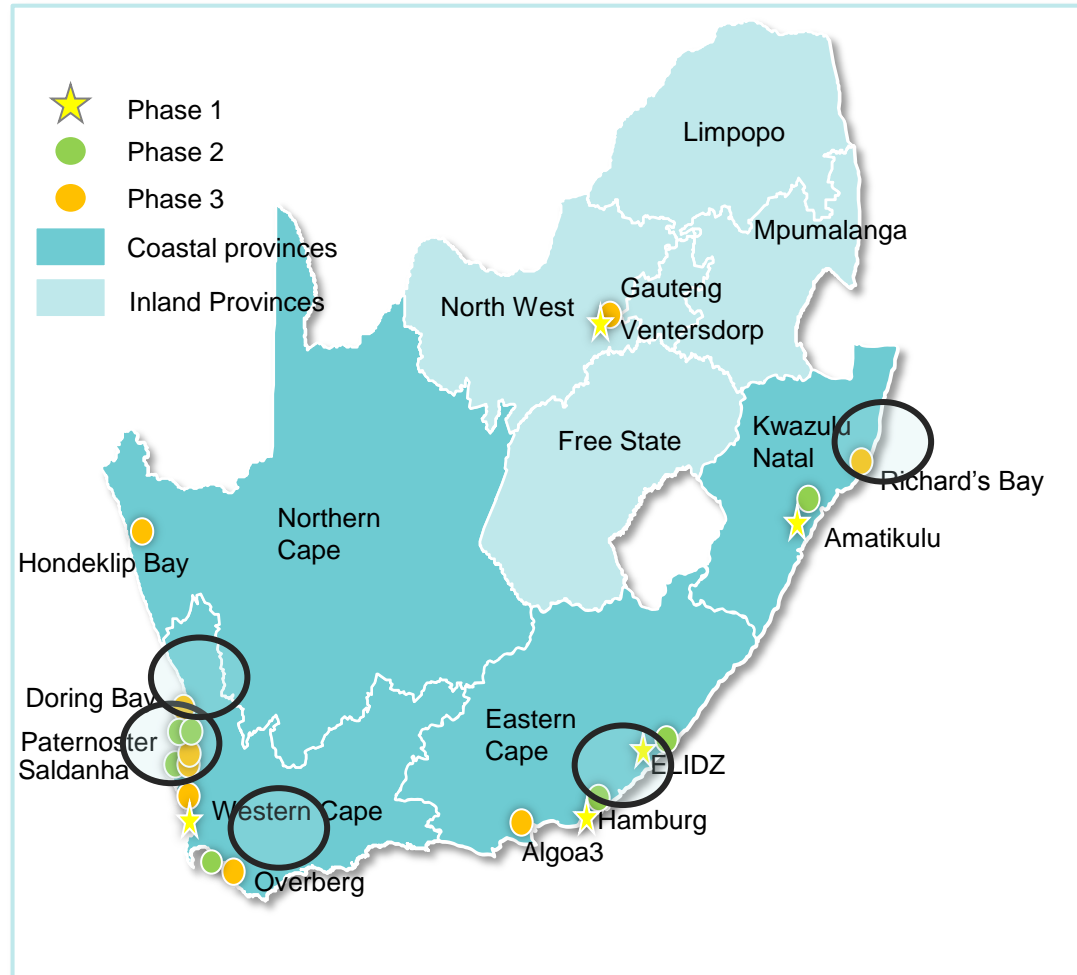
- DPW task team – first six leases approved
- TNPA – advertised & approved three leases

## Highlights

- **Doring Bay**
- **Abagold**
- **Hamburg**
- **Richard's Bay**
- **Saldanah Bay**

## Challenges for other 15

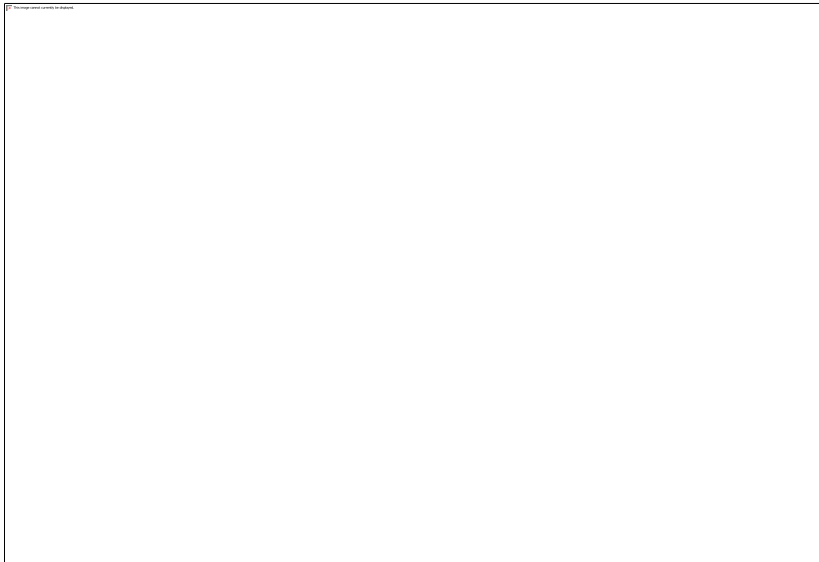
- Market access (funding available for initiative 7)
- Access to land/water (DPW/TNPA working groups)
- Infrastructure (Assistance from NAMC, SIP 11)
- Funding and investment (funding working group)



# Dooringbaai Abalone (Pty) Ltd



Current operations



## PROJECT PROGRESS

- Secured long term lease with DPW
- EIA underway
- ADEP funding sourced, R960 000 from DAFF/Department of Trade and Industry (DTI) for expansion of farm.
- IDC funding application was successful, R6.9 million received.



# Abagold Expansion

Construction of abalone farm



## PROJECT PROGRESS

The project is currently ahead of schedule with:

- Construction of the expansion: Four unit buildings constructed, 640 of the 800 tanks have been placed. Three of the four units have had water and air distribution systems installed, spat have been placed in two of the grow-on production units
- Funding: 11 million of ADEP funding approved
- Fish feed plant: built and in operation since September 2015 which improves access of industry to quality and affordable feed! First batches of feed have been registered.



Fish feed plant

# Hamburg: successful first harvest



Chairman of Siyazama Cooperative



Processing the catch



Grocott's Mail, 18 Sept 2015



# Hamburg press statement- media coverage

## Co-op enters Cape seafood big leagues

Sep 16 2015 20:00 Dane McDonald



Cape Town – A small-scale aquaculture cooperative has sold its first batch of 'kabeljou' to three high-end seafood restaurants in the Western Cape.

The 277kg batch of dusky kob or 'kabeljou' was sold to Cape Town Fish Market's V&A Waterfront branch, Southern Cross Seafood Deli and Wild Peacock Food Emporium in Stellenbosch.

The Siyazama Aquaculture Cooperative is situated in Hamburg, Eastern Cape and employs 21 people from the surrounding community.

The farm forms part of the broader Operation Phakisa project with which the government seeks to tap the economic potential of South Africa's oceans.

Department of Agriculture, Forestry and Fisheries (Daff) spokesperson, Palesa Mokomele, told Fin24 that the business model was based on the combination of oyster and kob farming.

The carrying capacity of the kob farm was R1.2m and of the oysters farm R4m, she said.

The fish were processed at the Oceanwise processing facility where they were weighed, gilled and gutted then repackaged for retailers.

Liam Ryan, Managing Director of Oceanwise said that "enthusiasm from the community was encouraging and that the fish were of great quality as they experienced good growth and food conversion".



Picture: Getty Images

### RELATED ARTICLES

- Operation Phakisa to drill 30 exploration wells in 10 yrs
- Zuma: SA to spend R9.2bn on Saldanha oil, gas hub
- SA promotes Operation Phakisa in UK
- Africa project to tap ocean potential, SA's Phakisa takes off
- Sustainable fishing could produce more fish
- Falling sardine numbers may prompt fishing ban - US

# Richard's Bay



Top view of sea cage

## PROJECT PROGRESS

- Prioritised through Operation Phakisa to receive DST funding
- Deployment of first cages (four)
- Transfer of 25 000 fingerlings
- Rigorous environmental monitoring



Fingerlings



Tsepo on his workboat  
"Lucky Too"



# Saldanah Bay Oyster Company

Boat purchased with ADEP funding



## PROJECT PROGRESS

- Lease space approved by Department of Public Works
- Funding: 1, 9 million of ADEP funding received
- Long term leases approved by TPNA





## 6. Lessons learnt

# Lessons learnt, gaps and constraints identified

## Dedicated Staff

- Vital that there is capacity and dedicated staff that will continue to lead the momentum (reporting, facilitation, oversight) after the lab before the lab is finalised. Ideally the delivery lab should be seconded or set up before the lab commences otherwise there is a loss of momentum and lack of continuity

## Funding

- Some dedicated funding should be available upfront (operational and projects) to implement initiatives at the start to avoid the first few months spent sourcing funding and not implementing initiatives.
- Include in the lab process.

## Labs

- The labs need to be planned fairly well in advance, this allows key stakeholders to plan for the intensive six week process and ensure representation by all the relevant stakeholders.

# Lessons learnt, gaps and constraints identified

## Working Groups

- Best to be created within the Lab and continued as part of the implementation as most of the initiatives are cross cutting and require collaborative input.

## Top-down Approach

- The initiatives should be presented to all the relevant DG's after the lab and they should brief their directors to ensure that buy-in and implementation happens quickly.

## Momentum Kept

- After the labs continued "reminders" and briefings should be done to ensure work does not slip back to business as usual.

## Lessons learnt, gaps and constraints identified

### Change Management

- There needs to be a certain level of flexibility in planning to allow for changes to plans and cater for external challenges as well as general project management decisions

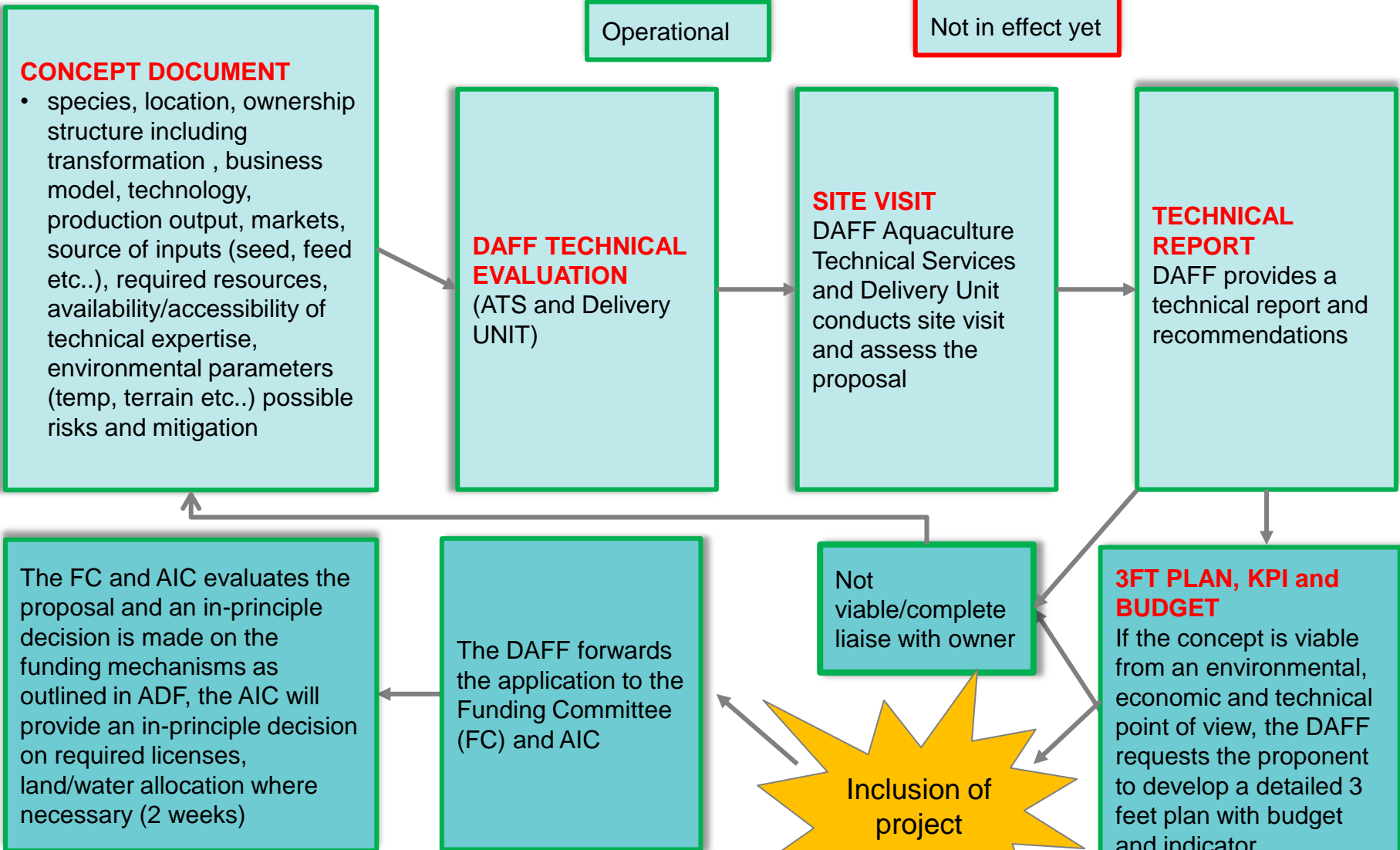
### Support Services

- Internal support services (HR, Legal, Supply Chain Management) of departments need to be briefed or engaged in order to adopt a new approach to operating to allow for implementation of initiatives

## 7. New projects



# Operation Phakisa Aquaculture projects submission process (1/2)



Operational

Not in effect yet

The FC and AIC evaluates the proposal and an in-principle decision is made on the funding mechanisms as outlined in ADF, the AIC will provide an in-principle decision on required licenses, land/water allocation where necessary (2 weeks)

The DAFF forwards the application to the Funding Committee (FC) and AIC

Not viable/complete liaise with owner

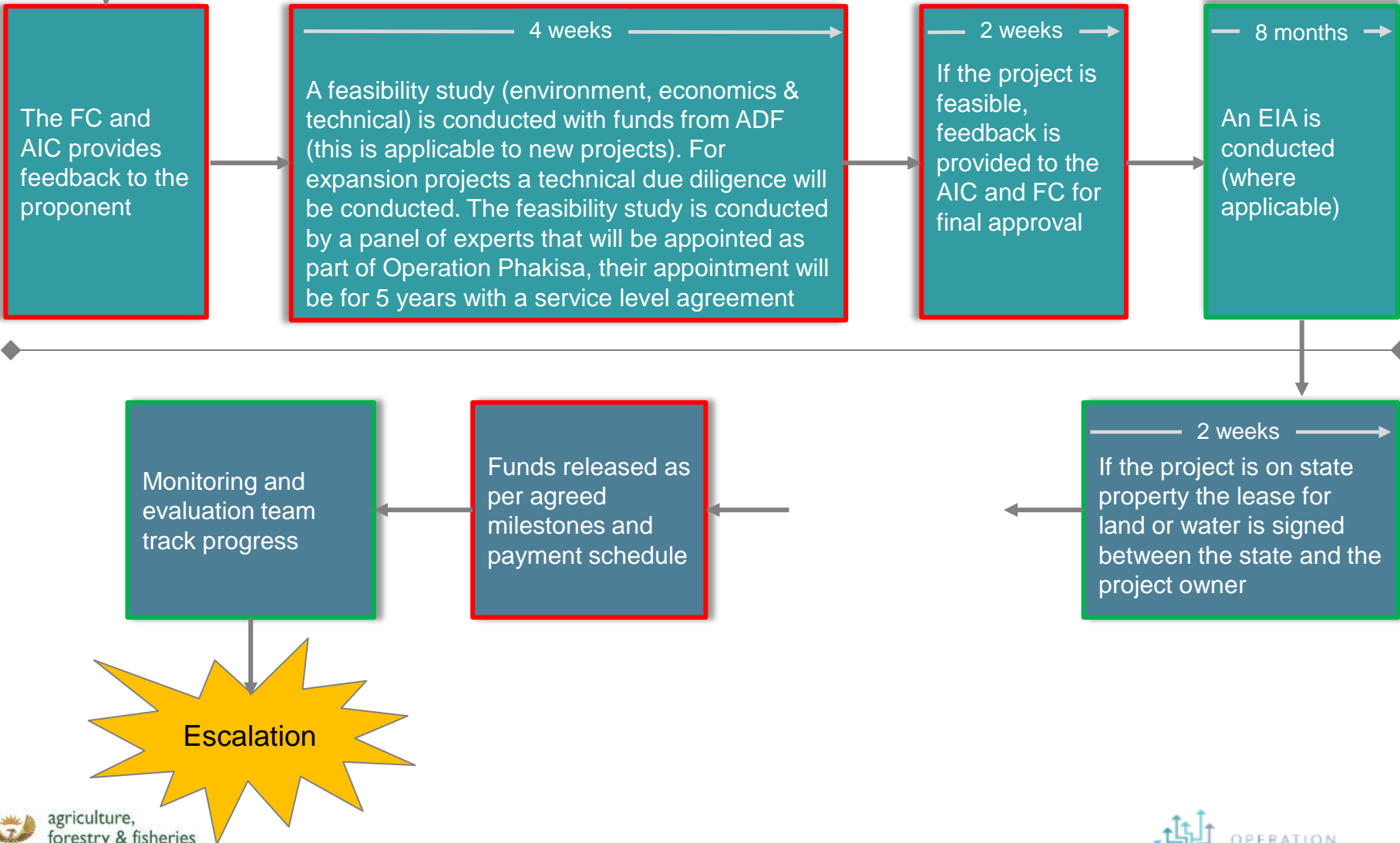


**3FT PLAN, KPI and BUDGET**  
If the concept is viable from an environmental, economic and technical point of view, the DAFF requests the proponent to develop a detailed 3 feet plan with budget and indicator

Continued on following slide

# Operation Phakisa Aquaculture projects submission process (2/2)

Continued from previous page



# The approach to project selection was guided by 3 principles, and 4 evaluation criteria

## Evaluation Criteria

1. Market attractiveness of species
2. Production readiness of project (time to stock fish for commercial production)
3. Planned scale of project
4. Availability of funding for project

## Principles

- Geographical diversity of Aquaculture activity
  - Participation by all coastal provinces
  - Freshwater species evaluated to include inland provinces
- Transformation
  - All considered projects should agree to strive towards the targets set forward in the Agri-BEE Charter
- Sustainable growth through balancing new projects and expansion projects

### Market attractiveness of species

- Projects deemed more commercially viable if they focused on a species with high demand in the market (local / international)

### Production readiness

- Projects that are closer to production would allow the sector to meet its 5-year growth aspiration

### Planned scale

- Projects that maximise economies of scale would contribute significantly to lab aspiration of 20,000 tonnes by 2019

### Availability of funding

- Projects deemed more commercially viable if they can show evidence of committed investors

**22** production facilities<sup>1</sup>

**2** dedicated commercial hatcheries

<sup>1</sup> Some production facilities include hatchery, processing plants as well as Abalone Ranching operations at different locations

# New Aquaculture Projects

## 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*.
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- All applications and enquiries can be forwarded to:  
[Aquaculturephakisa@daff.gov.za](mailto:Aquaculturephakisa@daff.gov.za)



# Contact Details

## OPERATION PHAKISA AQUACULTURE DELIVERY UNIT

### **New project enquiries:**

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Secretariat

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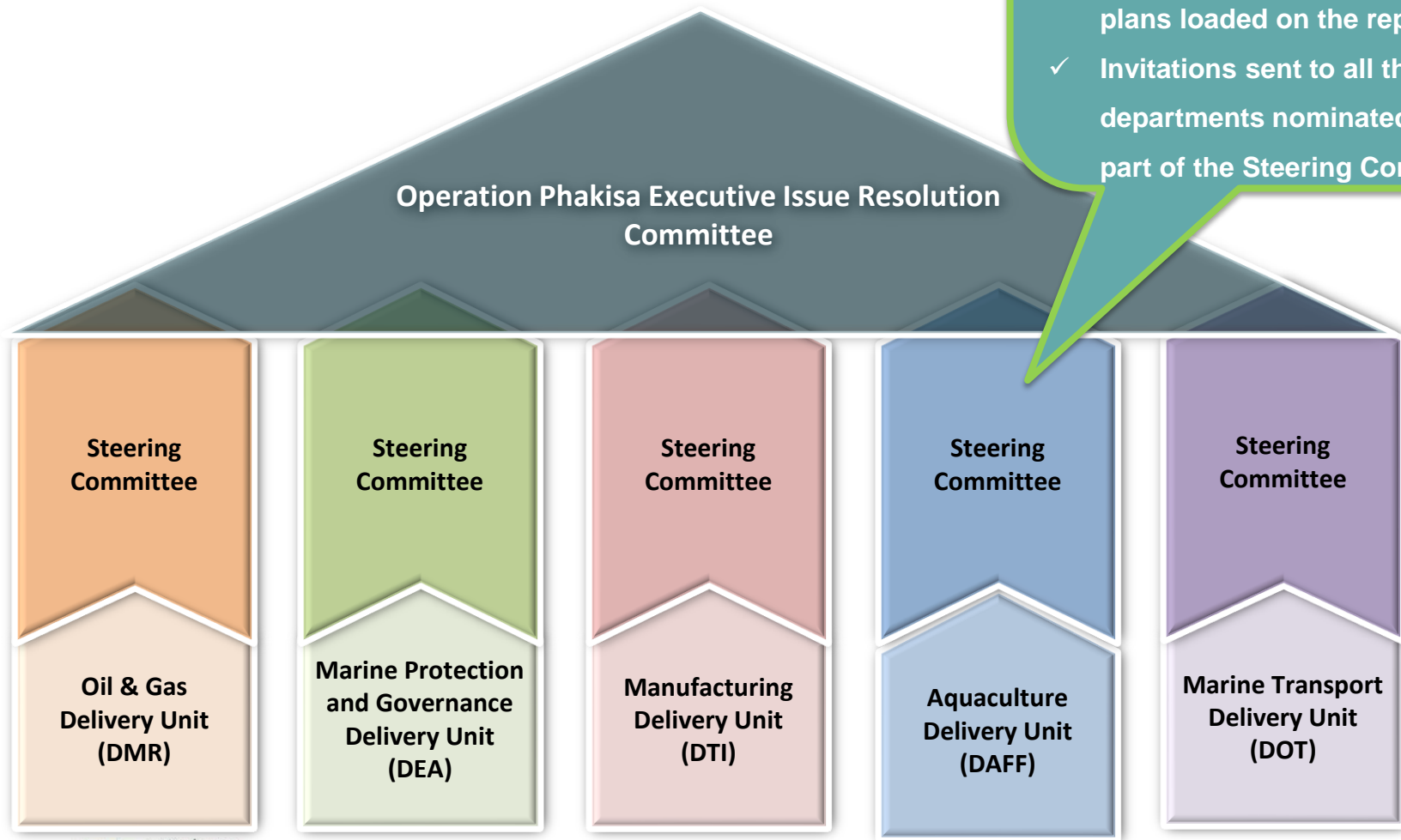
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# Thank you

# Phakisa Governance Structure

## Establishment of governance structures for Aquaculture



- ✓ Dedicated delivery unit with six staff members.
- ✓ Reporting occurs as scheduled, 3ft plans are in change management process and new plans loaded on the report.
- ✓ Invitations sent to all the departments nominated to be part of the Steering Committee.