



REPUBLIC OF SOUTH AFRICA



Unlocking the Economic Potential of South Africa's Oceans

Marine Protection Services and Governance
Final Lab Report

15 August, 2014

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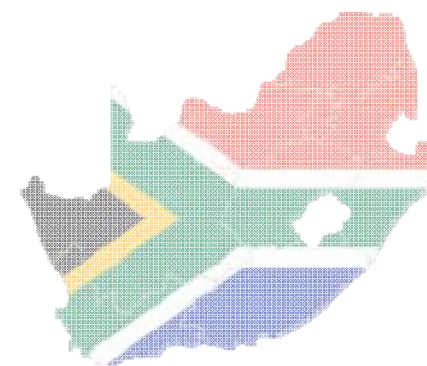


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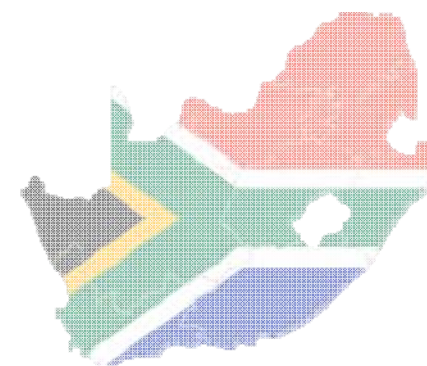
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Summary

South Africa has jurisdiction over a very large **Exclusive Economic Zone (EEZ)** of **1.5 mn km²**. Extended continental shelf claims will **double** the size of its ocean geography if successful. With such a large jurisdiction, **effective governance is critical** but will be challenging given the size and complexity of our oceans. Currently, the sectoral approach only gives a partial picture and it difficult to achieve balance. Effective ocean governance will need to **identify and manage interdependencies** across **socio-economic aspirations** and **environmental integrity**.

The **Marine Protection Services and Governance (MPSG)** Lab aspires to implement an **overarching, integrated governance framework for sustainable growth** of the ocean economy that will maximise **socio-economic** benefits while ensuring adequate ocean environmental protection within the **next five years** by:

- Developing an overarching governance plan by **March 2016**
- Protecting the ocean environment from all illegal activities and promoting its multiple socio-economic benefits with results by 2017, including a **Marine Protected Area (MPA) representative network**, **reducing illegal activities** and **monitoring water quality**
- Delivering a **National Marine Spatial Planning (MSP) Framework** by **December 2015**, a Regional (Sub-national) MSP Framework and a more detailed small-scale Marine Spatial (MS) Management Plan to enable a sustainable ocean economy

The MPSG Lab developed **10 key initiatives** to achieve the above objectives:

- Ministerial Committee and **Oceans Secretariat** to govern activities
- Enhancement of legislation into the **Integrated Coastal and Oceans Management (ICOM) Act** or **Oceans Act**
- Review of **ocean-related legislation**
- Accelerated **capacity-building** intervention in ocean governance
- Enhanced and Coordinated **Enforcement** Programme
- National ocean and coastal **information system** and **extending earth observation** capacity
- National Ocean and Coastal **Water Quality Monitoring** Programme
- Creation of an **MPA Representative Network**
- MPA/MSPG **Discovery, Research and Monitoring** Programme
- **MSP** Process

The initiatives will cost **ZAR 1.7 bn** over the next five years, **53%** of which will come from **already committed** programmes. Implementation of all initiatives will be overseen by the **Oceans Secretariat**, with primary support from the **Department of Environmental Affairs (DEA)**, **Department of Agriculture, Forestry And Fisheries (DAFF)** and **Department of Science and Technology (DST)**.

OVERVIEW

The Lab outcomes are the collaborative effort of more than 40 representatives from the Government, private sector and civil societies

NOT EXHAUSTIVE



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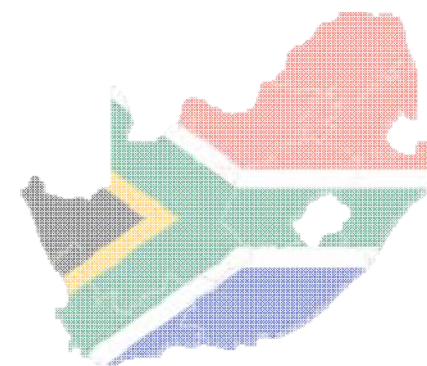
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Glossary of terms

ACEP	African Coelacanth Ecosystem Programme	HEI	Higher Education Institute
CBD	Convention of Biological Diversity	HOS	Head of Secretariat
CSIR	Council for Scientific and Industrial Research	ICOM	Integrated Coastal and Oceans Management
DAFF	Department of Agriculture, Forestry and Fisheries	ICM	Integrated Coastal Management
DEA	Department of Environmental Affairs	IMC	Inter Ministerial Committee
DG	Director General	KPI	Key Performance Indicators
DHET	Department of Higher Education and Training	KZN	KwaZulu Natal
DIRCO	Department of International Relations and Cooperation		Memorandum of Understanding
DMR	Department of Mineral Resources		Marine Protected Areas
DOA	Department of Agriculture, Forestry and Fisheries		Marine Protection Services and Governance
DOD	Department of Defence		Marine Spatial Management Plans
DOE	Department of Environmental Affairs		Marine Spatial Plan
DOJ	Department of Justice and Constitutional Development		National Environmental Management Act
DOT	Department of Transport		National Environmental Management of the
DPE	Department of Public Enterprises		ans
DPME	Department of Performance Monitoring and Evaluation		Non-governmental Organisation
DRuM	Discovery, Research and Monitoring	NM	Nautical Miles
DST	Department of Science and Technology	NPAES	National Protected Area Expansion Strategy
DWS	Department of Water and Sanitation	O&C	Oceans and Coasts
EEZ	Exclusive Economic Zone	OFO	Organising Framework for Occupations
EDD	Economic Development Department	OT	Occupational Team
EMI	Environmental Management Inspector	NT	National Treasury
EP	Environmental Programme	SA	South Africa
EPWP	Expanded Public Works Programme	SAMSA	South Africa Maritime Safety Authority
FCO	Fishery Control Officers	SANSA	South Africa National Space Agency
FOSAD	Forum of South Africa's Directors General	SCP	Security Cluster Programme
HBU	Historically Black University	SOP	Standard Operating Procedure
		TOR	Terms of Reference
		TWG	Technical Working Group

This glossary is incomplete and looks unprofessional – suggest you use the glossary at the end of the Aquaculture doc.

All docs should have the same style glossary (and overall style...) and the glossary should be in the same place – the end

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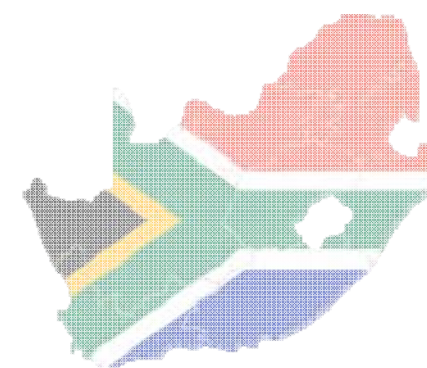
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Ocean governance case for change

Marine environmental governance in South Africa is currently undertaken in a sectorial fashion. The DEA is generally responsible for overarching environmental governance, while sectorial environmental governance responsibility is devolved to economic departments, notably the DMR, DOE, DAFF, and DOT. An integrated approach to ocean governance is possible if a single regulatory agency is tasked with all decision-making over human use activity in South Africa's oceans. Various maritime nations have attempted such an approach, but it has generally proved impossible to implement, largely because it is difficult to persuading state organs to cede their regulatory powers to a new structure. The Ocean Lab proposed the following ocean governance structures and framework:

- The highest component of the structure will be the Ocean Inter-Ministerial Committee (IMC) chaired by the Minister in the Presidency, the Minister of Performance Monitoring and Evaluation, and comprising the Ministers of Environmental Affairs, Agriculture, Forestry and Fisheries, Transport and Mineral Resources, and other Ministers included as required. Matters that cannot be addressed at a lower level will be escalated to the IMC and it will be involved in the process of adopting marine spatial plans.
- The FOSAD Oceans Sub-Committee will be chaired by the DG of DEA and will comprise of the DGs of the DEA, DAFF, DOT, DMR, DED, DPME, the National Planning Commission (NPC) and others as required. The Sub-Committee is the main body addressing interdepartmental ocean governance matters.
- The Ocean Secretariat will comprise a Head, implementation leaders and administrative officers for the three competence areas: research, database management and planning tool development; permitting and authorisation facilitation; compliance, surveillance and legislation. Each area will have its own technical working group that will not be part of the Secretariat's permanent structure. The Secretariat will provide secretariat functions for the IMC.

The proposed ocean structure will ensure sectorial role players retain their regulatory powers but they will be required to exercise these powers in a collegiate manner with other sectors. The implications of the coordinated sectorial approach to ocean governance are that South African sectorial decision makers are required to balance economic, environmental and social factors when exercising their respective mandates. This approach will allow for better environmental decision-making and the unlocking of economic potential. It will further ensure that the accumulation and aggregation of all human use impacts are taken into account when conducting sectorial regulation

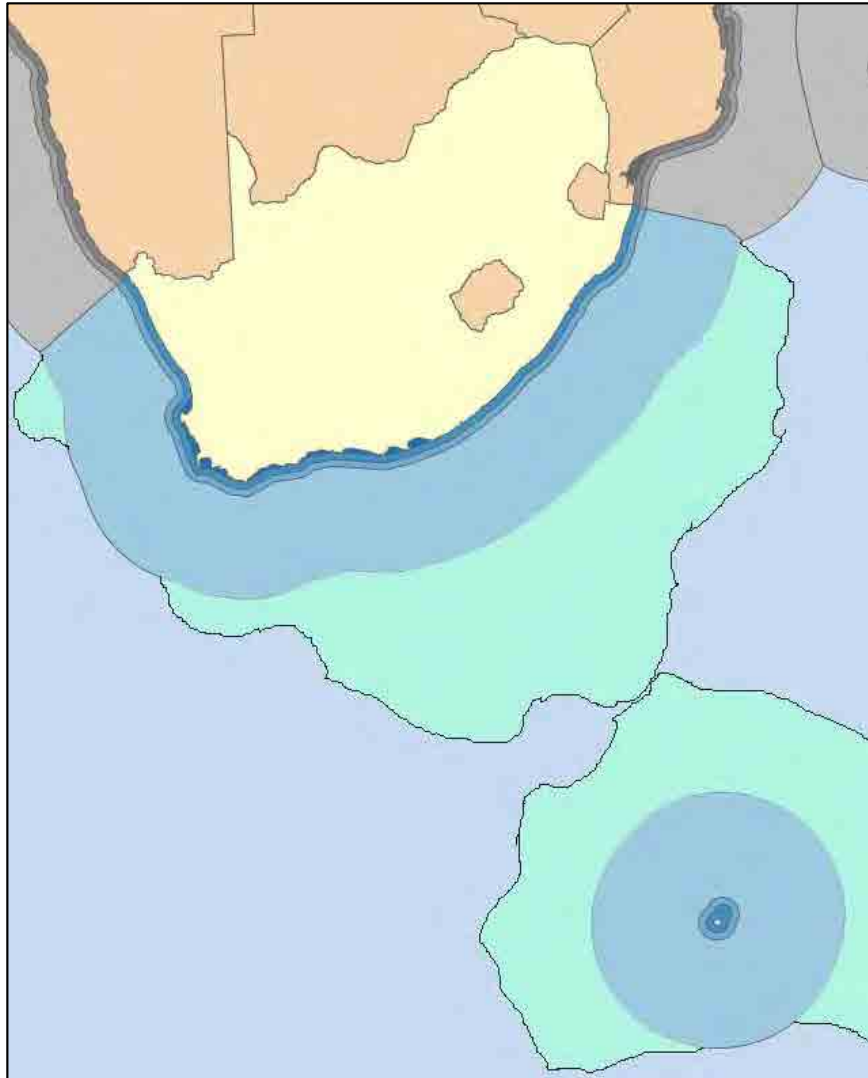
Analysis of other countries, such as Australia, Canada, China, Norway, Japan and the US, reveals the following:

- All countries have established an inter-ministerial board, but its location and lead entity vary. Japan and the US have located the board in the Prime Minister or President's Office. Other countries such as Canada, China and Norway have tasked their DEA equivalent to act as the lead department.
- All countries have created a mechanism by which applied advisory boards are made responsible for providing expert input to guide decision makers. Such expert groups can be economically sectorial in nature or cross-cutting. The advisory groups are established by the inter-ministerial board and tasked with specific mandates
- To support the decision-making activities of the inter-ministerial body and the activities of the expert groups, all countries have established a form of Secretariat to perform the required coordinating functions. Some of these, e.g., in Australia, Canada and Norway, have established technical expert divisions within their structure for specific and ongoing expertise.

CONTEXT

South Africa has more ocean space than land, and our ocean will increase should the extended continental shelf claim be successful

Land mass EEZ Extended continental shelf claim



Land size:

1.2 mn km²

EEZ size:

1.5 mn km²

- South Africa is responsible for managing an **oceans space** that is **greater** than the **land territory**
- The extended continental shelf claim will **double** the size of its **ocean geography**

With such a large ocean jurisdiction, effective governance will be challenging given the size and complexity

kilometres of coastline



national acts regulating marine governance

coastal provinces with their own socio-economic context and development goals



As South Africa acquires more ocean mass than it has land mass, governance and protection of our ocean space is critical

Ocean governance

Governance is defined as the “**involvement of a wide range of institutions and actors in the production of policy outcomes, which involve coordination through networks and partnerships.**”

Marine governance is extremely complex as it involves **state sovereignty, resource development, international commerce, environmental protection** and **military activities**.

As such, issues arise around the management of **conflicting uses and users of ocean space and resources**. Addressing these issues via governance will require both horizontally and vertically integrated institutions.

Ocean protection

We explored two aspects of protection in this Lab: environmental protection and surveillance, and policing of the oceans.

Environmental protection has a very close link to **Marine Protected Areas (MPAs)**. With **low impact** from humans, these clearly defined geographical areas support **healthy ecosystems** where **biodiversity can flourish** and **fish stocks can replenish themselves**.

Surveillance and policing of the oceans is critical given the strategic importance of commercial ports and the oceans bordering South Africa; ports, as vulnerable economic choke points, must be protected at all costs. Similarly, the fishing industry must be protected not only for the number of jobs it provides, but also for its current and potential contribution to the GDP.

Strengthening ocean governance is aligned to our broader national socio-economic aspirations

South Africa's constitution

- South Africa's Constitution requires the protection, conservation and sustainable use of the marine environment.
- Section 24 of the Constitution provides everyone with a right to an environment that is not harmful to their health or well-being and to have that right protected through reasonable legislation and other measures that: (i) prevent pollution (ii) promote conservation (iii) secure ecologically sustainable development and use of natural resources.

National Strategy for Sustainable Development (NSSD 1)

Two strategic priorities advocate implementation of programmes for sustainable marine management:

- Priority 2: Sustaining our ecosystems
- Priority 3: Towards a Green Economy

National Spatial Development Perspective (NSDP)

- Principles of the NSDP are consistent with biodiversity conservation and marine protection objectives, especially to the extent that they encourage compact, nodal urban development and discourage investment in fixed infrastructure in marginal areas of limited economic potential.

National Development Plan (NDP)

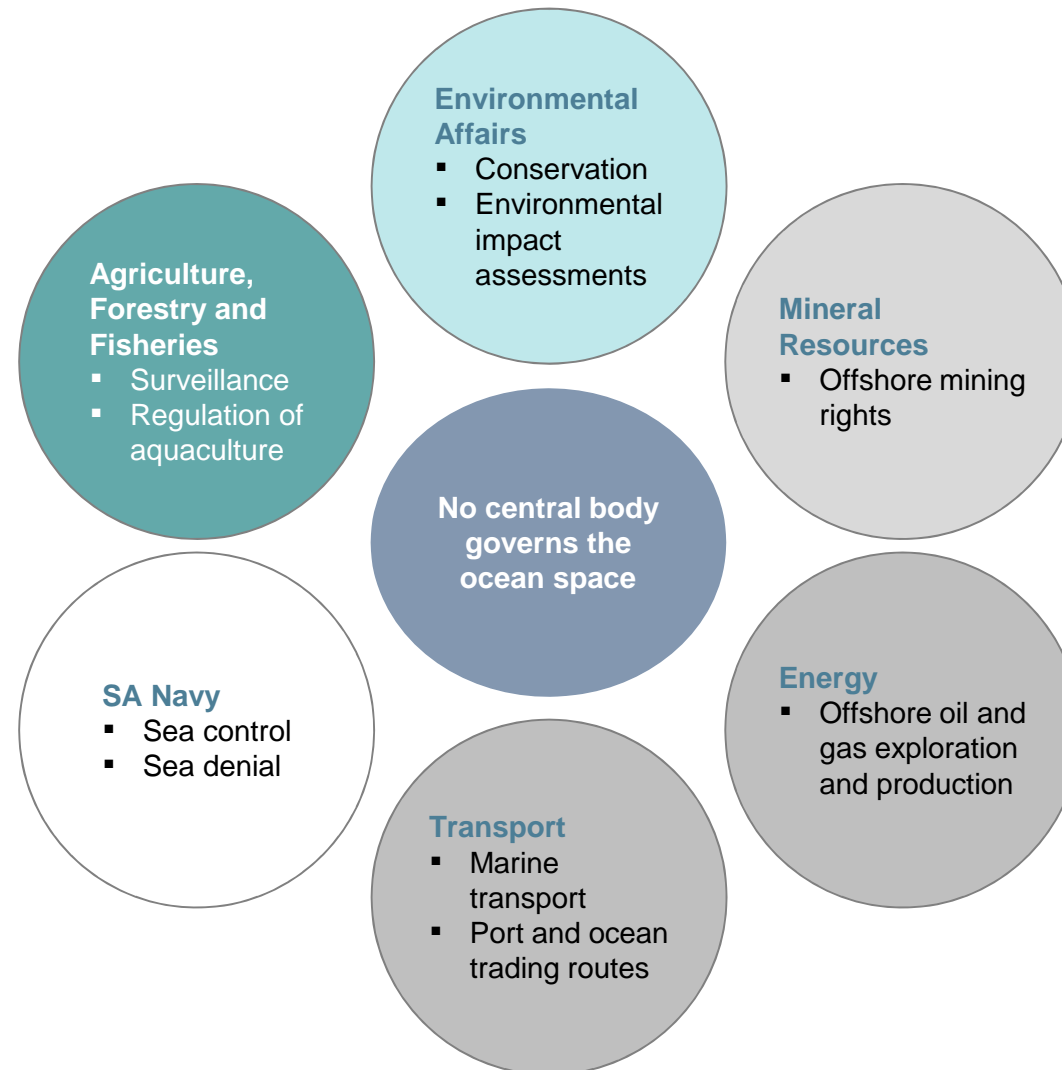
Developing non-agricultural activities

- The NDP advises on the allocation of economically viable fishing rights and reviews fishery policies to determine the best way to allocate rights to maximise employment.
- An enabler of the rights allocation approach must be effective and coordinated national marine governance regulation and implementation.

CONTEXT

The existing sectoral approach only gives a partial picture of the sector, which makes it difficult to achieve balance and manage interdependencies

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Our existing environmental regulatory framework has identified the need for a new coordinated sectoral management system

“ Develop an integrated approach to ocean governance including management plans for ocean areas, environmental variables, conflict scenarios and trade-offs as recommended in the White Paper on the National Environmental Management of the Ocean.

*Cabinet decision on Ocean
Economic Perspective Study*
– Dec 2013

Over the next five years, South Africa will transition from the current sector-based ocean management approach to a coordinated cross-sectoral planning scheme. The movement towards a coordinated cross-sectoral planning approach is required by the existing statutory framework.”

*White Paper on the National
Environmental Management of the
Ocean*
– May 2014

Coordinated ocean governance will identify and manage interdependencies between socio-economic aspirations and environmental integrity

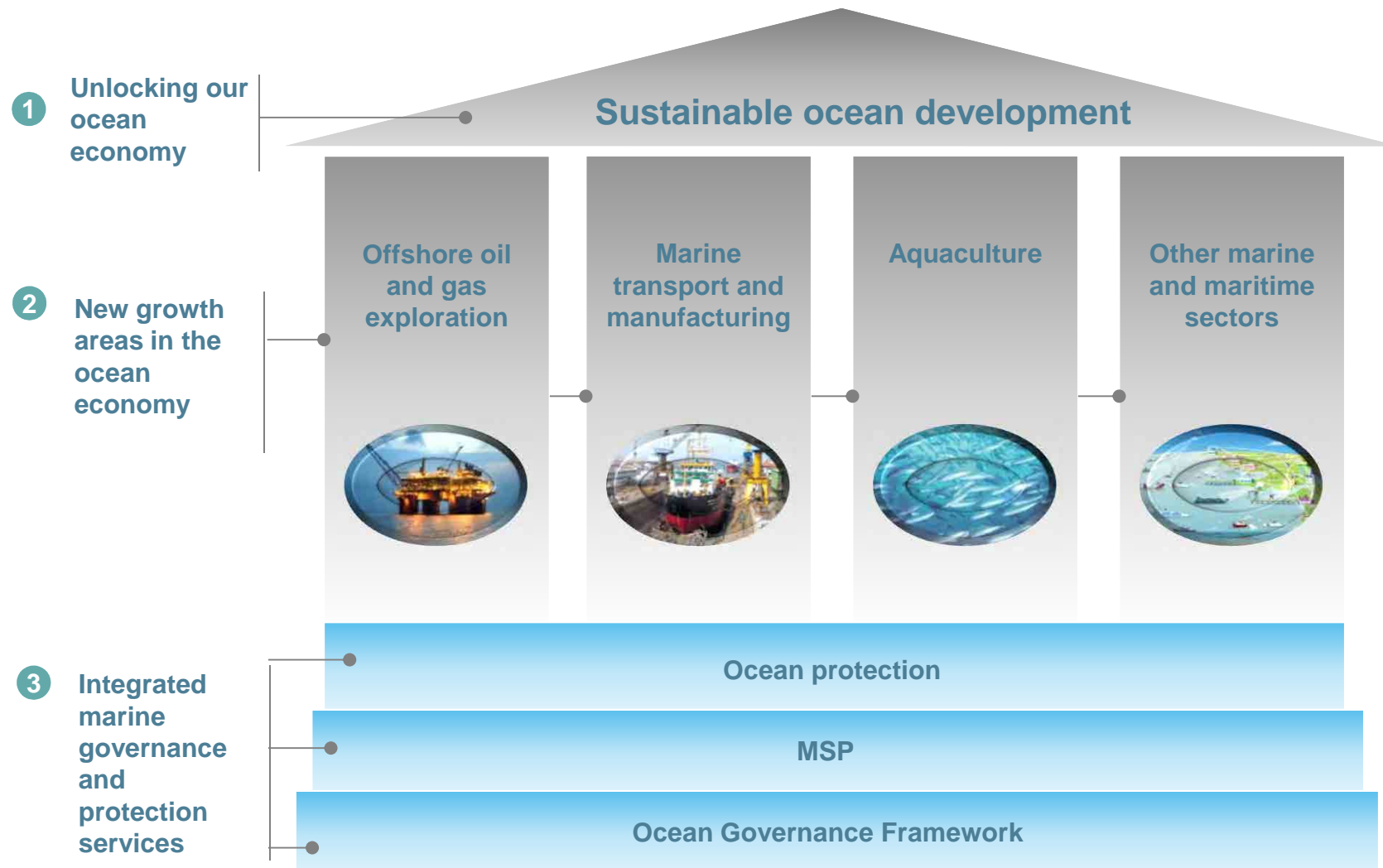


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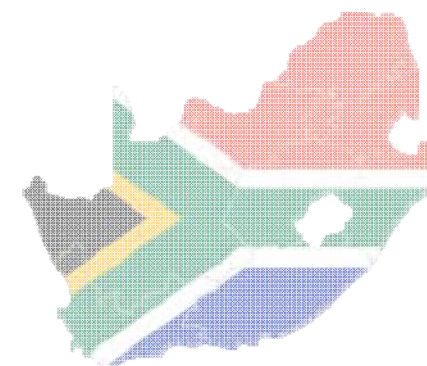
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Operation Phakisa aspires to implement this new coordinated ocean governance approach over the next five years

Implement an **overarching, integrated ocean governance framework** for **sustainable growth** of the ocean economy that will maximise socio-economic benefits while ensuring **adequate ocean environmental protection** within the next five years

The Lab developed an ocean charter

Lab scope definition

To implement an overarching, integrated ocean governance for sustainable growth of the ocean economy that will maximise socio-economic benefits while ensuring adequate protection within the next five years

Criteria and measures for success

- Draw up a governance framework that harmonises all present policies and has tools to facilitate the resolution of conflict, agreed by all key stakeholders (including relevant industries) and approved by Cabinet.
- Establish a marine spatial plan framework by 2015, and completely approved MSPs for the rest of the EEZ by 2025.
- Define norms and standards and monitoring requirements for ocean Industries.
- Develop a capacity-building plan for ocean governance.
- Create an MPA representative network, reduce illegal exploitation and lower levels of pollution while ensuring compliance with best practices

Boundaries and limits

- Exclude areas of marine defence and security issues

Stakeholders for syndication

- Department of Environmental Affairs
- Department of Agriculture, Forestry and Fisheries
- Department of Science and Technology
- Department of Planning, Monitoring and Evaluation
- Department of Mineral Resources
- Department of Transport
- Department of Justice
- Department of Trade and Industry
- Department of Energy
- Department of Public Enterprise
- Department of Communication
- Department of Defence
- SA Police Service (Marine Police)
- Provincial Governments

Timeframe for resolution

- Quick wins – First results by March 2016
- Medium term – First results in Apr 2016-Mar 2019

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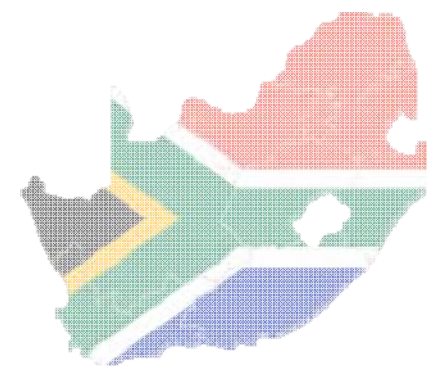
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We identified three focus areas, each with their own unique challenges

Integrated ocean governance and protection

Integrated framework and governance



- **Uncertainty** around roles and responsibilities
- **No institutional framework** to manage multiple users of the same ocean space
- **How to coordinate** departments that are active in the ocean
- Lack of **adequate skills** for ocean governance

Ocean protection



- **Coordination** required to **enforce and police** coasts and oceans
- Need to **improve compliance** monitoring
- Need to identify and protect **sensitive and unique marine habitats and species**
- Limited **human and financial resources** to manage ocean resources and environment

Marine spatial planning (MSP)



- **No system** to manage multiple users in the same ocean space
- Many departments and **multiple information sources**
- Much of the ocean space has **not been studied or surveyed**
- Need to **consolidate** survey, research and monitoring programmes

A closer look at some of the key issues reveals opportunities in governance and protection

Institutional framework and governance

 A1 Uncertainty around roles and responsibilities




 A2 Inability to effectively and consistently manage trade-offs and resolve conflicts


 A3 Limited human and infrastructure capacity

Ocean protection

 B1 Need to improve and expand the existing MPA network



 B2 High levels of illegal, unreported, and unregulated (IUU) fishing. Illegal harvesting of living marine resources is having a negative impact on sustainability and economic benefits.

 B3 Exploitation of non-living resources can negatively impact the environment and other sectors, especially through pollution

Challenges need to be overcome to ensure long-term MSP

MSP



- C1** MSP requires a legislative home so that sector departments' work can be coordinated or integrated.
- C2** Lack of an investment framework to support the significant needs of MSP
 - Lack of a technical committee/expert panel to provide input into decisions and
- C3** future scenario projections
 - Lack of capacity, skills and knowledge to enable good decision-making
- C4**
 - Lack of a consolidated data acquisition mechanism and supporting infrastructure
- C5** to create a proper repository
 - Lack of common operating norms, standards and monitoring requirements for
- C6** ocean industries

A1: Uncertainty around roles and responsibilities and the interfaces between them

Case for change

- We need certainty on who does what to break down the sectoral management barriers
- Breaking these barriers – which also drive a silo approach – will allow government, industry and other institutions to work effectively to unlock the potential economic benefits of the ocean



Root causes

There is no ocean governance institutional framework to explain who does what and how different stakeholders can work together effectively

A2: Inability to effectively and consistently manage trade-offs and resolve conflict

Case for change

- We need to resolve issues (conflict over use and trade-offs that need to be made between objectives and sectors)
- If unresolved, these issues lead to a stalemate and/or delays that block competing sectors and limit our ability to achieve sustainable ocean economic development



Root causes

- Historically, we have used a sectorial approach to governance and management, acting within individual mandates
- This is particularly problematic when individual stakeholders' mandates diverge

A3: Limited human and infrastructure capacity

Case for change

- Ocean governance and policies have come onto the national agenda only recently
- We have never had to look for alternatives before
- Terrestrial challenges and opportunities took preference, especially with our overabundance of resources. However, our prospects of terrestrial economic growth are poor and this has a big impact on job creation
- It has become increasingly difficult to find and create land-based jobs, so we are now looking to the ocean to create jobs that over time will reduce poverty and stimulate growth
- We need to
 - Remove obstacles and build an ocean economy
 - Comply with our domestic, regional, continental and international obligations
 - Provide effective, efficient and economic coordinated management of the ocean to support sustainable economic development



Root causes

- Skill development in the ocean space and for ocean governance were not previously a government priority
- Our education system does not focus on ocean and maritime education

B1: Need to improve and expand the existing MPA network

Case for change

- Insufficient area under protection and not all habitat types are protected; identifying and establishing MPAs will reduce the uncertainty around ocean development.
- Existing MPAs do not have enough buy-in from local communities.
- Existing MPAs are not all properly managed. Those that are effectively managed show major advantages over unprotected areas and can provide benefits beyond MPAs.
- Coverage of MPAs to ensure protection of marine biodiversity and sustainable marine resource utilisation is inadequate, particularly along the west coast and the mainland off-shore region.



Root causes

- Lack of consultation and empowerment of local communities.
- Lack of human and financial resources to manage MPAs.
- Exploitation of resources outside and poaching inside MPAs put great pressure on most resources.
- Insufficient knowledge of biodiversity and ecosystems when an MPA is declared means few MPAs have clear objectives. We can address this in the review process.
- No proper governance and institutional frameworks to balance decision-making and make enforcement effective.

Ocean protection has a very broad base; prioritisation helps to build a targeted approach

1 → 3
Unimportant → Very important

Ocean protection prioritisation exercise

Protection against what?	Economic	Sustainability	Time frame	Social	Total
1. Illegal [commercial] fishing/poaching	2	3	1-3 yrs	3	8
2. Pollution from land and sea activities (oil spills) and disasters	1½	3	1 yr	1	5½
3. Over-exploitation of living and non-living resources [biodiversity loss]	3	3	1 yr	3	9
4. Ensure safety of trade supply chain - loss of IRIT systems	3	1	3-5 yrs	3	7
5. Biological invasion	1	2	1-2 yrs	1	4
6. Cultural heritage	1	1	-	2	4



B2: High levels of IUU fishing are having a negative impact on sustainability and economic benefits

Case for change

- Illegal harvesting of living marine resources is estimated to cost South Africa at least ZAR 2 billion per year
- Poaching continues to threaten biodiversity, resource sustainability and the livelihood of legitimate fishers
- Integrating or co-ordinating monitoring and enforcement activities between departments could help to address illegal exploitation



Root causes

- Lack of adequate and coordinated enforcement (capacity, resources)
- Unlicensed fishers and non-permit-holders are harvesting illegally
- Non-compliance with permit conditions by legal permit holders
- Poaching (by local and international syndicates, with links to organised crime)
- Dissatisfied/unsuccessful applicants for long-term rights
- Small-scale operators are unable to participate in harvesting due to lack of resources

B3: Exploitation of non-living resources can negatively impact the environment and other sectors, especially through pollution

Case for change

- Unsafe exploitation of non-living marine resources will have a negative impact on marine resources, environmental integrity, ecosystem services, and the maritime economy
- Need to ensure environmental best practices and minimise risk of disaster, and have comprehensive response plans in place for all activities from the shoreline to the deep sea
- Need to protect key areas from exploitation of non-living resources
- Need proper coordination and spatial planning between non-living resource exploitation and other sectors
- Improved inter-departmental arrangements need to be finalised (DMR, DEA)



Root causes

- Rapid increase in exploration and exploitation of non-living resources, minerals, oil and gas
- Emerging techniques (e.g., very deep water exploitation) may not all prove to be safe
- Rights are allocated without adequate provision for conservation areas or other existing uses, e.g., fishing
- Worldwide, several massive disasters have been caused by human error or equipment failure, not weather
- The current overall MPA coverage is not sufficient to protect marine biodiversity and sustainable fisheries from non-living resource exploitation, particularly along the west coast and mainland off-shore region
- There are no proper norms and standards for emerging technologies

C1: MSP requires a legislative home so that sector departments' work can be coordinated or integrated

Case for change

- It is unclear if the framework provided by the NEMA, ICM Act and NEMO White Paper provide the required legislative triggers.



Root causes

- The NEMA, ICM Act and NEMO White Paper may be viewed as driven by an environmental conservation agenda and as such they have not sufficiently enabled the ocean economy.

C2: Lack of an investment framework to support the significant needs of MSP

Case for change

- Costing will allow for MSP and its enablers to be fully planned. This will also clarify roles and responsibilities. This process must seek to leverage government and industry, and optimise investment in ocean and coast surveying and governance.



Root causes

- There is no coordinated or integrated approach to coast and ocean management
- Government investment in ocean and coast research, surveying, monitoring and management is fragmented and may be competing in similar areas

C3: Lack of a technical committee/expert panel to provide input into decisions and future scenario projections

Case for change

- Assuming that all the best information is collated, future scenarios will need to be made and trade-off discussions held, but it is not clear where the expertise lies.
- The value of MSP will be in generating future use scenarios, accumulated and aggregated pollution impact, and existing and emerging areas of conflict in the ocean. In addition, we need to understand how marine goods and services can be eroded, damaged or altered, which will have an impact on opportunities and threats for South African citizens.



Root causes

- Scenario planning for marine industries, MSP and variability and change in marine ecosystem services is a new area of expertise and its status is not yet determined in South Africa

C4: Lack of capacity, skills and knowledge for good decision-making

Case for change

- This may be due to insufficient data, MSP tools and human expertise in future scenarios, and option and trade-off definitions, as described in previous issues
- Lack of agreed objectives and principles is the main issue. If we define these for MSP decision makers, we can prioritise activities in conflict areas



Root causes

- MSP and integrated marine planning is an emerging area

C5: Lack of a consolidated data acquisition mechanism and supporting infrastructure to create a proper repository (1/2)

Case for change

- Spatial planning for the ocean (and in some cases coasts) is hindered because the Government lacks a full or majority picture of the extent to which marine living and non-living resources occur in the EEZ and continental shelf extension.
- A full description of these resources will allow for spatial planning. Compiling this data will define conflict areas in the ocean with biodiversity distribution and pollution levels, and a description of environment functions that will allow future trends in changing ecosystem to be investigated for their impact on industry and people (flooding, storm surge, soil erosion, waves, sea level rise, sea temperature rise, etc.).
- Sector departments and agencies collect various environmental, sector and compliance data but do not share them. As a result, duplication exists or may occur. Government and industry investment in data collection can be optimised through a data-sharing platform or information system.
- Defining common data collection specifications and standards will make data sharing easier, even standardised systems for displays that include data layering across space and time. Such a systems will enable us to identify conflict areas and create solutions.
- Establishing an information repository for will enable us to identify infrastructure gaps. Observation technologies for environmental observation (or research), marine surveys of living and non-living resources and maritime compliance are expensive. They may include ships, moorings, satellites and related infrastructure such as communications systems and laboratories (and human technical expertise). Government and industry investment must be optimised, especially if the SA EEZ and extended continental shelf claim succeeds, as it represent a very large and relatively undocumented geographic space.



C5: Lack of a consolidated data acquisition mechanism and supporting infrastructure to create a proper repository (2/2)

Root causes

- Existing data from sector departments have not been collated within one system, so a full description of what exists/does not exist is unavailable.
- Much of the EEZ and the extended continental shelf has not been surveyed or researched.
- Marine research and monitoring is fragmented.
- Lack of common data collection specifications and standards restrict data-sharing .
- Ocean and coast sector departments have different evolution histories. They respond to different sector development and management needs and have developed different solutions.
- Sector departments and agencies have evolved in silos with no common shared vision for describing and monitoring the SA marine and maritime geographic space.

C6: Lack of common operating norms, standards and monitoring requirements for ocean industries

Case for change

- Establishing these will enable industries and governance and operations expectations to be defined up front. Monitoring and reporting requirements must also be defined so that industry can calculate the costs for their operations. They should also include threshold considerations; norms and standards can be industry-specific but there may be a need to define thresholds for ocean or coast areas in terms of accumulated and aggregated impact. We should seek to streamline/align across sectors (generic plans).



Root causes

- Ocean industries are emerging and norms and standards and reporting requirements have yet to be established. Transport (shipping) and ports are an exception, but standardised operations and reporting can enhance environmental management and spatial planning.

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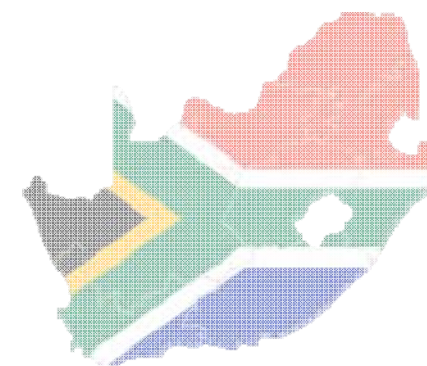
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To achieve the Lab's overall objective, specific targets were identified for each focus area

Integrated ocean governance and protection

Implement an overarching, integrated ocean governance framework for sustainable growth of the ocean economy to maximise socio-economic benefits while ensuring adequate ocean environmental protection within the next five years

Integrated framework and governance



Develop an **overarching governance plan** by **March 2016**

- Single overarching **policy framework**
- **Institutional framework** for ocean governance
- **Tools** to decide on **trade-offs**
- Ocean governance **capacity building**

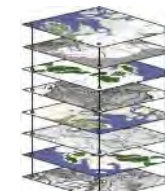
Ocean protection



Protect the ocean environment from **all illegal activities** and promote its multiple **socio-economic benefits** by:

- Improving the **MPA network** and expanding it from **0.42%** to a representative network
 - **Reducing** illegal and unregulated activities in the ocean space
 - **Reducing human health and environmental risks** to pollution
- with results by **2017**

Marine spatial planning (MSP)



Deliver a **National MSP framework** by **Dec 2015**, a Regional (Sub-national) MSP Framework and a more detailed **small-scale MS plan** to enable a sustainable ocean economy

The Lab proposes 10 key initiatives 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 ICOM 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 an MPA representative network
- 9 MPA/MSP discovery, research and monitoring programme

Marine spatial planning (MSP)



- 10 MSP process

Eight of these initiatives constitute quick wins

Phase I: Quick wins

First results by March 2016

- 1 Ministerial Committee and Secretariat to govern activities
- 4 Accelerated capacity-building intervention in ocean governance
- 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 an MPA representative network
- 9 MPA/MSP Discovery, Research and Monitoring Programme
- 10 MSP process

Phase II: Medium term

First results by March 2019

- 2 Enhancement of legislation for the ICOM Act or Oceans Act
- 3 Review of ocean-related legislation

We categorised the initiatives into two priority categories and specified budget requirements over the next five years

		<u>Budget required (R mn)</u>
Critical	1 Ministerial Committee and Secretariat to govern activities	16.76
	4 Accelerated capacity-building intervention in ocean governance	4.41
	5 Enhanced and coordinated enforcement programme	12.66
	6 National ocean and coastal information system and extending earth observation capacity	462.71
	8 Creation of an MPA representative network	6.43
	10 MSP process	88.43
High priority	2 Enhancement of legislation into the ICOM Act or Oceans Act	Nil
	3 Review of ocean-related legislation	Nil
	7 National ocean and coastal water quality monitoring programme	992.33* > 900 existing
	9 MPA/MSP Discovery, Research and Monitoring Programme	133.25

*Includes Working for Coasts Programme Costs

The first focus area covers four initiatives

Integrated ocean governance and protection

Integrated framework and governance



1

Ministerial Committee and Secretariat to govern activities

2

Enhancement of legislation into the ICOM 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 MPA representative Network

9

MPA/ MSP Discovery, Research and Monitoring Programme

Marine Spatial Planning



10

MSP Process

These are critical to managing multiple uses and resources

Integrated framework and governance



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

Why are these initiatives important?

- 1 There is no integrated ocean governance institutional framework to explain who does what and how stakeholders should work together effectively. There is no conflict resolution mechanism, although the Oceans Secretariat provides a means of resolving conflicts and finding trade-offs that will unlock the SA ocean economy.
- 2 There is a legislative gap in ocean governance. Various user groups that did not previously infringe on one another now find themselves using similar areas of the marine environment. Sectorial management of marine resource use creates pressures and opportunities for human usage when addressed in a silos or separately and can have unintended consequences with respect to other sectorial uses and the marine environment itself.
- 3 The lack of comprehensive surveys of existing international and domestic legal instruments have an impact on ocean-related activities. Fragmentation, overlaps, conflicts and gaps exists between these instruments and have a negative impact on ocean governance and management and the blue economy.
- 4 Ending the fragmentation of current programmes that seek to grow capacity for ocean and coastal governance and improve stewardship will require a new, broadly adopted framework for capacity-building programmes that emphasises cooperation, sustainability, and knowledge transfer within and among role players in the ocean environment

To achieve our aspirations, South Africa needs a cross-sectorial implementation body, human and technical resources and a single legislative framework

Institutional framework and governance



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

1: Ministerial Committee and Secretariat to govern ocean activities

Case for change: There is no integrated ocean governance institutional framework to explain who does what and how stakeholders should work together effectively. There is no conflict resolution mechanism, although the Oceans Secretariat provides a means of resolving conflicts and finding trade-offs that will unlock the SA ocean economy.

Details:

- This institutional framework will govern the development, protection and monitoring of SA's oceans
- We propose raising the profile of maritime and marine agenda by **establishing a committee chaired by a Minister in the Office of the Presidency**
- This unit will **bring all relevant role-players** and data together in meetings of the **Oceans Inter-Ministerial Committee (OIMC)**
- Each meeting will be **chaired by the Minister within the Presidency**
- **Standing meetings** will occur directly before or after cluster meetings
- A **DG Oceans Forum (FOSAD)** will use reports and data including marine spatial management plans to make decisions on trade-offs and facilitate joint-planning
- This data will be prepared by various **Technology Working Groups** which will convene on an ad hoc basis to provide expert input and research
- Areas already identified as initial priorities include: permitting, compliance, information systems, surveillance and MSP
- An **Oceans Secretariat, consisting of a few core staff members supported by expert groups and housed within the DEA**, will support the work of the technical committees and provide oversight and monitoring of ocean activities
- Relevant **departments will retain their mandates** and project management responsibilities
- Legislation will need to be amended to legislate this proposed ocean governance institutional framework as a permanent structure

Permanent Secretariat to provide technical and support by the end of FY 2014/2015 to be supported by an Oceans IMC and FOSAD Oceans Sub-Committee

Implementing agency: DEA

Key stakeholders identified

- | | |
|--------|--------------------|
| ▪ DST | ▪ DOE |
| ▪ DEA | ▪ DOT |
| ▪ DHET | ▪ DPME |
| ▪ DAFF | ▪ Local government |
| ▪ DMR | ▪ Provinces |

Required resources

Investment (ZAR mn): ZAR 45mn over 5 years (ZAR 9mn every year)

Implementation timeframe

- Start date: October 2014
- End date: A continuous structure with no definite end date

Key milestones

- October 2014 – Interim Secretariat formed and operational
- February 2015 – FOSAD Oceans Sub-committee appointed
- October 2015 – Permanent Secretariat operational

A cross-sectorial Secretariat will establish processes and structures to clarify ocean resources to multiple users

Before

Confusion about different processes, agencies and legislations approving permits for various ocean economic sectors



After

The **Secretariat** will coordinate applications to improve timeliness and provide cross-functional oversight

The **Secretariat** will also facilitate any trade-off discussions between competing industries to provide clarity to applicants



An effective ocean governance structure balances national socio-economic aspirations with protection of the ocean's environmental integrity

The launch of Operation Phakisa by the Presidency has established unlocking the economic potential of the oceans sustainably as a key area of focus

a. Mandate

- Strength coordination across sectorial ocean policy issues

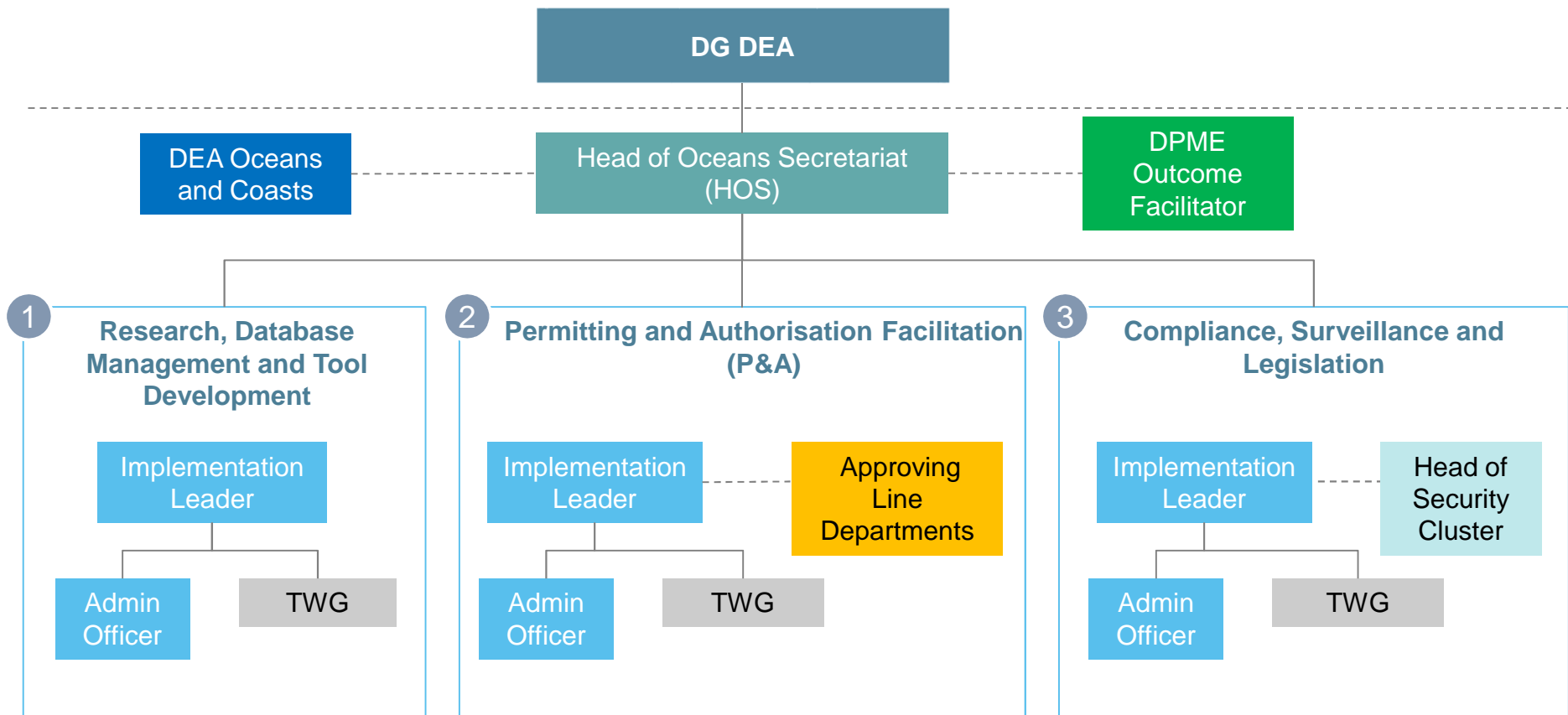
b. TOR

- Oversee the implementation and further develop SA's ocean policy
- Consider marine research and technological priorities related to the development of SA policy implementation
- Provide strategic coordination across departments responsible for developing and representing SA's position in international marine issues/negotiations
- Consider and recommend implementation of the MSP

c. Composition

- Chaired by the Minister in the Presidency
- DEA, DOT, DPE, DST, DAFF, DMR, DPME
- Co-opt other departments as needed, e.g., DIRCO, DOD

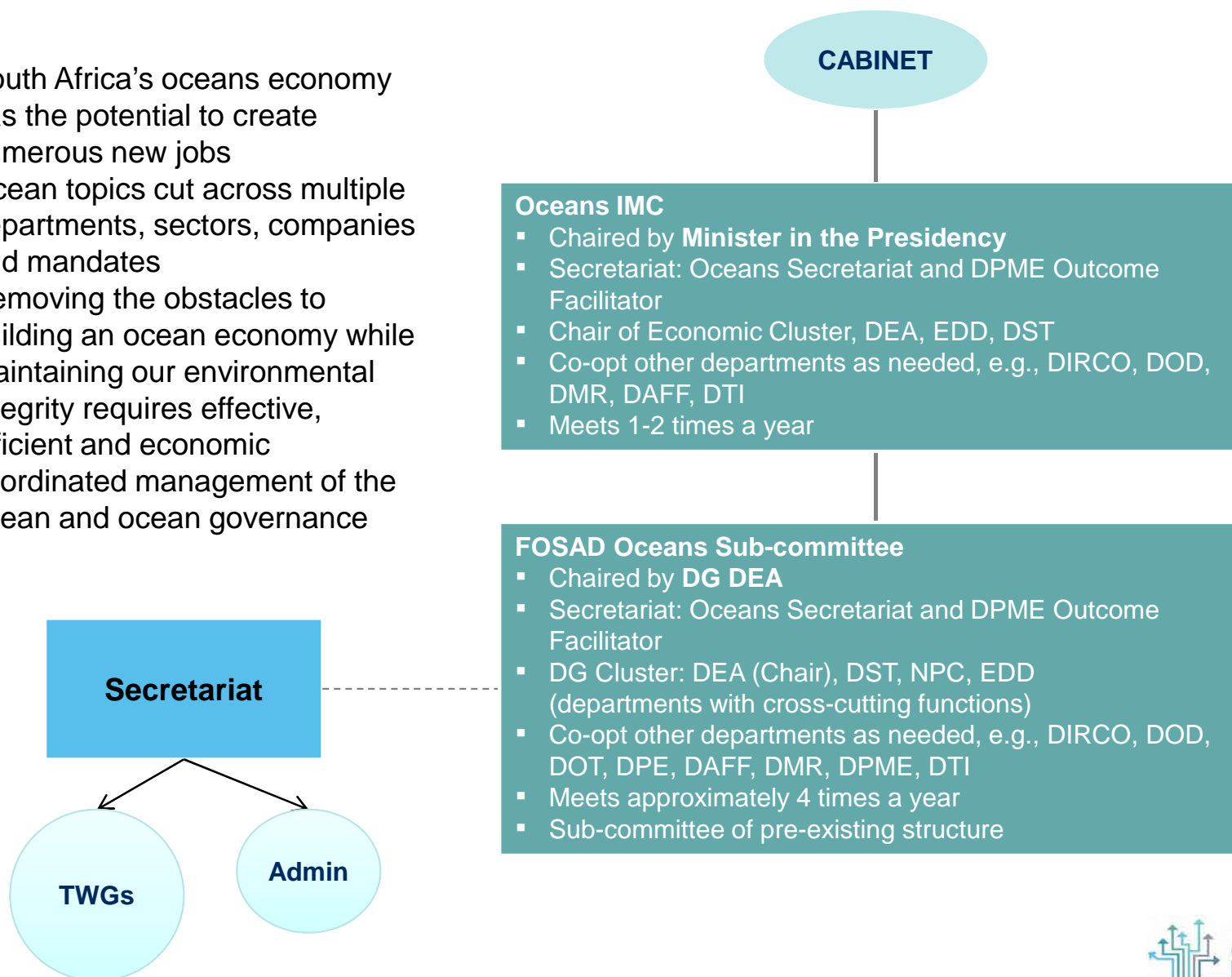
The proposed Secretariat will oversee all ocean governance programmes

**TWG**

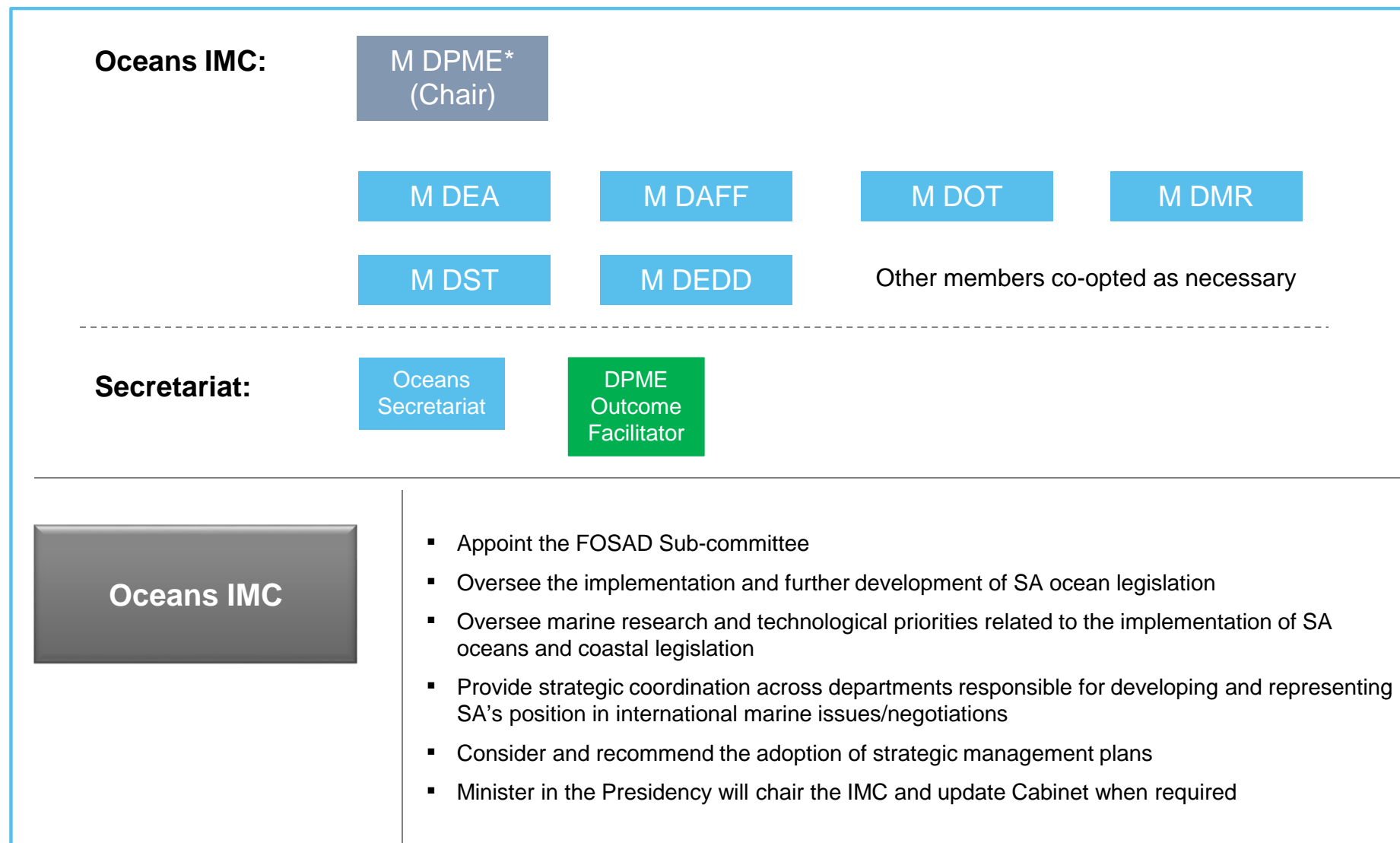
Technical experts from various line function departments who are brought in to work on specific projects or programmes via TWG meetings

To fulfill this role, the Secretariat will work alongside the FOSAD Sub-committee and Oceans Inter-ministerial Committee (IMC)

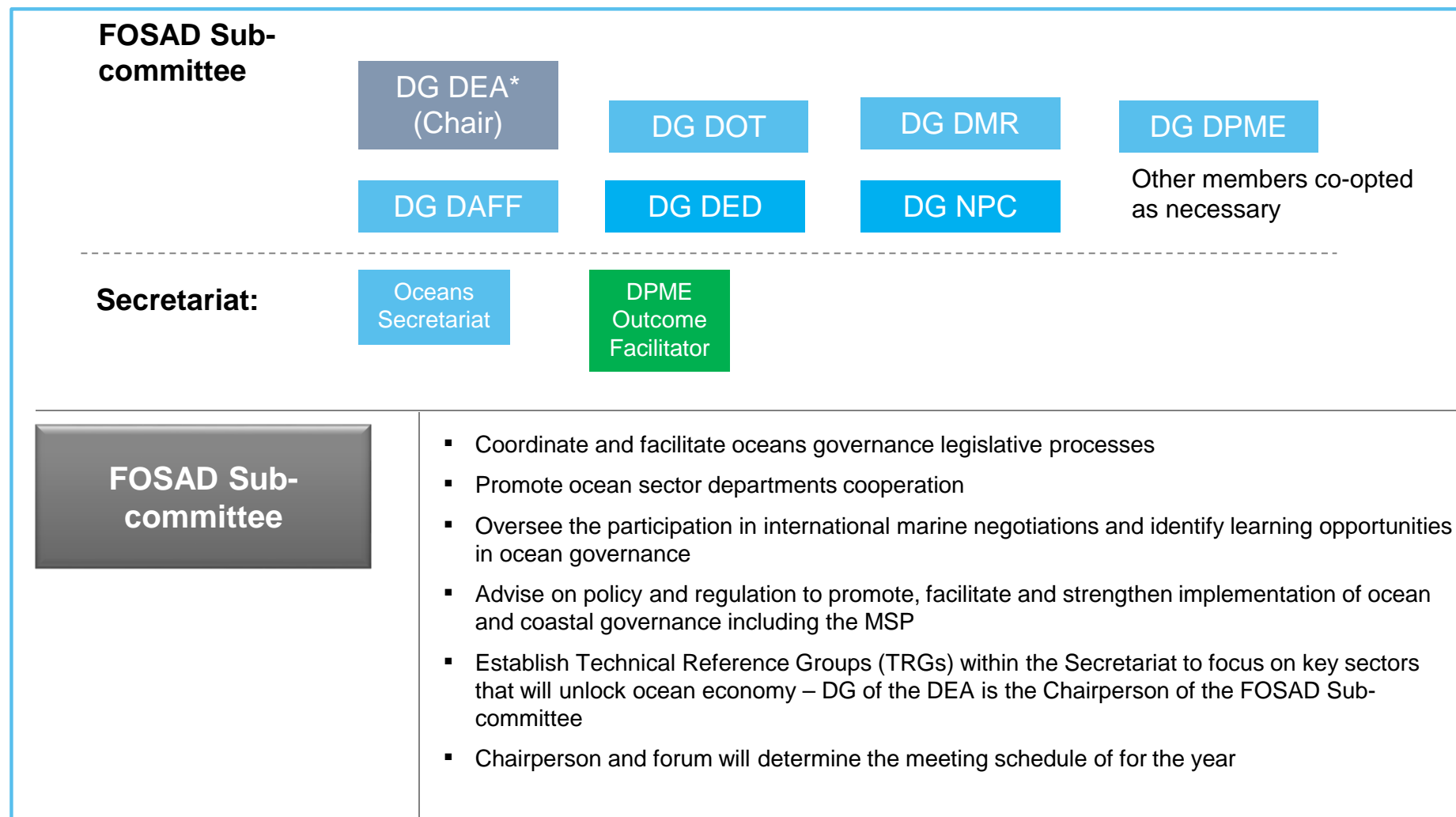
- South Africa's oceans economy has the potential to create numerous new jobs
- Ocean topics cut across multiple departments, sectors, companies and mandates
- Removing the obstacles to building an ocean economy while maintaining our environmental integrity requires effective, efficient and economic coordinated management of the ocean and ocean governance



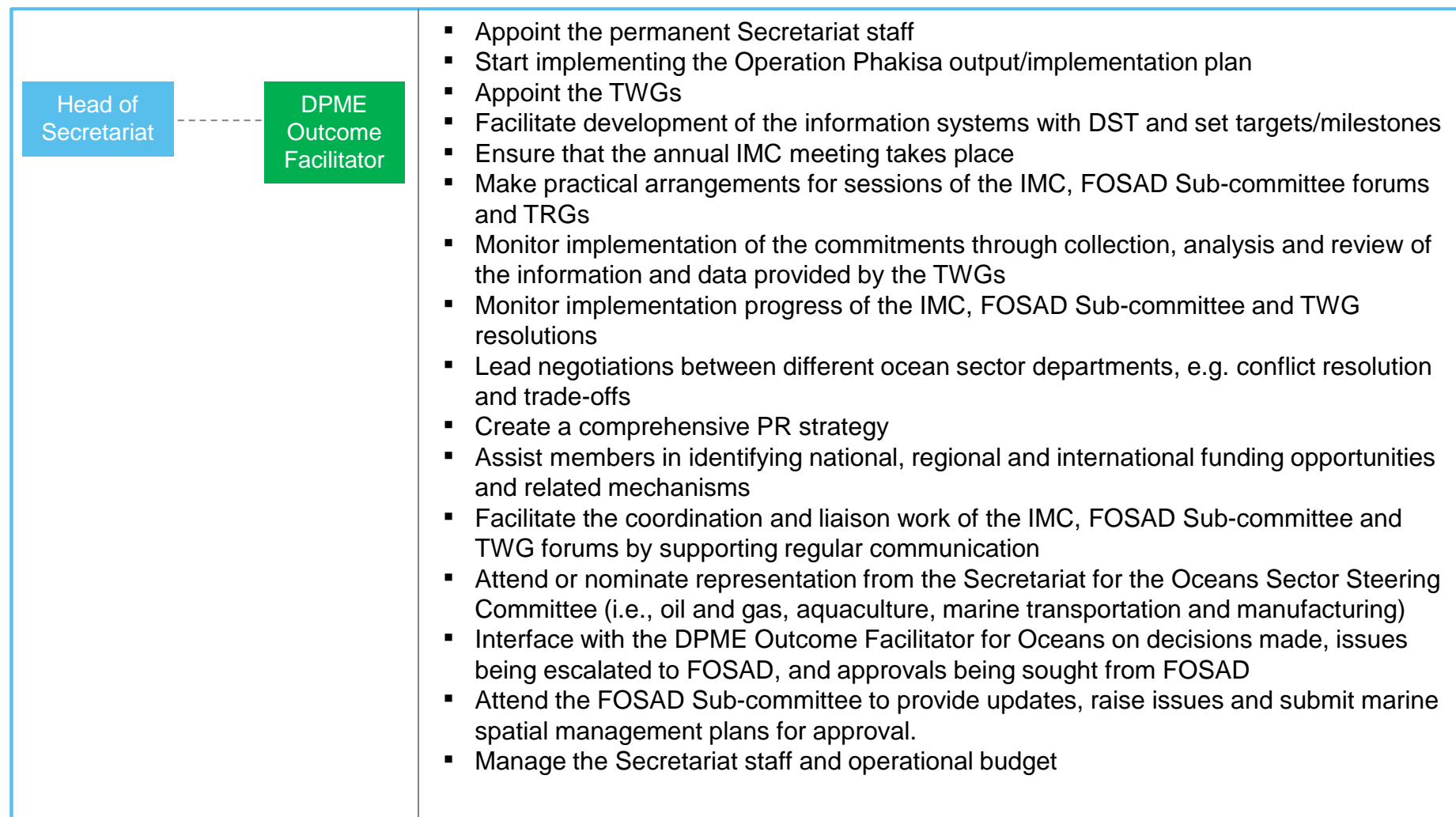
The Oceans IMC will be chaired by the Minister in the Presidency and provide strategic coordination across ocean-related departments



The FOSAD Sub-committee will decide on policy and regulation to promote, facilitate and strengthen ocean and coastal governance implementation



The Head of the Oceans Secretariat (HOS) will report to the chair of the FOSAD Sub-committee, the DG of the DEA



The Secretariat's functions are split across three units

Research, Database Management and Tool Development

1



- Identify and guide cross-cutting research ensuring no duplication
- Identify all relevant information for inclusion in a consolidated ocean database
- Coordinate departments and other stakeholders to produce MSPs for the identified regions

Permitting and Authorisation Facilitation (P&A)

2



- Coordinate the line function departments to ensure permits/authorisations are dealt with within pre-determined timelines
- Facilitate discussions between departments when conflict arises within permitting bodies
- Provide a platform for streamlining processes

Compliance, Enforcement, Surveillance and Legislation

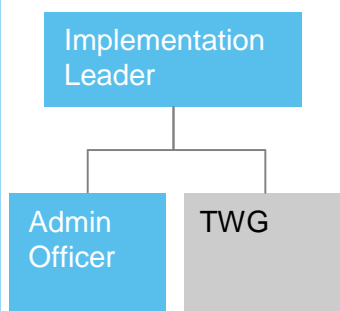
3



- Identify and guide cross-cutting compliance monitoring, reducing duplication
- Coordinate inter-departmental surveillance to minimise costs and reduce overlaps
- Align legislation to resolve conflict and fill gaps
- Interface with the Head of the Security Cluster

1 Research, Database Management and Tool Development

Research, Database Management and Tool Development (MSP)



Research

- Identify and guide the strategic cross-cutting research required in SA to avoid overlaps
- Coordinate inter-departmental research and facilitate discussions between departments when conflict arises within research streams
- Bring international research best practices to SA
- Coordinate ocean-based research with neighbouring countries when required
- Ensure SA is performing research as required by international treaties
- Ensure research objectives are achieved in a timely manner
- Seek international /alternative sources of funding to supplement research funding

Database management

- Identify and consolidate all relevant information for inclusion in a consolidated ocean and coast database
- Identify infrastructure requirements for the proposed consolidated database
- Align data to conform to prescribed criteria (policies) to allow for easy access
- Create a template for data acquisition from sector departments
- House the database once created
- Facilitate a portal to easily access and disseminate ocean and coastal information
- Respond to the needs for decision support tools

Tool development (MSP)

- Oversee the development of a national framework for the MSP (goals, priorities and objectives)
- Coordinate between the departments and other stakeholders to produce MSPs for the identified regions
- Develop sub-regional plans if required
- Facilitate discussions between departments when conflict arises within MSP development.; ensure international and national best practices for MSP development (international expertise if required)
- Once MSP is developed, it will be implemented by the Permitting and Authorisation and Compliance body of the Secretariat

Proposed Working Group members

DEA

DAFF

Sports and Recreation

NGOs

DST

State security

Para-statals

DOD

Telecommunications

DOI

DED

DOT

DOE

Tourism

DMR

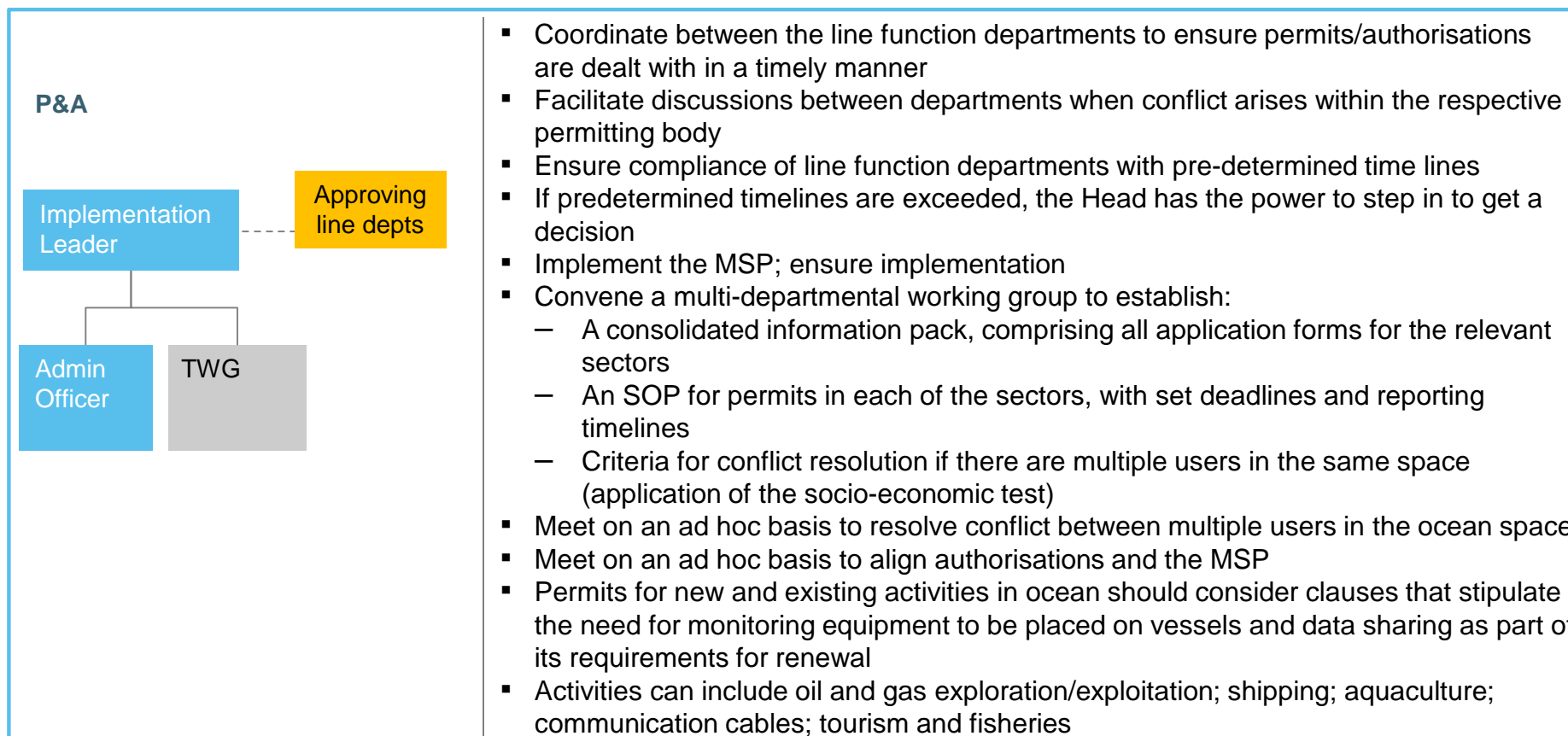
DWS

DPW

Provincial departments

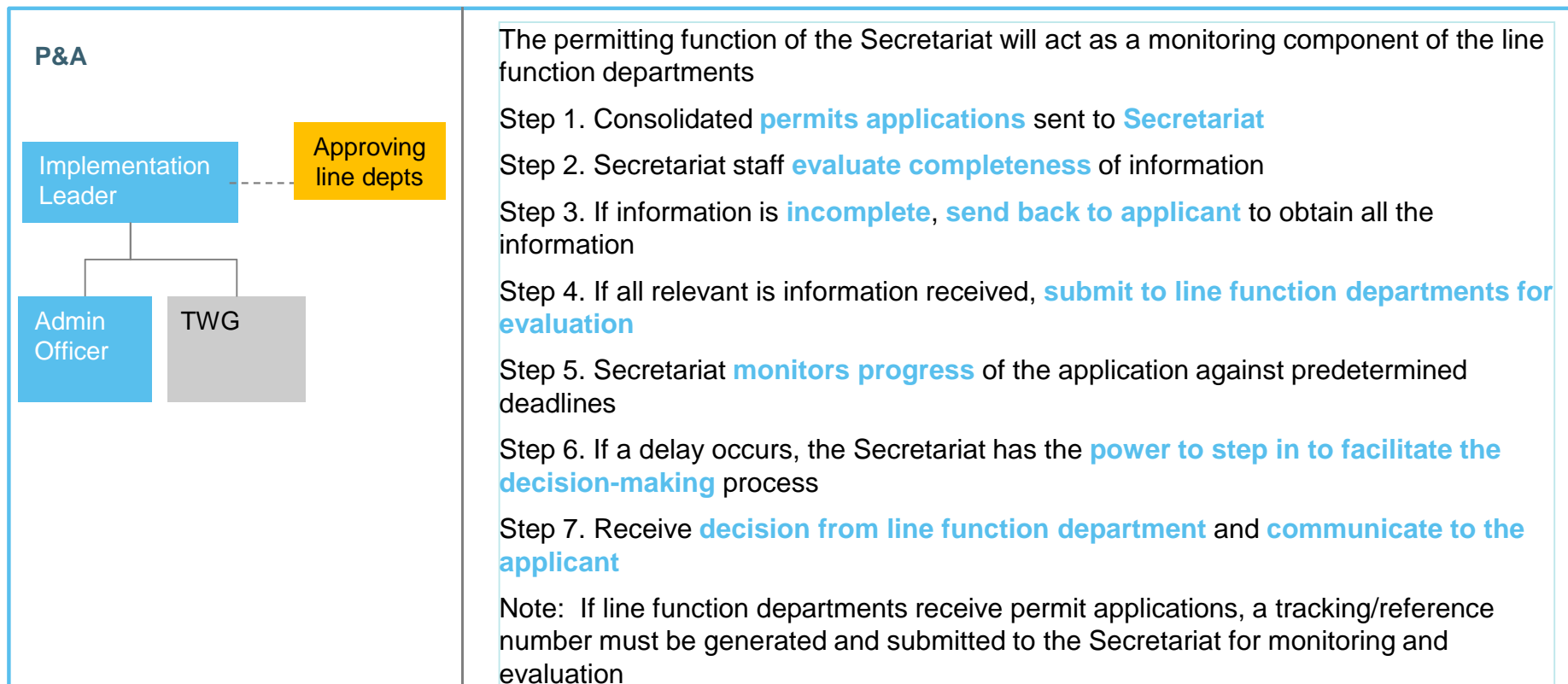
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P&A will coordinate and monitor permitting...



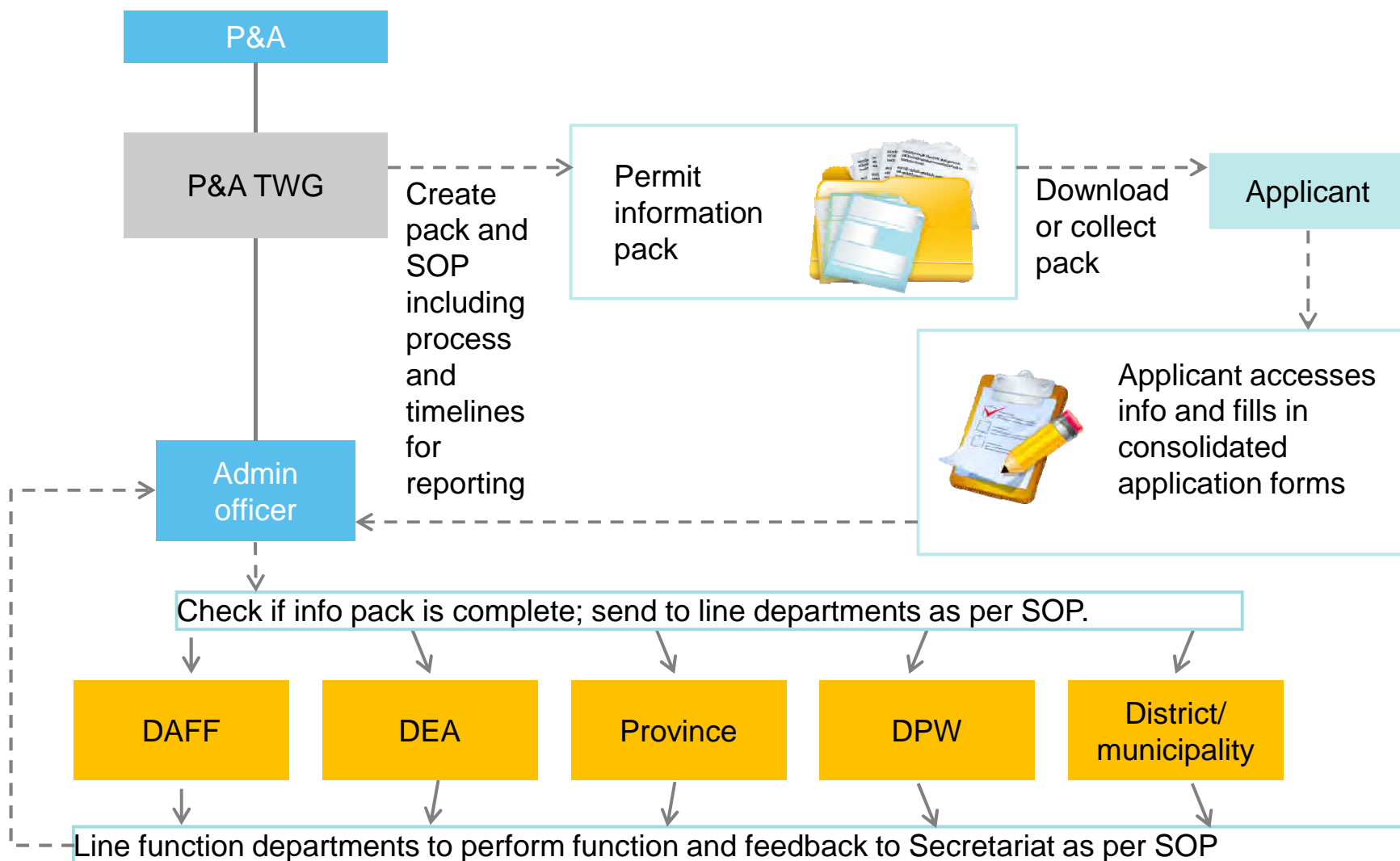
Proposed Working Group members	DAFF	DST	DOD	DED	DOE	DMR	DPW
	Sports and Recreation	State Security	Telecommunications	DOT	Tourism	DWS	Provincial departments
	DEA	NGOs	Para-statals	DOI			

... but will not take on the day-to-day permitting and authorisation mandates of the implementing line departments and agencies



Proposed Working Group members	DAFF	DST	DOD	DED	Energy	DMR	DPW
	Sports and Recreation	State Security	Telecommunications	DOT	Tourism	DWS	Provincial departments
	NGOs	Para-statals	DOI	DEA			

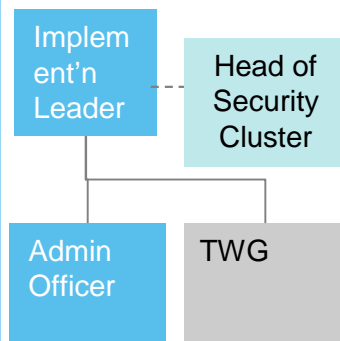
P&A can thus help to identify and resolve bottlenecks and delays in the system



3

Compliance, Surveillance and Legislation

Compliance, Surveillance and Legislation



Compliance, Enforcement and Surveillance

- Identify strategic cross-cutting compliance matters required in SA
- Coordinate inter-departmental cooperation.
- Identify and guide cross-cutting compliance monitoring, eliminating duplication
- Facilitate discussions between departments when conflict arises within compliance monitoring
- Bring international best practices to SA
- Coordinate ocean-based compliance monitoring with neighbouring countries when required
- Ensure SA is complying with signed international treaties
- Assist line function departments to align cross-cutting enforcement matters
- Liaise with the Head of the Security Cluster

Legislation

- Identify conflict within the current ocean legislation
- Identify gaps within the current legislation
- Align legislation to remove conflict and fill gaps where legislation is lacking
- Develop the Integrated Coastal and Ocean Management (ICOM) Act
 - Meet on an ad hoc basis to address comments during the public participation process and conflict around the amendment bill for the creation of the ICOM Act.

Proposed Working Group members

DAFF

Sports and Recreation

NGOs

DST

State Security

Para-statals

DOD

Telecommunications

DOI

DED

DOT

DEA

DOE

Tourism

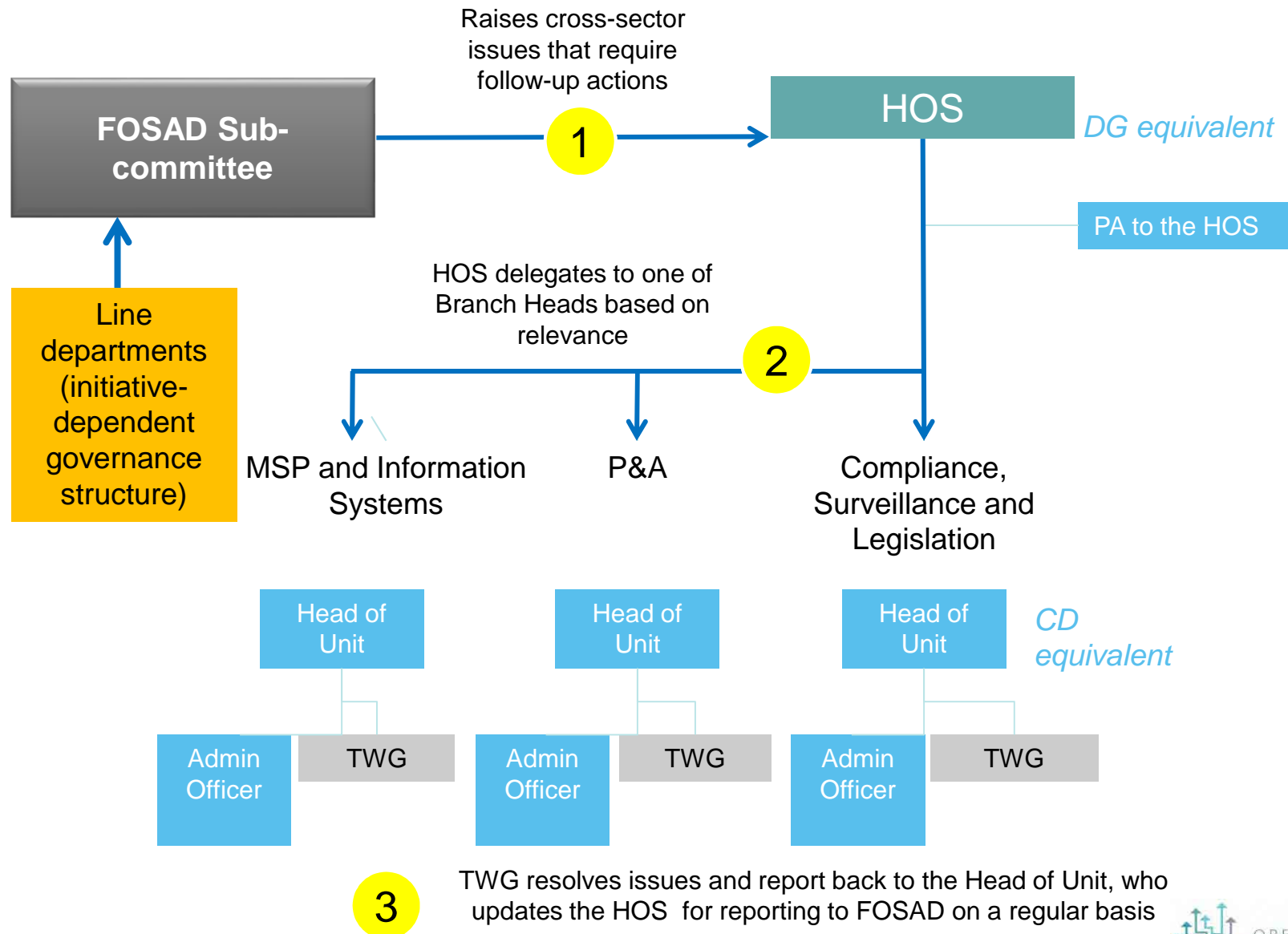
DMR

DWS

DPW

Provincial departments

The FOSAD Sub-committee sends cross-sector issues to the HOS who delegates them to the relevant unit



TWGs of experts from the public sector, industry, civil society and academia provide technical advice and expertise to each unit

a. Mandate

- Develop an ocean governance framework
- Provide consistent and consolidated advice to the DG Forum for ocean governance on scientific, technological, MSP, conflict resolution and management of trade-offs
- Establish and maintain an information database for the ocean environment
- Monitor progress of the governance outcomes

b. TOR

As a group, the TWG will:

- Act together, through the combined strengths of their individual professional contributions, to ensure the technical and practical soundness of the ocean framework
- Help ensure the consistency and appropriateness of the design, development and implementation of MSP
- Advise on appropriate analytical procedures and time lines for outputs or products in line with the ocean governance framework
- Generate reports to support their sustained use in SA oceans for both social and economic development priorities
- Identify cross-cutting technical and scientific issues across all ocean sector departments, e.g., policy development, legislation and sustainability models
- Set up a national panel of experts for MSP to provide input and create the first draft of MSP

c. Composition

Expert group **led by DDGs** that pulls in skills from departments, agencies and organisations including:

- | | | | | | |
|--------|-------------|------------|-------------|---------|---------------|
| ▪ DOT | ▪ DEA | ▪ SANParks | ▪ NMMU | ▪ CSIR | ▪ Cape Nature |
| ▪ DMR | ▪ DOE | ▪ Ecemrelo | ▪ WSU | ▪ WWF | ▪ UCT |
| ▪ DST | ▪ DPE | ▪ ECPTA | ▪ Fort Hare | ▪ SANBI | ▪ Rhodes |
| ▪ DAFF | ▪ Provinces | | | | |

Each unit receives logistical and administrative from a small group of admin officers

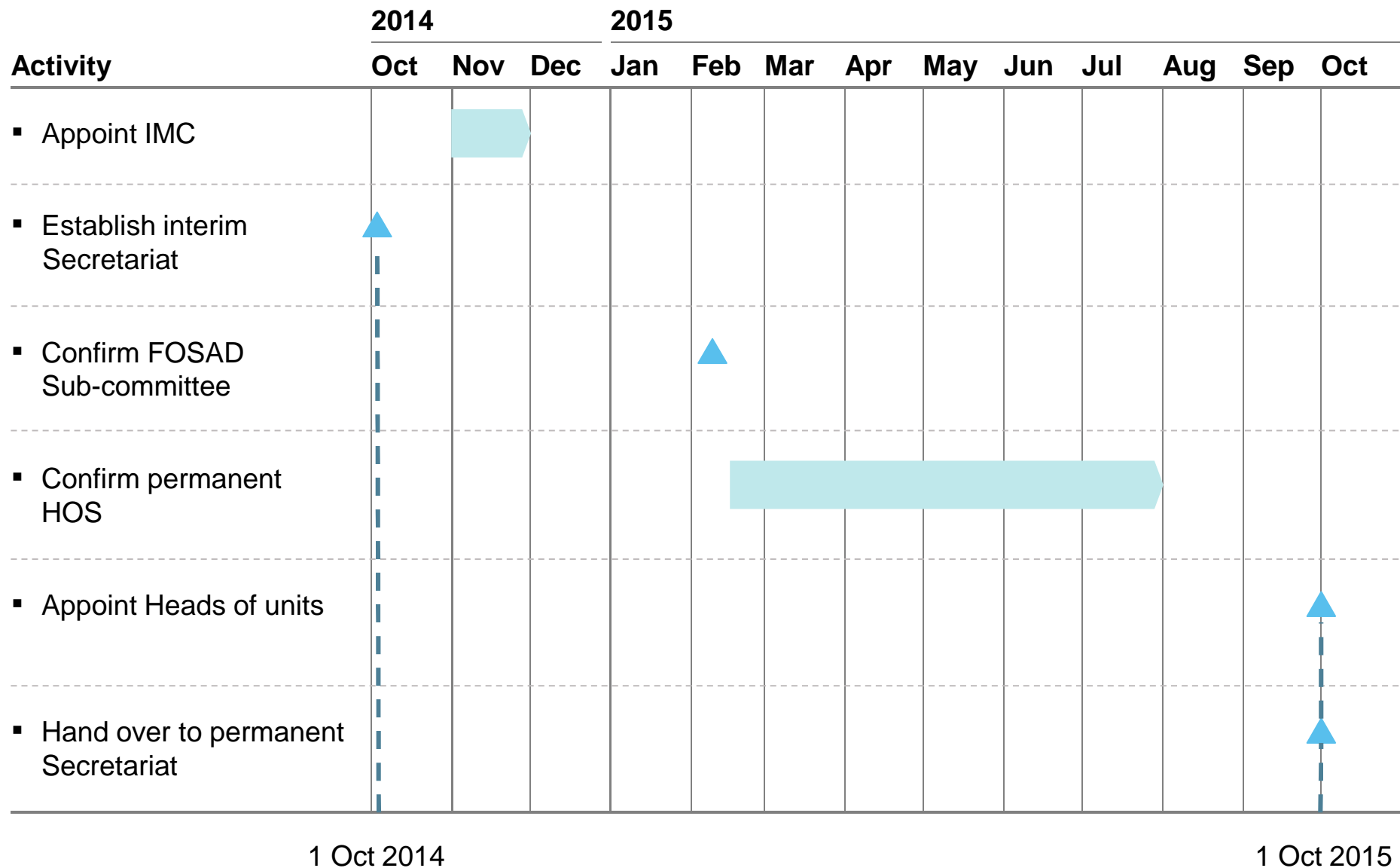
a. Mandate

- To provide administrative and logistical support to the IMC and FOSAD Sub-committee

b. The main function of the administrative layer of the Secretariat is to:

- Assist with the appointment of the Technical reference groups
- Make practical arrangements for sessions of the IMC, DG forums and TRGs
- Monitor implementation of the commitments through collection, analysis and review of information and data provided by TRGs
- Help IMC, DGs and TRGs to implement their commitments
- Support negotiations, between different departments
- Provide conflict resolution mechanisms when conflict arises in the advisory forum
- Establish and maintain a database for the ocean environment; establish and manage a web-portal to obtain information
- Provide support for compliance with the decisions taken by the IMC and FOSAD Sub-committee
- Coordinate with all relevant bodies on availability of FOSAD Sub-committee and Secretariat DDGs
- Assist members in identifying national, regional and international funding opportunities and related mechanisms
- Facilitate the coordination and liaison work of the IMC and FOSAD Sub-committee by supporting regular communication between forums

We have established the timelines required to establish this structure



2: Enhancement of legislation into the ICOM Act or Oceans Act

Case for change:

There is a legislative gap in ocean governance. Various user groups that did not previously infringe on one another now find themselves using similar areas of the marine environment. Sectorial management of marine resource use creates pressures and opportunities for human usage when addressed in a silos or separately and can have unintended consequences with respect to other sectorial uses and the marine environment itself.

Initiative details:

- Complete DEA feasibility study on appropriate legislative route
- Produce first draft Bill
- Distribute to key stakeholders identified for comment
- Pre-certification by state law advisors
- Cabinet approval for publication for comments
- Publish for public comment
- Collate comments and revise draft
- Cabinet approval of final draft of Bill
- Certification by state law advisors
- Table in Parliament
- Parliamentary processes
- Promulgate Act

Cabinet approval of Bill to be tabled in Parliament by August 2016

Implementing agency: DEA

Key stakeholders identified

- DEA
- DAFF
- DMR
- Provinces
- DOT
- DPE
- DWS

Required resources

Investment (R mn): Nil

Implementation timeframe

- Start date: September 2014
- End date: June 2017

Key milestones

- August 2015: Cabinet approval of Bill for public comment
- February 2016: Cabinet approval of Bill to be tabled in Parliament

Overarching ocean governance legislation – The case for change

South African legislation has already created a number of governance structures regulating human use in the ocean space, such as:

- National Environmental Management Act
- National Integrated Coastal Management Act
- Minerals and Petroleum Resources Development Act
- Dumping at Sea Control Act
- Geoscience Act
- Marine Living Resources Act

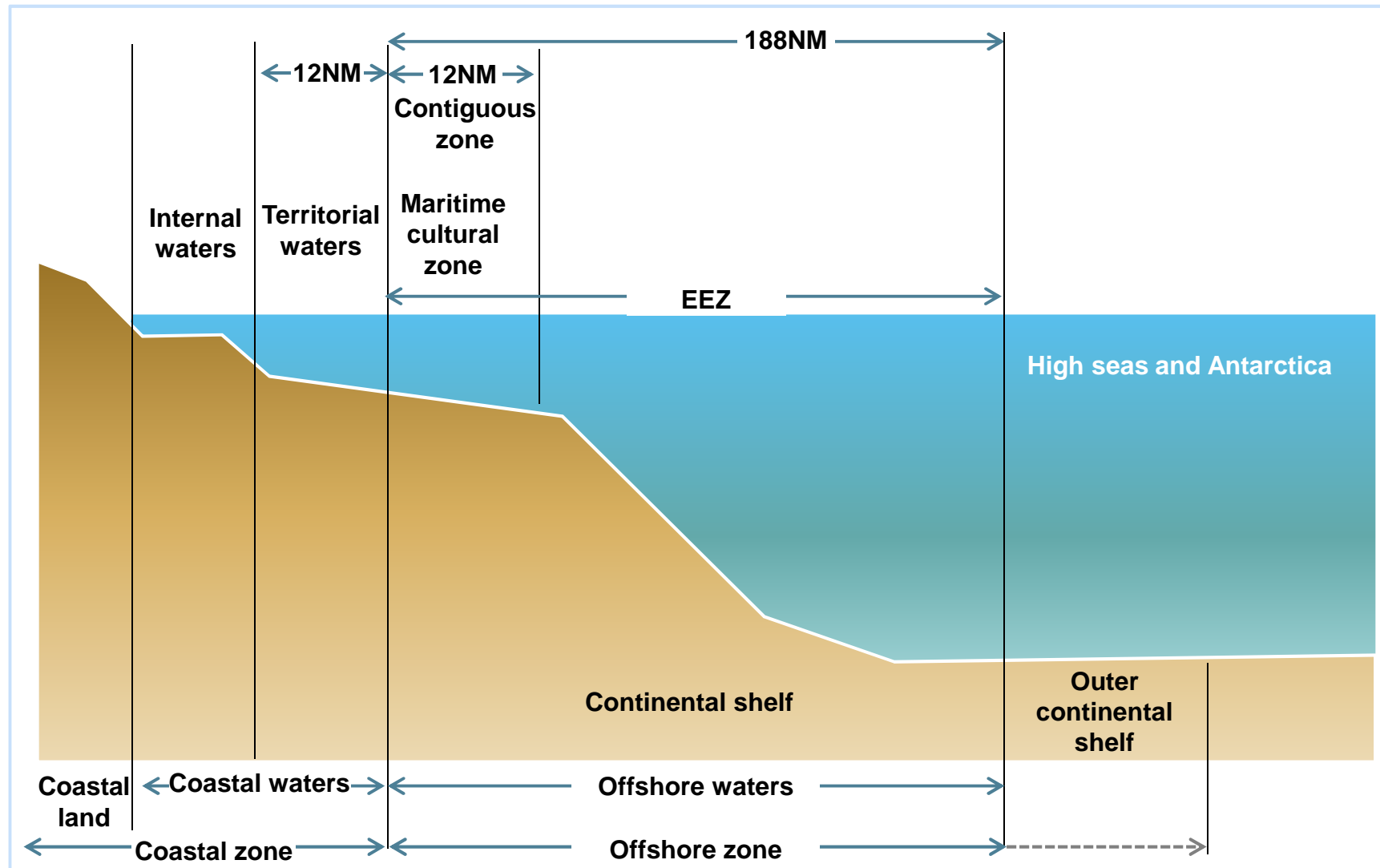
Given this legislation, it is apparent that several state organs are already playing a role in ocean governance. At present, the only legislative instrument providing a basis for integrated governance in the marine environment is the Integrated Coastal Management Act, 2008 (Act 24 of 2008, “the ICM Act”). However, its focus is limited to the coastal environment. To address this limitation, the DEA will lead the development of overarching ocean legislation that should include the following:

- The scope of application of the ocean governance regime
- The existence, composition and powers of the ocean governance structure arrangement, namely the OICM, FOSAD Sub-committee, and Secretariat
- The main principles and goals of ocean governance
- The development, adoption and implementation of MSPs
- Data collection responsibilities when issuing relevant authorisations and permits
- Dispute resolution mechanisms

2



It should also empower the Secretariat to oversee the remaining 188NM EEZ



3: Review of ocean-related legislation

Case for change:

The lack of comprehensive surveys of existing international and domestic legal instruments have an impact on ocean-related activities. Fragmentation, overlaps, conflicts and gaps exists between these instruments and have a negative impact on ocean governance and management and the blue economy.

Initiative details:

- Establish an inter-departmental task team to review and finalise:
 - The survey of existing international and domestic legal instruments that affect ocean-related activities;
 - The list of fragmentation, overlaps, conflicts and gaps between those instruments
- The task team should set up ad hoc working groups to deal with specific matters
- It should become the relevant technical committee of the Secretariat as soon as the latter is in place

Establish inter-departmental reviews of existing international and domestic marine and maritime legal instruments

Implementing agency: DEA

Key stakeholders identified

- | | | |
|--------|-------|-------------|
| ▪ DST | ▪ DOE | ▪ DOJ |
| ▪ DEA | ▪ DOT | ▪ DIRCO |
| ▪ DHET | ▪ DPE | ▪ Provinces |
| ▪ DAFF | ▪ DOE | |
| ▪ DMR | ▪ DOC | |

Required resources

Investment (ZAR mn): Nil

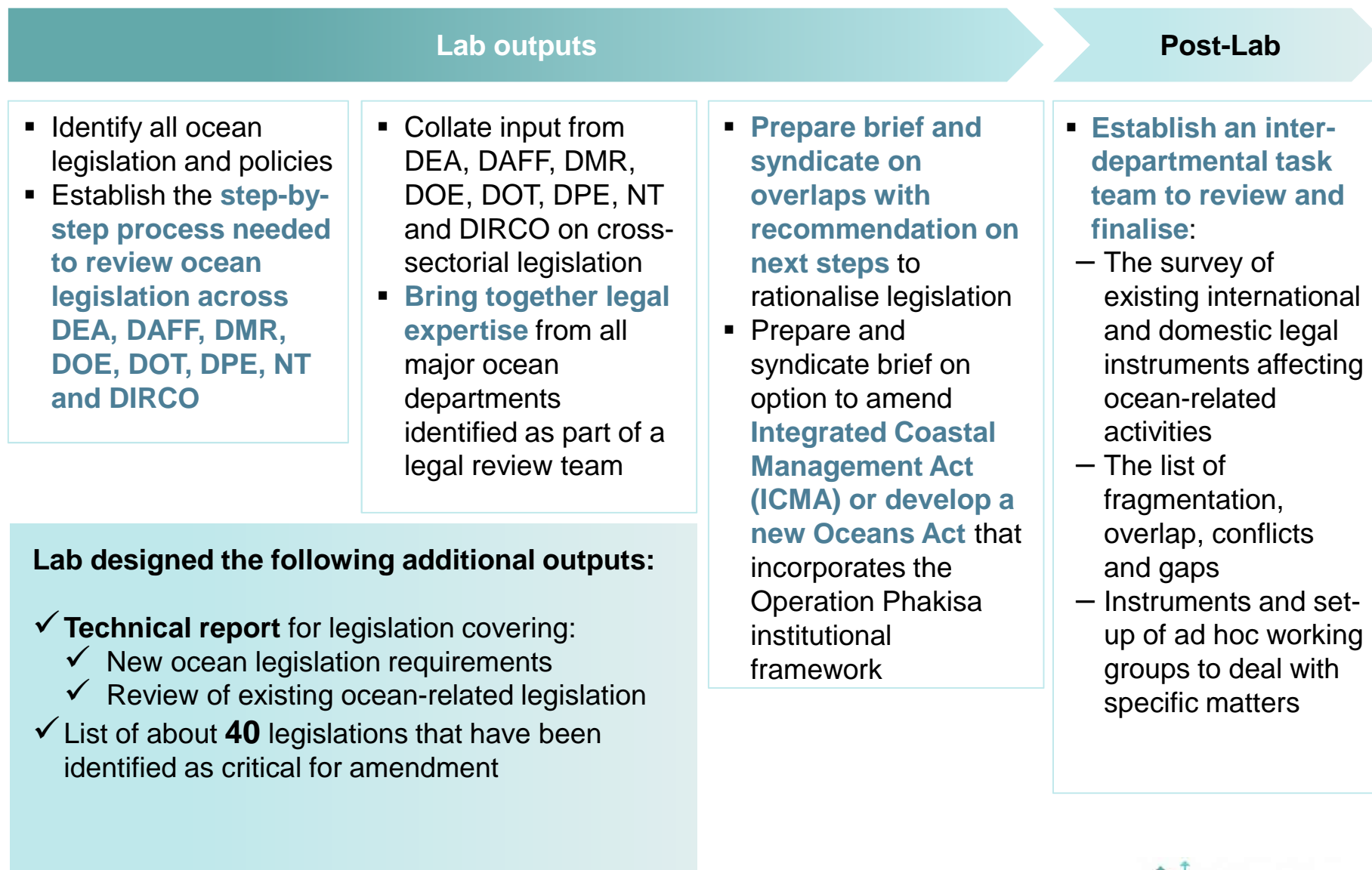
Implementation timeframe

- Start date: September 2014
- End date: Ongoing

Key milestones

- March 2015: Survey and list finalised

A review and possible amendment of cross-sectorial ocean legislation is required to establish the Secretariat



Legislation reviewed during Operation Phakisa (1 of 7)

Act (A): Amendment requires Parliament approval for it to take effect

Regulations (R): Regulation amendment (and below) can be completed at the ministerial level

Lab	#	Initiative	Legislation affected	Department	Issue with status quo	What is the amendment?	Justification on amendment	Category	When is this amendment required?
MPG	1	Possible amendment of Integrated Coastal Management Act, 2008 (ICM Act)	The whole of the Integrated Coastal Management Act, 2008 (Act 24 of 2008)	DEA	The ICM Act does not adequately provide for an ocean governance structure and mechanisms regarding the waters, seabed and subsoil beyond 12 NM	Depends on route chosen (see section 1.4 above)	To provide a basis for the proposed ocean governance structure and mechanisms regarding the waters, seabed and subsoil beyond 12 NM	A	End of June 2017
MPG	2	Regulation of the risks of shipping and seabed mining on the marine environment	Several to be identified	DEA / DAFF / DoT / DMR	South Africa is strategically located along vital shipping routes of the world connecting the economies of the east and west, with approximately 30% of world tonnage passing our coast each year. Under Operational Phakisa, the maritime transport sector has been identified as one of three priority sectors that could contribute significantly further to the country's GDP. Globally, shipping activities present several risks to the marine environment through ship-source pollution such as the potential for major oil and chemical spillages, the introduction of alien and invasive species and greenhouse gases etc.. Moreover, the dumping of wastes from seabed mining activities is not adequately regulated. Failing to manage and mitigate such risks could lead to significant environmental degradation and consequent economic losses for sectors relying on marine resources.	To be determined	In order to ensure that the risks are adequately addressed, a review of the current legislation is needed to (i) identify gaps, potential conflicts and overlaps; (ii) potential areas of alignment and streamlining; (iii) implementation challenges; (iv) clarify roles and responsibilities among the respective authorities; and (v) any other relevant matters.	A	End of June 2016
AQ	3	Amend EIA regulations	NEMA EIA regulations of 2010	DEA	The minimum threshold that triggers an EIA is too low and causes significant barrier to entrance for new entrants in the freshwater sector specifically.	Increase minimum threshold listed activity 6 (Listing notice 1)	This will allow for smaller new entrants or pilot projects to enter the sector and access funding etc.. for expansion and future growth	R	Input required in July 2014 with current amendments of regulations and should be finalized in October/November 2014
AQ	4				EIA process takes too long (up to 24 months) and can cause serious barrier to starting a new farm as opposed to other agricultural activities	Increase the maximum production threshold that trigger a basic assessment and those that require a Scoping and EIR (Activity 6, Listing notice 1 and 2)	Reduce the time frame to start a new farm from 2 years to 6 months	R	Input required in July 2014 with current amendments of regulations and should be finalized in October/November 2014

Legislation reviewed during Operation Phakisa (2 of 7)

Act (A): Act amendment requires Parliament approval for it to take effect

Regulations (R): Regulation amendment (and below) can be completed at the ministerial level

Lab	#	Initiative	Legislation affected	Department	Issue with status quo	What is the amendment?	Justification on amendment	Category	When is this amendment required?
AQ	5				Various other listed activities trigger an EIA for an Aquaculture Operation	The need for coastal discharge permit requires an EIA irrespective of size (Activity 28, Listing notice 1). Any aquaculture activity within 100m of a water body triggers an EIA (Notice 3, Activity 15)	Irrespective of amendments of tonnage above, associated triggers will still trigger a basic or scoping EIR	R	Input required in July 2014 with current amendments of regulations and should be finalized in October/November 2014
AQ	6	Finalize Norms and Standards for Abalone and Trout	NEMA Section 24 (2) (d) Norms and Standards	DEA and DPE	Standards to be finalized as an alternative to EIAs.	Fast track finalization and gazetted norms and standards for trout and abalone	Reduce start up for an operating to 30 days and improve monitoring information	R	End of November 2014
AQ	7	Zoning areas (SEA) for Aquaculture	NEMA and NEMLA 2	DEA	EIA are not the appropriate tool for environmental management of aquaculture and rather spatial planning should identify zones that require reduced or no EIAs. EIA have been done for Aquaculture Development zones but these have an expiry date	Undertake an Strategic Environmental Assessment for land based aquaculture and get ministerial approval (Chapter 5, NEMLA 2)	Significantly reduce legislative requirements within a specific zone or area so incentives to start in lower risk areas	R	Initiate in 2014 and complete by the end of 2015
AQ	8	General authorisation for Water Use Licence	Water Use licence Agreement (Water Act)	DWA	Efficiency of processing licence	Draft General authorisation for aquaculture	Reduce time delay from 4 years application to 3 months registration of General authorisation	R	End of 2015
AQ	9	Develop General Authorisation for marine aquaculture	Coastal Discharge permit under the ICM Act	DEA	Cost and administrative burden of application for industry and government	Draft General authorisation for aquaculture	Reduce cost of R150 000 to R1000 and administrative burden y 80%	R	End of May 2015
AQ	10	DTI industrial procurement		DTI	It does not include fish/aquaculture products		Increase market potential of local products for prisons, etc.		
AQ	11	Tenure and cost of Transnet leases for sea space	Ports Act or Policy	Transnet	Cost of leases are higher than international prices and tenure only extends to 5 years		Reduce cost and increase security of tenure		Willem van Zyl ? O&G? TM?
DOT	12	Review of Merchant Shipping Act, 1951	Merchant Shipping Act, 1951 (Act 57 of 1951) and Regulations thereto	DoT	1. Outdated/non-compliance with the latest Conventions and Protocols; (SOLAS 74/78, FAL 1965, Load Lines 1966, Tonnage Convention 1969, Collision Regulation 1972, LLMC 1976, STCW 1978, AFS 2001, STCW 2005, MLC 2005, Work in Fishing C188 2007) 2. Not adequately addressing the social welfare of the seafarers; 3. Not adequately addressing the social welfare of fishing personnel; 4. Occupational health and safety of the seafarers	New Act and Regulations	Review of the Act and Regulations to be aligned with the conventions. (currently assisted by IMO on the amendments)	A	End of November 2019

Legislation reviewed during Operation Phakisa (3 of 7)

Act (A): Act amendment requires Parliament approval for it to take effect

Regulations (R): Regulation amendment (and below) can be completed at the ministerial level

Lab	#	Initiative	Legislation affected	Department	Issue with status quo	What is the amendment?	Justification on amendment	Category	When is this amendment required?
DOT	13	Ranking of maritime claims and other AJRA matters	Admiralty Jurisdiction Regulation Act, 1983 (Act 105 of 1983) section 11 as well as sections 3(7)(b)(ii) and 6 together with the associated ship provisions	DoT / DoJ	Delay in the processing of the Bill by Department of Justice in relation to the ranking of maritime claims. The issue of whether the associated ship provisions should distinguish between commercial control and political control also needs to be addressed as well as the issue of whether the judgement in the MV ALINA II requires changes to the Act.	Admiralty Jurisdiction Regulation Amendment Bill, 2015	It is necessary to remove the negative impact on the mortgage bonds for the purchase of ships. It is also necessary to clarify the legal uncertainties existing at present.	A	End of November 2015
DOT	14	Removal of overlapping mandates with regard to in-shore vessel traffic services	Marine Traffic Act, 1981 (Act 2 of 1981), specifically the Marine Traffic (Inshore Vessel Traffic Services) Regulations, 2000 National Ports Act, 2005 (Act 12 of 2005) s 11(1)(o)	DoT	SAMSA and National Ports Authority have overlapping mandates with regard to in-shore vessel traffic services	Mandate given only to one of the two entities	There should not be any overlap	A	End of November 2015
DOT	15	Removal of obsolete provisions in the Marine Pollution (Control and Civil Liability) Act	Marine Pollution (Control and Civil Liability) Act, 1981 (Act 6 of 1981)	DoT / DEA	The Merchant Shipping (Civil Liability Convention) Act, 2013 (Act 25 of 2013) does not expressly repeal the provisions of Act 6 of 1981 dealing with tankers, which are now obsolete, coming into effect on the Act.	The provisions of Act 6 of 1981 dealing with tankers, which are now obsolete,	To remove any possible doubt regarding the obsolescence of the said provisions	A	End of November 2015
DOT	16	Monitoring of developments regarding the carriage of goods by sea	Carriage of Goods by Sea Act, 1986 (Act 1 of 1986)	DoT	The Act is still based on the 1968 Hague-Visby Rules	Review and amendment of the Act if the Rotterdam Rules become widely accepted	There is a need to keep aligned with the Rules which encourage ship owners to register vessels on the South African Registry (the Hamburg Rules do not do so but the Rotterdam Rules will hopefully do so once more widely accepted)	A	Ongoing
DOT	17	MARPOL developments	Marine Pollution (Prevention of Pollution from Ships) Act 1986 (Act 2 of 1986)	DoT / DEA	The Act does not incorporate Annexes 1, 2, 3 and 5 of MARPOL into South African law	Amendment of the Act to incorporate the annexes into South African law	Our domestic legislation must be aligned to our international obligations as a Party to MARPOL	A	End of November 2016
DOT	18	Intervention Act	Marine Pollution (Intervention) Act, 1987 (Act 64 of 1987)	DoT / DEA	See initiative 2 above				
DOT	19	Outer limits of the continental shelf	Maritime Zones Act, 1994 (Act 15 of 1994)	DoT	The limits in Schedule 3 of the Act do not reflect the claim submitted to the Commission on the Limits of the Continental Shelf	Amendment of Schedule 3	Our domestic legislation must reflect the extent of our outer continental shelf once our submissions has been processed	A	Ongoing

Legislation reviewed during Operation Phakisa (4 of 7)

Act (A): Act amendment requires Parliament approval for it to take effect

Regulations (R): Regulation amendment (and below) can be completed at the ministerial level

Lab	#	Initiative	Legislation affected	Department	Issue with status quo	What is the amendment?	Justification on amendment	Category	When is this amendment required?
DOT	20	Removal of wrecks	Wreck and Salvage Act, 1996 (Act 94 of 1996) Marine Traffic Act, 1981 (Act 2 of 1981) Maritime Zones Act, 1994 (Act 15 of 1994) Marine Pollution (Control and Civil Liability) Act, 1981 (Act 6 of 1981) National Ports Act, 2005 (Act 12 of 2005) National Environmental Management Act, 1998 (Act 107 of 1998) National Environmental Management: Integrated Coastal Management Act, 2008 (Act 24 of 2008)	DoT	Section 18 of the Act is the only provision dealing with the removal of wrecks and does not regulate the related legal issues in the same way as the 2007 Nairobi International Convention on the Removal of Wrecks does. There are also difficulties arising from provisions in other pieces of legislation.	Incorporation of the Convention into the Act and amendment of other related legislation	Our domestic law would be improved if the legal issues relating to the removal of wrecks were to be regulated in the same way as the 2007 Nairobi International Convention on the Removal of Wrecks	A	End of November 2016
DOT	21	Ship registration	Ship Registration Act, 1998 (Act 58 of 1998)	DoT	No action required.				
DOT	22	Civil Liability Convention Act	Merchant Shipping (Civil Liability Convention) Act, 2013 (Act 25 of 2013), section 15(1)(h)	DoT / DEA	No regulations yet	Regulations made	It is not possible to properly implement or administer certain provisions of the Act without regulations	R	End of February 2015
DOT	23	IOPC Fund Act	Merchant Shipping (International Oil Pollution Compensation Fund) Act, 2013 (Act 24 of 2013), section 11(1)(c)	DoT / DEA	No regulations yet	Regulations made	It is not possible to properly implement or administer certain provisions of the Act without regulations	R	End of February 2015
DOT	24	IOPC Admin Act	Merchant Shipping (International Oil Pollution Compensation Fund) Administration Act, 2013 (Act 35 of 2013), section 2 Tax Administration Act, 2011 (Act 28 of 2011), section 257(1)(a)	Treasury / DEA / others	No regulations yet			R	Oil and Gas Lab
DOT	25	IOPC Contribution Act	Merchant Shipping (International Oil Pollution Compensation Fund) Contribution Act, 2013 (Act 36 of 2013), section 2 Tax Administration Act, 2011 (Act 28 of 2011), section 257(1)(a)	Treasury / DEA / others	No regulations yet			R	Oil and Gas Lab

SOURCE: Operation Phakisa oceans governance legal technical report

Legislation reviewed during Operation Phakisa (5 of 7)

Act (A): Act amendment requires Parliament approval for it to take effect

Regulations (R): Regulation amendment (and below) can be completed at the ministerial level

Lab	#	Initiative	Legislation affected	Department	Issue with status quo	What is the amendment?	Justification on amendment	Category	When is this amendment required?
DOT	26	Containers Act	Merchant Shipping (Safe Containers Convention) Act, 2011 (Act 10 of 2011), section 10(1)(g)	DoT	No regulations yet	Regulations made	It is not possible to properly implement or administer certain provisions of the Act without regulations	R	End of August 2015
DOT	27	Incorporation of the NPA	National Ports Act, 2005 (Act 12 of 2005), section 3(2)	DOT / DPE	The provision has not been complied with in that the NPA has not been incorporated yet	If amendment is to be made, replace the word "must" with the word "may"	The situation must be addressed either by complying with the provision or amending the said provision	A	End of November 2014 (no amendment) End of November 2015 (amendment)
DOT	28	Dumping at sea	Dumping at Sea Control Act, 1980 (Act 73 of 1980)	DEA	See initiative 2 above				
DOT	29	Ballast water	Draft Ballast Water Management Bill, 2013 (GG 36330 of 3 April 2013)	DoT / DEA	South Africa ratified the 2004 International Convention for the Control and Management of Ships' Ballast Water and Sediments, which is likely to come into effect soon, and the Convention has not been incorporated into domestic law yet	A statute needs to be enacted	South African law needs to conform with the Convention once it comes into effect	A	End of February 2015 (Bill finalisation)
DOT	30	Maritime security	Merchant Shipping (Maritime Security) Regulations, 2004	DoT	Gaps have been identified in the Regulations	Gaps addressed	The gaps need to be addressed	R	End of October 2015
DOT	31	Sewage and air pollution	Marine Pollution (Prevention of Pollution from Ships) Act, 1986 (Act 2 of 1986)	DoT	There are no provisions in South African law to regulate sewage and air pollution from ships	Incorporation of annexes 4 and 6 of MARPOL	There should be legislative provisions to ensure that efficient facilities for the treatment and disposal of sewage are in place and for controlling air pollutions from ships	A	End of September 2016
DOT	32	Construction of, and equipment on board, fishing vessels	No legislation in place	DoT / DAFF / DIRCO	There are no provisions in South African law to ensure that fishing vessels operating in our waters are safe in terms of the standards set by the 1993 Protocol to the 1977 Torremolinos International Convention for the Safety of Fishing Vessels together with the 2012 Cape Town Agreement on the Implementation of the 1993 Protocol	Enactment of new Bill to incorporate the standards set by the Protocol and the Agreement	It is necessary to ensure that fishing vessels operating in the South African waters are safe and the obvious standards to use are those set by the 1993 Protocol to the 1977 Torremolinos International Convention for the Safety of Fishing Vessels together with the 2012 Cape Town Agreement on the Implementation of the 1993 Protocol. Moreover, South Africa took the lead in facilitating the implementation of the 1993 Protocol by hosting an international conference in Cape Town in 2012.	A	End of November 2016

Legislation reviewed during Operation Phakisa (6 of 7)

Act (A): Act amendment requires Parliament approval for it to take effect

Regulations (R): Regulation amendment (and below) can be completed at the ministerial level

Lab	#	Initiative	Legislation affected	Department	Issue with status quo	What is the amendment?	Justification on amendment	Category	When is this amendment required?
	33	Conservation and sustainable use of marine biological diversity beyond areas of national jurisdiction	No legislation in place	DEA / DAFF / DIRCO	There are no provisions in South African law dealing specifically with the conservation and sustainable use of marine biological diversity beyond areas of national jurisdiction	To be determined	It is necessary for South Africa to have provisions dealing with the conservation and sustainable use of marine biological diversity beyond areas of national jurisdiction because it stands to benefit from providing environmental, maintenance and other relevant services to off-shore mineral exploration and exploitation operations in its adjacent oceans. Moreover, such provisions will address the concerns of the biotechnology industry that the current uncertain and unpredictable legal and regulatory framework may hamper the flow of ideas and products from the marine biome and inhibit future research, development and commercialisation of novel compounds to treat disease, for instance.	A	Ongoing
	34	Aquaculture regulation	Mainly the Marine Living Resources Act, 1998 (Act 18 of 1998)	DAFF	The main issue is that the aquaculture sector is currently governed by fragmented pieces of legislation (over 40 national Acts) implemented by various government departments and statutory bodies. Moreover no single department or statutory body has a mandate or capacity to provide the integrated service that the aquaculture sector will need for sustainable development.	New Aquaculture Act	The Act will assist DAFF to have legislation that will provide the overarching enabling environment for aquaculture to thrive in South Africa.	A	End of August 2016
	35	High water mark delineation	Integrated Coastal Management Act, 2008 (Act 24 of 2008), section 14	DEA	No difficulty.				
	36	Carriage of minerals	Mineral and Petroleum Resources Development Act, 2002 (Act 28 of 2002) Minerals Petroleum Resources Development Bill of 2013	DMR	The Act does not encourage local miners to adopt CIF terms rather than FOB terms for the carriage of their goods and, as a result, they are not encouraged to use ships registered in South Africa. Moreover, the meaning of the concept of "transportation" is unclear with a negative impact on beneficiation and the employment of South African seafarers.	Minerals and Petroleum Resources Development Bill of 2013	The Act should be amended to encourage local miners to adopt CIF terms rather than FOB terms for the carriage of their goods in order to encourage the use of ships registered in South Africa. Moreover, the meaning of the concept of "transportation" needs to be clarified in such a way that it has a positive impact on beneficiation and the employment of South African seafarers.	A	End of November 2014

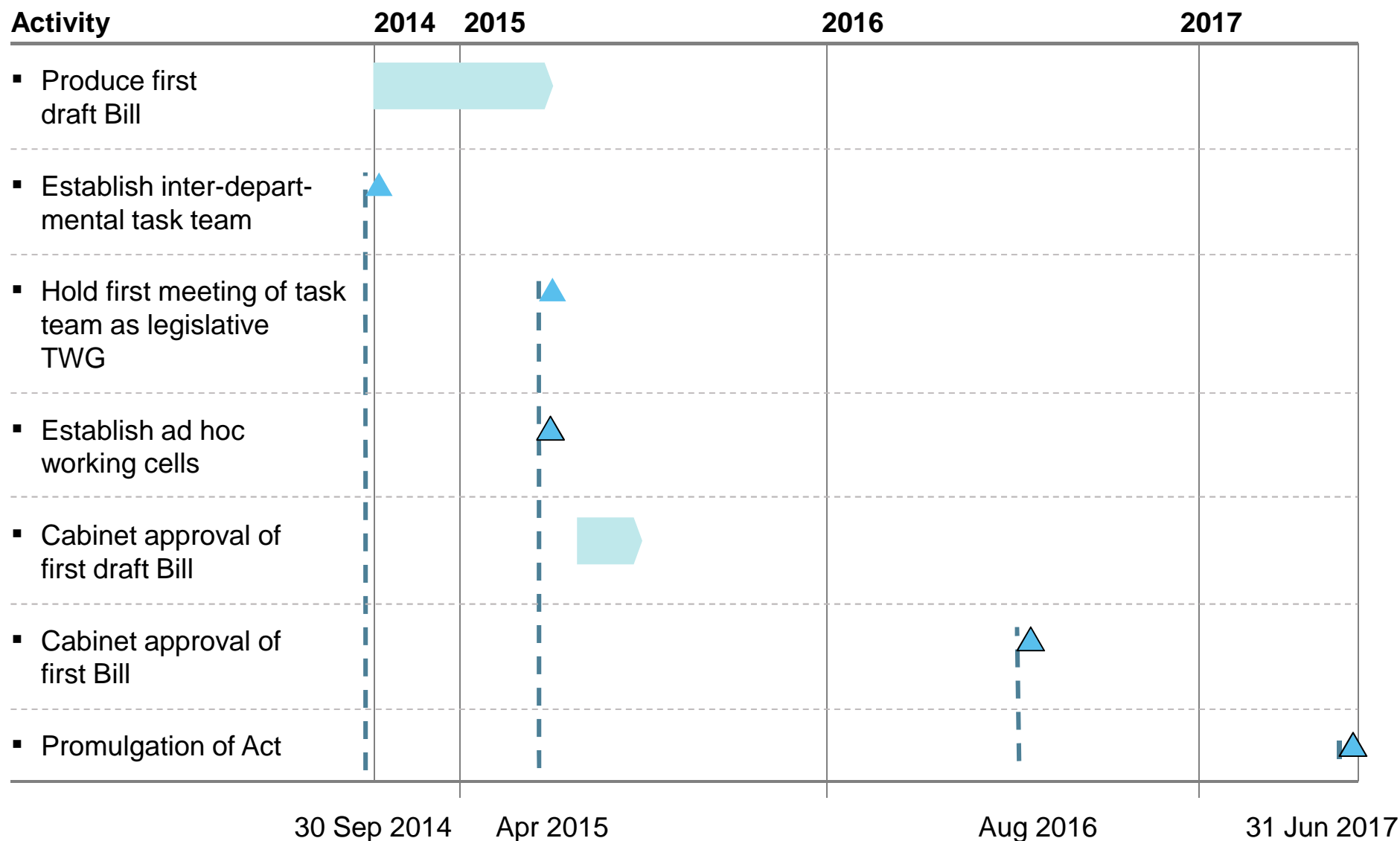
Legislation reviewed during Operation Phakisa (7 of 7)

Act (A): Act amendment requires Parliament approval for it to take effect

Regulations (R): Regulation amendment (and below) can be completed at the ministerial level

Lab	#	Initiative	Legislation affected	Department	Issue with status quo	What is the amendment?	Justification on amendment	Category	When is this amendment required?
	37	Recapitalisation of fishing fleet	Marine Living Resources Act, 1998 (Act 18 of 1998), section 18(6)	DAFF	It is argued that the current duration of fishing rights / allocations does not support recapitalisation.	Amendment of the provision(s) if deemed necessary	Financing and depreciation rates require long term certainty related to CAPEX.	A	By the time the 2015 / 2020 fishing rights / allocation framework is finalised
	38	Alignment of BEE Charters	Mineral and Petroleum Resources Development Act, 2002 (Act 28 of 2002) Minerals and Petroleum Resources Development Amendment Bill 15 of 2013, section 1(zA)(b)	DMR	The Black Economic Empowerment (BEE) Charter of Mineral Resources is not aligned with the B-B BEE Charter for Transport and, as a result, it is difficult for new entrants in the shipping sector to access break-bulk mineral cargo.	N/A (amendment to the Mining Charter)	Alignment will make it easier for new entrants in the shipping sector to compete for break-bulk mineral cargo.	N/A	End of November 2014
	39	Coastal trade (sabotage)	No applicable legislation at present	DoT	See sections 2.3.2.2 and 2.3.2.3 below.	Regulation of Coastal Trade and Promotion of National Carrier Fleet Act	See sections 2.3.2.2 and 2.3.2.3 below.	A	End of October 2015
	40	Tax exemption for national shipping	Income Tax Act, 1962 (Act 58 of 1962), section 12Q, inserted by section 41(1) of the Taxation Laws Amendment Act, 2013 (Act 31 of 2013)	Treasury / DoT	The separate dispensation granted in respect of ships used in international shipping is not granted in respect of ships used in national shipping.	Amendment to section 12Q	To support offshore operations within the South African EEZ and international waters as well as the development of the maritime industry.	A	End of 2015
	41	Temporary imported oil and gas components	Customs and Excise Act, 1964 (Act 91 of 1964) schedule 4	Treasury	The importation of components for oil and gas purposes results in VAT and import duties having to be paid although the said components will be exported (for use in foreign maritime zones)	Creation of a new rebate Item 460.22, for repair and maintenance of equipment for re-export	The repair and manufacturing for the oil and gas industry will be more competitive.	A	End of 2014
	42	Local content for oil and gas and ship building	Preference Procurement Policy Framework Act, 2000 (Act 5 of 2000), Preferential Procurement Regulations, 2011, regulation 9	Treasury / DTI	It is not specified in the PASA Licensing Agreement for Production that there should be local content. Moreover, when the State procures ships it is not currently compelled to demand local content.	Regulation 9 amended (together with amendment of the Production Licensing Agreement)	The amendment would support local content in the production of oil and gas in South African waters as well as ship building in South Africa.	R	End of June 2015

We have established the timelines required to plan and launch the proposed legislative process



4: Accelerated capacity building in ocean governance to support short- and long-term skill development

Case for change:

Ending the fragmentation of current programmes that seek to grow capacity for ocean and coastal governance and improve stewardship will require a new, broadly adopted framework for capacity-building programmes that emphasises cooperation, sustainability, and knowledge transfer within and among role players in the ocean environment.

Initiative details:

PRIORITY 1: Short-term capacity-building for the Secretariat

- Urgent need to build and empower human capacity in the ocean economy to carry out day-to-day operations and implement the governance framework

PRIORITY 2: Long-term capacity-building for ocean governance and enforcement

- Help the DHET to build ocean governance capacity into the national human capital development plan on the pathway to expertise using the Occupational Team (OT) methodology
- Develop local open-source learning resources for educators and students at higher education institutions to develop, critique and share academic resources in support of ocean governance and enforcement
- Develop a skills development bridging programme between high school and post-school to support career choices in ocean governance as a pilot for a national oceans skills bridging programme
- Undertake an integrated training initiative for DEA, DAFF, EPWP, provincial and local partner staff/volunteers on monitoring, compliance and enforcement

Implementing agency: DHET

Key stakeholders identified

- | | | |
|--------|--------|-------------|
| ▪ DST | ▪ DOE | ▪ DUT |
| ▪ DEA | ▪ DOT | ▪ SAMSA |
| ▪ DAFF | ▪ DPME | ▪ Transnet |
| ▪ DMR | ▪ DPE | ▪ Port |
| ▪ NMMU | ▪ UKZN | Regulator |
| ▪ UCT | ▪ CPUT | ▪ Provinces |

Required resources

Investment (ZAR mn): 4.41

Implementation timeframe

- Start date: September 2014
- End date: Ongoing

Key milestones

- Annual increase in the number of FOCs and EMIs; refer to KPI sheet

Short-term skill development for the Secretariat will train local officers in governance and protection services

Before

Limited skills in ocean governance and thus limited job opportunities

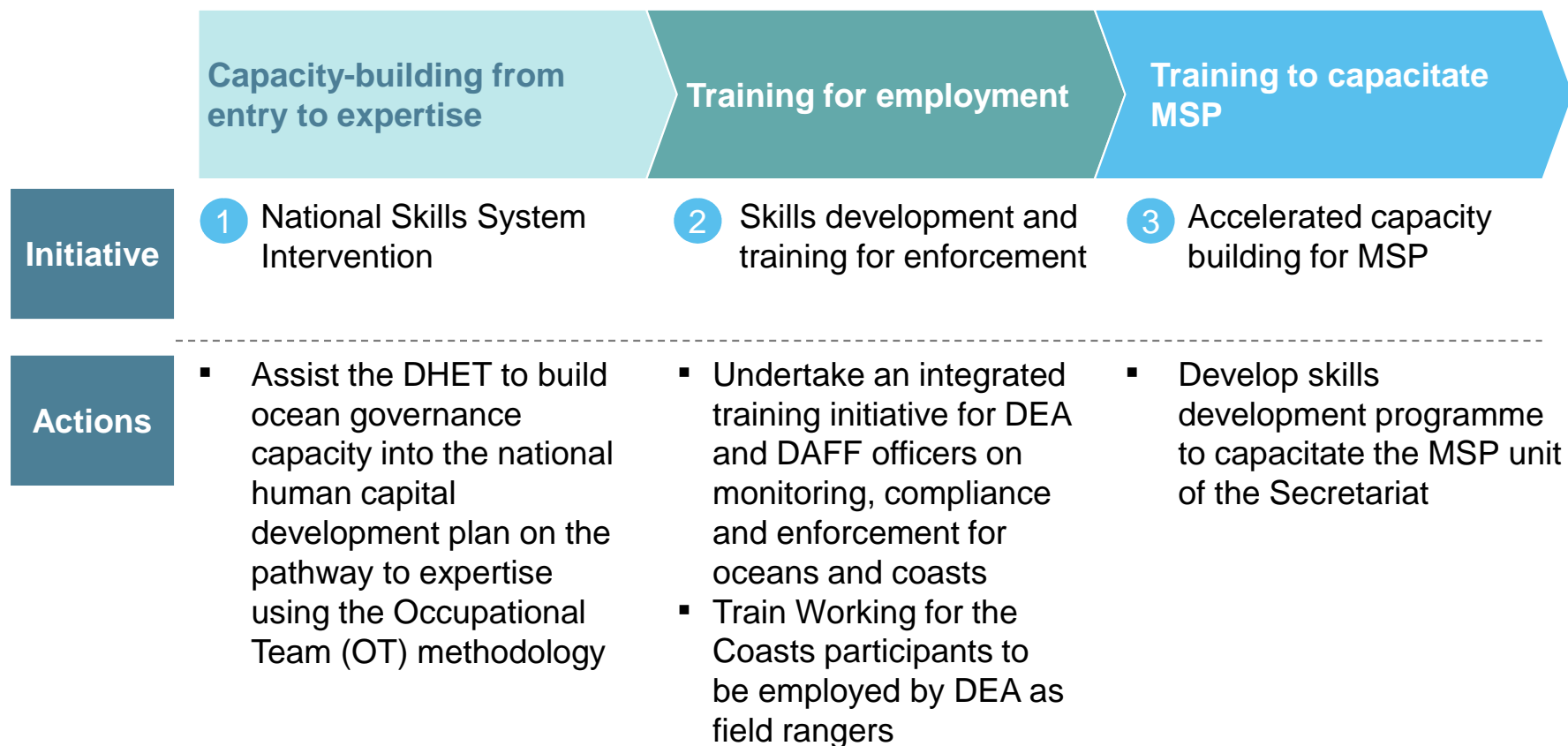


After

Accelerated capacity-building will ramp up the skills required to staff the Secretariat and empower more officers in the governance space



Long-term capacity-building for oceans governance and enforcement covers three areas



The National Skills System Intervention focuses on including emerging skills in the national plan

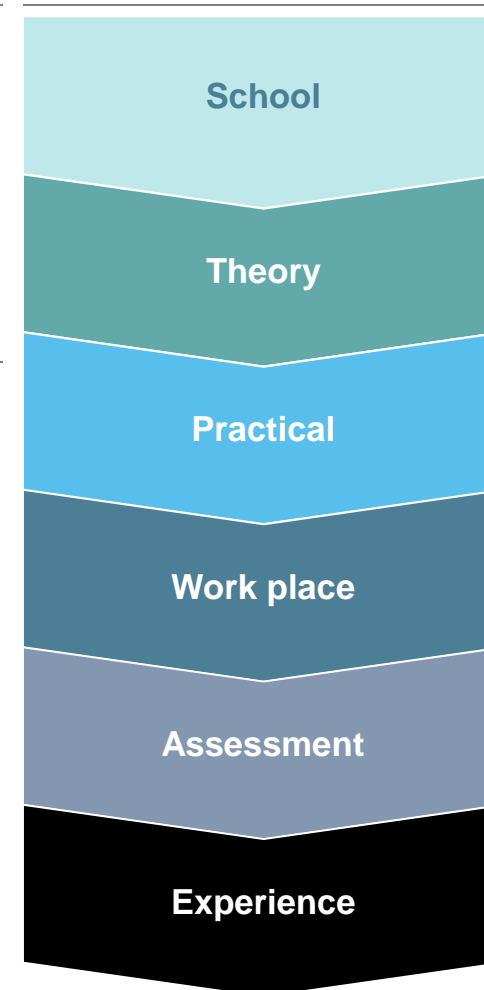
Case for change

- Emerging skills have not been included in the current national skills system
- This has a snowball effect on the curriculum, awareness and funding from SETAs
- Industry's HR department benchmarks are based on the national skills system
- This means that industry can't create training/skills plans, or update their scorecards or training incentives

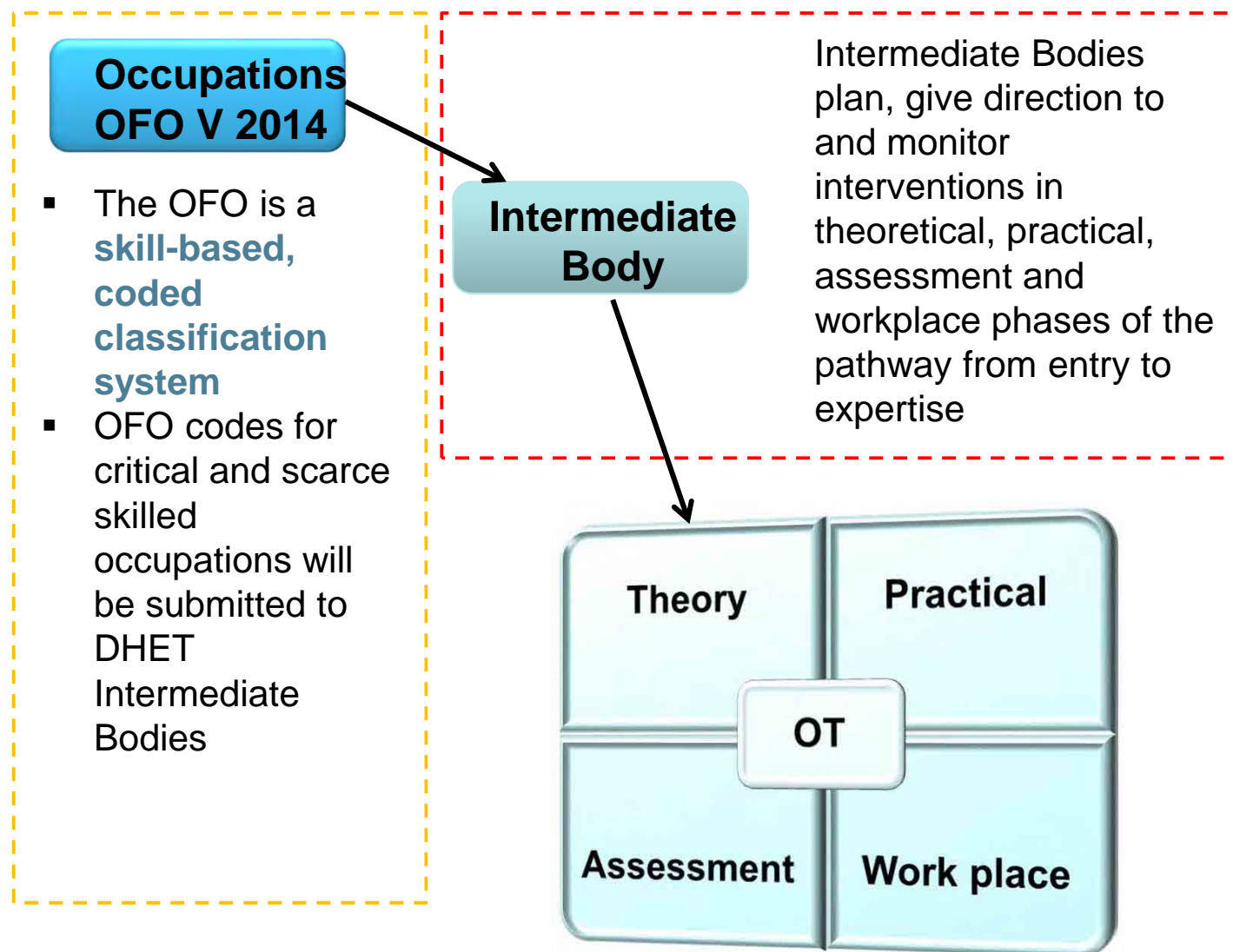
Initiative details

- The DHET pathway to expertise in these emerging skills consists of completion of a foundation programme, practical training and structured work experience. This initiative will focus on building capacity across the pathway as follows:
 - Identify Organising Framework for Occupations (OFO) codes for marine protection services and ocean governance
 - Where OFO codes do not exist for emerging or new skills, provide descriptors
 - Consolidate the list across new growth areas
 - Submit the list of OFOs to the DHET to delegate to existing or new intermediate groups
 - Thereafter, the DHET will build ocean governance capacity into the national human capital development plan along the pathway to expertise using the Occupational Team (OT) methodology

DHET pathway to expertise



We will use the Occupational Teams (OT) methodology to capacitate potential employees in the sector



Many of the skills required for marine governance are critical or scarce (1/4)

	Mellisa to please assist with OFOs – no specialisation or tasks differ	What is the higher education gap?	Holistic development	Which HEIs should we be focusing on?	Description of interactions required for multi-transdisciplinarity - postgrad
Biodiversity planner	2133	<ul style="list-style-type: none"> Postgraduate for marine specialisation 	<ul style="list-style-type: none"> Foundational support included in academic support to help previously disadvantaged individuals to improve their scientific skills 	<ul style="list-style-type: none"> SUN, UP - marine specialisation 	<ul style="list-style-type: none"> Study path allowing transdisciplinarity for marine biodiversity planning Masters and Phd. Reliant on GIS and MSP undergrads
Policy analyst/ advisor	242202	<ul style="list-style-type: none"> No ocean governance postgraduate study path in South Africa 	<ul style="list-style-type: none"> Foundational support included in academic support to assist previously disadvantaged individuals to improve their scientific skills 	<ul style="list-style-type: none"> NMMU 	<ul style="list-style-type: none"> Ocean governance
Statistical ecologist	212103	<ul style="list-style-type: none"> Required postgraduate module in natural sciences 	<ul style="list-style-type: none"> 	<ul style="list-style-type: none"> Wits 	<ul style="list-style-type: none"> MSc or PhD in Biostatistics offered mostly from a medical perspective, not natural sciences
Biodiversity information management technician	262202	<ul style="list-style-type: none"> CoE not capacitated, requires inter-university partnership and international capacity to fast track curriculum development 	<ul style="list-style-type: none"> Foundational support included in academic support to assist previously disadvantaged individuals to improve their scientific skills 	<ul style="list-style-type: none"> CPUT, UWC/UKZN partnerships 	<ul style="list-style-type: none"> Remote Sensing and GIS available through short courses, requires a formal study path
Biodiversity information management specialist	262202	<ul style="list-style-type: none"> CoE not capacitated, requires inter-university partnership and international capacity to fast track curriculum development 	<ul style="list-style-type: none"> Foundational support included in academic support to assist previously disadvantaged individuals to improve their scientific skills 	<ul style="list-style-type: none"> UWC/UKZN 	<ul style="list-style-type: none"> Remote Sensing and GIS available through short courses, requires a formal study path
Earth observation	Not on OFO	<ul style="list-style-type: none"> Stellenbosch, CPUT, Fort Hare, Rhodes, UWC research partnerships on applications, research and postgraduate/higher level skills development for specialisation 	<ul style="list-style-type: none"> Foundational support included in academic support to assist previously disadvantaged individuals to improve their scientific skills 	<ul style="list-style-type: none"> Partnerships to ink application and research for higher level skills development 	<ul style="list-style-type: none"> Extend UWC Earth Observation applications to include marine. Fasttrack Fort Hare CoE

Many of the skills required for marine governance are critical or scarce (2/4)

	Mellisa to please assist with OFOs – no specialisation or tasks differ	What is the higher education gap?	Holistic development	Which HEIs should we be focusing on?	Description of interactions required for multi-transdisciplinarity - postgrad
Marine social ecologist	235101/263204	<ul style="list-style-type: none"> Most universities without easily accessible environmental, marine specialisation 	<ul style="list-style-type: none"> Foundational support included in academic support to assist previously disadvantaged individuals to improve their scientific skills 	<ul style="list-style-type: none"> NWU and UCT partnership. Implementation of transdisciplinary concept – Lesley Green 	<ul style="list-style-type: none"> Lack of transdisciplinarity to include marine, biodiversity, law of the sea/ocean governance social sciences
Marine ecologist	213301	<ul style="list-style-type: none"> ... 	<ul style="list-style-type: none"> ... 	<ul style="list-style-type: none"> ... 	<ul style="list-style-type: none"> ...
MPA manager	213307	<ul style="list-style-type: none"> ... 	<ul style="list-style-type: none"> ... 	<ul style="list-style-type: none"> ... 	<ul style="list-style-type: none"> ...
Resource economist	263101	<ul style="list-style-type: none"> ... 	<ul style="list-style-type: none"> Foundational support included in academic support to assist previously disadvantaged individuals to improve their scientific skills 	<ul style="list-style-type: none"> UP, UCT and Wits 	<ul style="list-style-type: none"> ...
Environmental manager	263204	<ul style="list-style-type: none"> ... 	<ul style="list-style-type: none"> Foundational support included in academic support to assist previously disadvantaged individuals to improve their scientific skills 	<ul style="list-style-type: none"> ... 	<ul style="list-style-type: none"> With marine inclusion
Environmental impact assessor	214301	<ul style="list-style-type: none"> ... 	<ul style="list-style-type: none"> ... 	<ul style="list-style-type: none"> Across all 	<ul style="list-style-type: none"> With marine inclusion
Marine biologist	213301	<ul style="list-style-type: none"> ... 	<ul style="list-style-type: none"> ... 	<ul style="list-style-type: none"> DST/SAIAB Puhlisa programme (NMMU, WSU) requires critical skill add-ons - partnership with GreenMatter Fellowship 	<ul style="list-style-type: none"> With marine inclusion

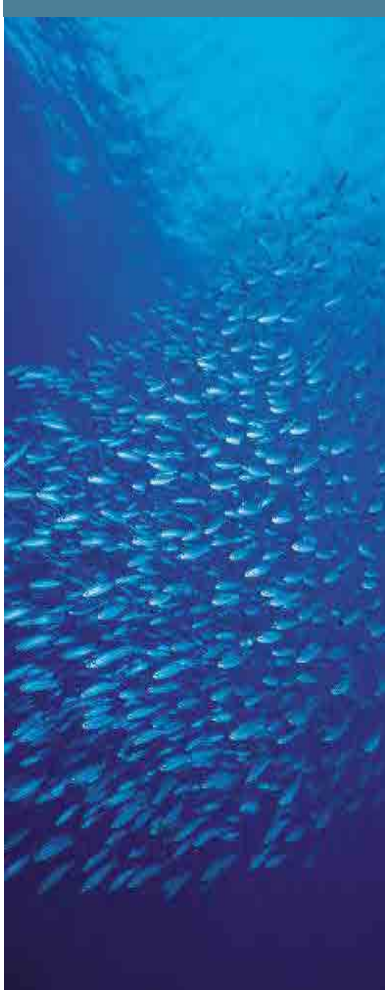
Many of the skills required for marine governance are critical or scarce (3/4)

	Mellisa to please assist with OFOs – no specialisation or tasks differ	What is the higher education gap?	Holistic development	Which HEIs should we be focusing on?	Description of interactions required for multi-transdisciplinarity - postgrad
Environmental engineer (also NB for oil and gas, transport and manufacturing)	214301	▪ ...	▪ ...	▪ UKZN, NMMU, Wits, UP, UCT, UWC	▪ Marine modules to be included in University of Technology and university postgraduate courses to facilitate easier completion of degrees and inter departmental coordination
Rehabilitation engineer	204301	▪ ...	▪ Foundational support included In academic support to assist previously disadvantaged individuals to improve their scientific skills	▪ ...	▪ Marine environmental modules to be included in University of Technology and university postgraduate courses to facilitate easier completion of degrees and inter departmental coordination
Marine monitoring officer	335906	▪ ...	▪ ...	▪ CPUT	▪ Marine modules in current EMI programmes
Marine GIS technician	Not on OFO	▪ ...	▪ ...	▪ CPUT	▪ Marine modules
MSP specialist	Not on OFO	▪ Offshore not available in SA	▪ Foundational support included In academic support to assist previously disadvantaged individuals to improve their scientific skills	▪ NMMU, UCT potential partnership to extend capacity	▪ Limited SA offering. Offshore spatial planning content, capacity, data resources, etc
Oceanographer	211401	▪ CPUT - .N.Dip Advanced diploma , Btech honours. UCT, NMMU	▪ Foundational support included in academic support to assist previously disadvantaged individuals to improve their scientific skills	▪ NMMU postgraduate programme. Fast track CPUT curriculum changes - Dr Joseph Kioko and Conrad Sparks	▪ Postgraduate supervision capacity and extended programme

Many of the skills required for marine governance are critical or scarce (4/4)

	Mellisa to please assist with OFOs – no specialisation or tasks differ	What is the higher education gap?	Holistic development	Which HEIs should we be focusing on?	Description of interactions required for multi-transdisciplinarity - postgrad
Marine geologist/ Geo-Scientist	213301	▪ ...	▪ Foundational support included in academic support to assist previously disadvantaged individuals to improve their scientific skills	▪ UKZN extend research capabilities, capacity and equipment to include offshore - Dr	▪ Capacity, curriculum additions on offshore marine geology. Resources required to extend capacity and research capabilities
Marine atmospheric scientist	211201	▪ ...	...	... Andrew Green	...
Resource geologist (for Secretariat)	211401	▪ ...	▪ Foundational support included in academic support to assist previously disadvantaged individuals to improve their scientific skills	...	▪ Focus on offshore oil and gas. remote sensing, geography and geo-information sciences
Carbon capture and storage (offshore) Climate Change (emerging)	Emerging, not on OFO	▪ UCT	▪ Foundational support included in academic support to assist previously disadvantaged individuals to improve their scientific skills	▪ Potentially UCT – need to check with MA-RE Institute	???
Environmental lawyers (working group 4 DoJ, NPA and DoJ)	261102	▪ Programme underway with DoJ, DEA and NPA on training prosecutors to mainstream instead of creating specialised courts	...	▪ UKZN, UCT	▪ Political science, biodiversity and government needs to be added to available postgraduate courses and options
Environmental compliance officer (offshore, coastal)	335906	▪ Marine inclusion	...	▪ Across all universities	...
Marine environmental manager/ inspector (DAFF, DEA, provinces, etc..) may be captured under EMIs	Not on OFO	▪ ...	...	▪ Fast track CPUT curriculum changes	▪ Marine component to be included

Even after further education, many human resources need training and cross-skilling



- Current capacity requires training and continuous development opportunities
- Undertake an integrated training initiative for DEA, DAFF, provincial and local partner staff/volunteers on monitoring, compliance and enforcement
- Work with DOJ on training in key roles in Justice – prosecutors and environmental lawyers – through the Simulation Court
- Train cross-departmental/programme staff by converting current initiatives into easily accessible practical in-field courses with an experiential component that is facilitated and accessed through a local partner e.g., Ezemvelo, Cape Nature

This training plan will work with the current capacity from DEA, DAFF, Ezemvelo, CapeNature, provincial and local government partners



- 16 Environmental Management Inspectors (EMIs) in the provinces
- 2 EMIs in the national DEA
- 2,946 Working for Coasts participants
- 4 EMIs in Western Cape's Cape Nature



Challenges in enforcement capacity are driven by insufficient resources, lack of ocean legislation to coordinate efforts and differing skill levels



- Insufficient **Fishery Control Officers (FCOs)** in the DAFF and **EMIs** in the DEA result in:
 - Under-coverage of coasts
 - Uncoordinated enforcement and monitoring; provincial EMIs and FCOs do not have the mandate to enforce the ICMA
- No integrated ocean legislation to coordinate enforcement and monitoring activities
- Differing skill levels among EMIs and FCOs
 - EMIs require a university qualification while FCOs do not
 - Job requirements may not be prescriptive enough in terms of required competencies (not just required qualifications)

The proposed solutions focus on training current EMIs and FCOs and new Field Rangers in the Working for Coast programme



- Legislative review to expand mandate of provincial **EMIs** in ICMA
- Develop a **three-week refresher course for EMIs and FCOs on cross-cutting issues**
 - Two weeks of practical work
 - One week in a Simulation Court that engages:
 - Magistrates
 - Advocates
 - Attorneys
 - EMIs/FCOs
- Develop a five-week booster course for Working for the Coast participants to help increase number who obtain permanent employment in the ocean sector after the programme
- This course is capacitated by a train-the-trainer programme and helps participants to become Level 5 Field Rangers

Working for the Coast participants can become EMIs in the DEA...

The DEA, provincial environmental departments and other provincial and municipal organs of the state employ EMIs, a network of environmental enforcement officials from various national, provincial and municipal government departments created by National Environmental Management Act (NEMA) of 2008.

EMI mandate and functions

EMIs must see to it that environmental legislation is followed and enforced and have the power to:

- **Investigate:** Question witnesses, inspect and remove articles, take photographs and audiovisual recordings, take samples and remove waste
- **Inspect:** Enter premises to ascertain whether legislation is being followed and seize evidence of criminal activity
- **Enforce:** Search premises, containers, vessels, vehicles, aircraft and pack animals; seize evidence and contraband; establish road blocks and make arrests.
- **Administrate:** Issue compliance notices and guilt fines

EMIs are not empowered to prosecute cases in court. All cases are handed over to the National Prosecuting Authority (NPA). EMIs work closely with prosecutors countrywide to ensure the successful prosecution of offenders.

... or FCOs in the DAFF with some practical training in the field

The Directorate Compliance draws its mandate from the Marine Living Resources Act (MLRA) 18 of 1998, and its regulations. Its area of responsibility stretches from Port Nolloth on the West Coast to Punto D' Oro on the East Coast; approximately 3200km.

FCO responsibilities

Inspection of local commercial fishing vessels at landing sites

- FCOs are informed of a vessel's intention to sail to and from fishing grounds at all times
- Verify if vessel monitoring system (VMS) is reporting to the Department
- Ensure the correct holders/ representatives are on board the vessel during fishing operations
- At landing point, ensure all fish landed from the vessels is monitored
- Reconcile catches to determine if rights holders' fish quota allocation is exceeded
- Refer serious and repeated offences and over-catching to Section 28 committee per fishing season

Inspection of foreign fishing and fish carrier vessels

- Three different permits are required by foreign vessels involved in fishing activities: EEZ permit with gear; EEZ permit; transshipment permit.
- 24-hour notification by vessel agencies should be sent to FCOs prior to a vessel's arrival in port
- During inspection, verify documents such as original fishing permits from flag states; verify fish species onboard and fishing gear in accordance with their flag state fishing permits
- Ensure that vessels are compliant with applicable Regional Fisheries Management Organisation (RFMO) management measures
- Monitor fish offloading and weigh all fish per species
- Determine if offloaded fish is imported or in transit via SA for another country. If fish is imported, a valid import permit should be available on sight for inspection
- Confiscate undeclared and excess fish according to the issued permit
- Issue fines for minor offences and open and register case dockets for serious and repeated offences
- Refer detected serious offences to RFMOs for recommendation for black-listing as IUU vessel

Reducing by-catch as the percentage of hake long-line

- Check by-catch against total hake landings, particularly kingklip
- Monitor hake long-line catch landings at all times

Rationale for training the Working for Coast participants



- Many are unemployed youth without tertiary or secondary school education
- The two-year programme offers no way to absorb participants into permanent positions in ocean governance
- Of the 2,946 Working for Coast participants, we would produce 60 Field Rangers by the end of the 2015/2016 financial year by reallocating the existing training resources and budget

3000 km of coast
50 km target per Field Ranger = 60 Field Rangers

60 Field Rangers
4 coastal provinces = 15 Field Rangers per coastal province to cover 50 km of coastline each

- 15 Field Rangers can be added to support the four EMIs working in the provinces today, with the potential for further skill transfer on the job

We further recommend that the Secretariat scope and launch a pilot ocean governance bridging and development programme

- A pilot ocean governance bridging and development programme for previously disadvantaged high school learners would address the capability gap between high school and further education
- Youth, particularly previously disadvantaged, are not aware of opportunities and require different platforms of engagement/exposure and support to succeed:
 - Improve career guidance approaches
 - Create experiential opportunities
 - Involve communities and parents
 - Utilise platforms that are easily accessible to rural youth (inclusive approach)
 - Look at a number of national languages
- Experiential bridging into a university programme for, e.g., 50 top high school learners per year: facilitated weekly contact session with experts/role models, leadership activities, career guidance, followed by access to undergraduate bursaries and university support, e.g., fellowship networks/buddy systems, until graduation

All of these efforts take advantage of existing projects and are in line with national priorities

- 
- National Skills Development Strategy (NSDS) 2005-2010 (including the Scarce Skills List 2007)
 - Further Education and Training (FET) Strategic Framework
 - Higher Education (HE) Strategic Framework
 - Immigration Policy
 - HRD Strategy for the Public Sector
 - Industrial Policy Action Plan (IPAP)
 - NDOT's Draft White Paper on South African Maritime Transport Policy
 - National Industrial Policy Framework (NIPF)
 - Emerging Anti-Poverty Strategy
 - Technology and Innovation Strategy
 - Government Programme of Action (covering all cluster priorities)
 - The Medium-term Strategic Framework (MTSF)

The second focus area covers five initiatives

Integrated ocean governance and protection

Integrated Framework and Governance



- 1 Ministerial Committee and Secretariat to Govern Activities
- 2 Enhancement of Legislation into 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 an MPA representative network
- 9 MPA/MSP discovery, research and monitoring programme

Marine Spatial Planning



- 10 MSP Process

It involves ocean protection, encapsulating enforcement, surveillance, pollution monitoring and MPAs

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 an MPA representative network
- 9 MPA/MSP discovery, research and monitoring programme

Why are these initiatives important?

5

Illegal and unregulated activities have significant negative impact on marine resources, infrastructure, trade and food security that results in substantial economic and employment losses.

6

An O&C Information System is an essential tool for MSP. It will serve as a base set of accumulated information and knowledge for the development of the ocean and coast economy. An optimisation and investment programme in earth observation technology will provide wide area coverage, enabling both environmental and compliance monitoring. Earth observation technology is an efficient way to monitor SA's large ocean jurisdiction.

7

South Africa does not have a clear picture of coastal and ocean water quality and therefore cannot determine the location of pollution that is hazardous to human or environmental health. A national water quality monitoring programme will address this issue by identifying areas of accumulation and aggregation of pollution along the coastline as the ocean economy grows.

8

To safeguard biodiversity and the ecosystem services provided by the ocean, and in so doing facilitate sustainable development of ocean economic opportunities.

9

To unlock the "blue economy" sustainably and avoid unnecessary conflict between sectors the required discovery, research and monitoring (DRuM) will need to be carried out on SA's marine domain. DRuM will produce the data required to enable effective MSP and establish a representative MPA network.

The Lab has come up with five ocean protection solutions divided between integrated enforcement and MPAs

Ocean Protection Objective 1 – Integrated enforcement



- 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
-

Ocean Protection Objective 2 – MPAs



- 8 Creation of an MPA representative network
- 9 MPA/MSP spatial planning discovery, research and monitoring programme

5: Enhanced and coordinated enforcement programme

Case for change:

Illegal and unregulated activities have significant negative impact on marine resources, infrastructure, trade and food security that results in substantial economic and employment losses.

Initiative Details:

Establish an Interim Committee for an enhanced and coordinated enforcement programme in the western and southern regions

- Coordinate an enforcement pilot project in the above regions
- Optimise existing enforcement capacity by expanding each player's mandate and coordinating responses
- *Timeframe: November 2014 - April 2015*

Establish a compliance, monitoring and enforcement TWG that will monitor compliance and enforcement in the ocean space as part of the broader governance structure

- *Timeframe: 1 May 2015 onwards*

Undertake a collaborative study to assess the gaps in compliance, and enforcement in current capabilities

- TWG to monitor and evaluate the coordinated enforcement pilot project
- TWG to undertake a collaborative study to assess current enforcement and compliance monitoring capabilities
- *Timeframe: 31 August – 30 November 2015*

Develop a work plan and coordinate optimisation of inter-departmental compliance and enforcement

- *Timeframe: 16 January – 20 March 2016 (Development); 21 March 2016 onwards (implementation)*

Complete pilot project by May 2015 followed by launch of a coordinated work plan from Mar 2016

Implementing agency: DAFF

Key stakeholders identified

Committee: DAFF (Fisheries), DEA (EMIs; Oceans and Coasts), DOJ (Programme Planning and Support Services), SANDF, SAPS (Water wing, Hawks and Crime Intelligence), DST, DMR (Mineral Regulation), DoE (Petroleum and Pet. Products Regulations), DoT, SARS, DHA, DIRCO, TNPA and Coastal Provinces (3 in pilot projects and 4 in permanent)

Other: National Treasury, Local Government, SSA, KZN Ezemvelo Wildlife, CapeNature, ECPTA, Traditional Leaders, SAMSA and EPWP

Required resources

ZAR12.66 mn (new + existing), projected DAFF budget over five years

Implementation timeframe

As per Activities

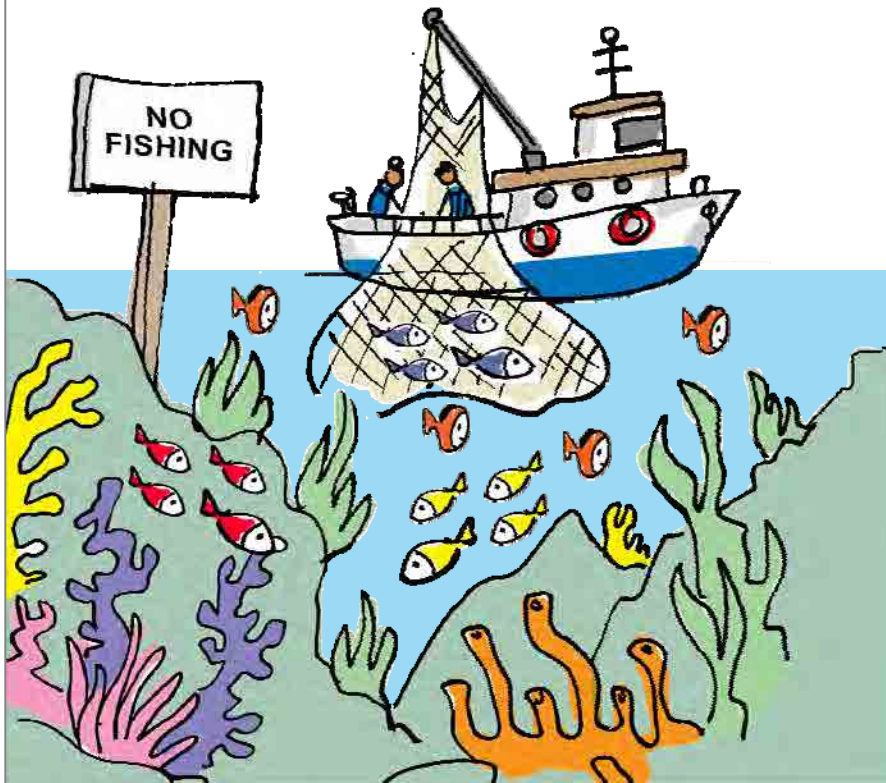
Key milestones

- 7 Oct 2014 – Statement of Intent to collaborate on coordinated enforcement pilot project signed
- 8 Nov 2014 – Coordinated enforcement pilot project to begin
- 30 April 2015 – Signing of the formal MoU for establishment of TWG
- 1 May 2015 – Formal compliance, monitoring and enforcement TWG in place
- 7 May 2015 – Completion of exit report by interim structure
- 31 May 2015 – Review of exit report of pilot completed by TWG
- 30 Nov 2015 – Study by TWG to be completed.
- 21 Mar 2016 – Commencement of work plan by TWG

Illegal activities at sea can be reduced through a coordinated enforcement initiative that optimises existing resources from all relevant stakeholders

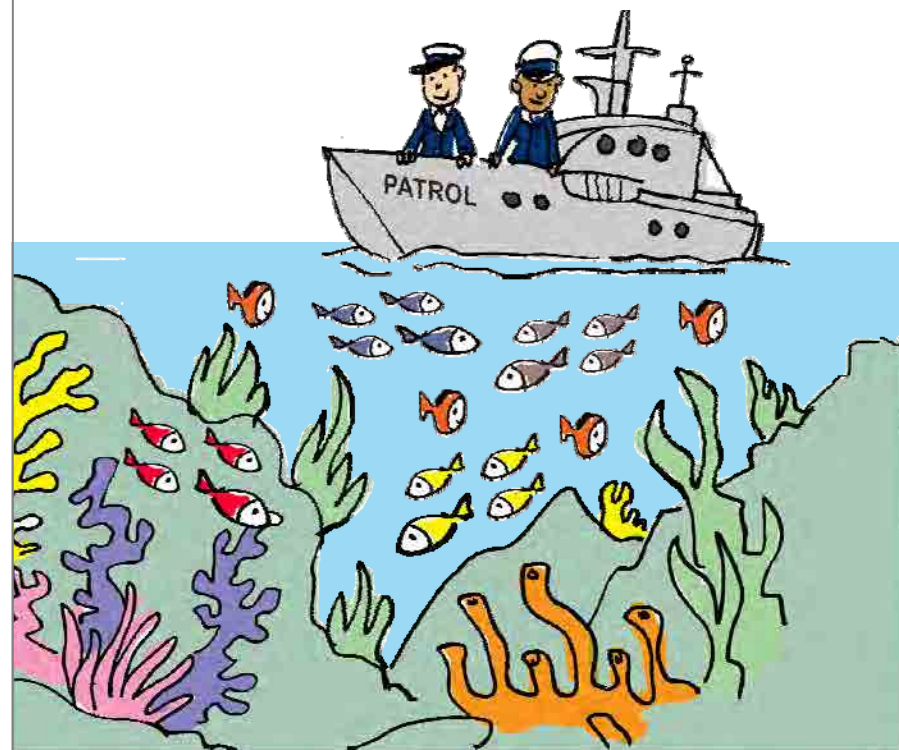
Before

Limited coverage by enforcement agencies due to uncoordinated schedules and functions



After

A coordinated enforcement programme reduces illegal ocean activities by optimising existing resources when monitoring ocean activities



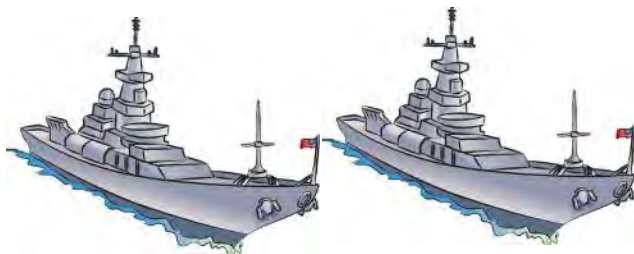
INITIATIVES

The enforcement initiative will optimise assets from relevant departments, agencies and provinces, and leverage the Security Cluster Programme for assessments

NOT EXHAUSTIVE



Collaborated and shared assets



Vessels



Human Resources



Technologies

This will support the existing Security Cluster Programme so that security assessments and management plans can be developed

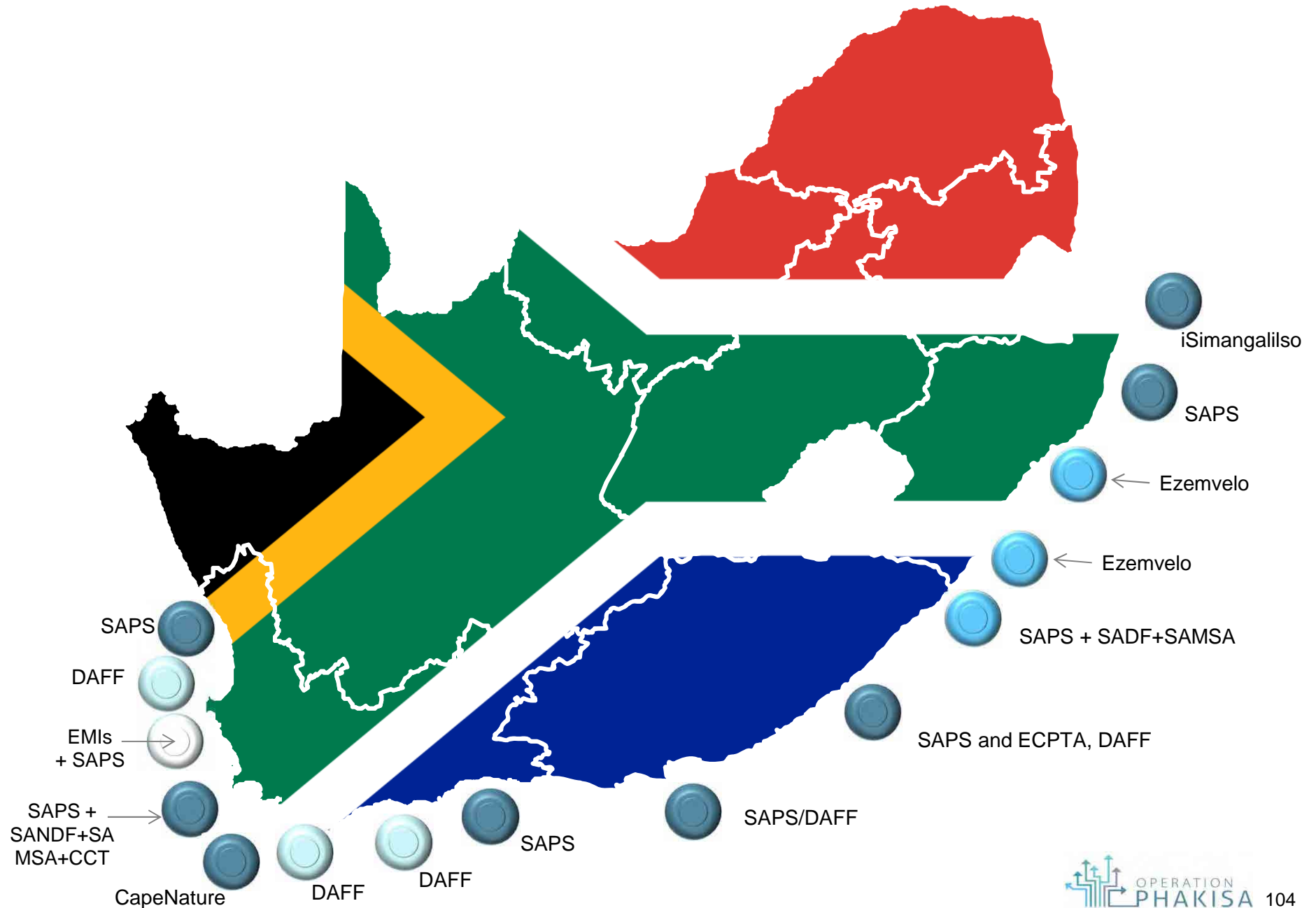
National role players in the enforcement space and their human and vessel capacity

Org/ Department	Programme	Capacity (human/vessel)	Area of coverage	What is enforced?	Notes
DEA	<ul style="list-style-type: none"> SANAP Research, Oceans and Coasts Compliance 	<ul style="list-style-type: none"> 4-/Agulhas 1 16/Algoa 2/ 	<ul style="list-style-type: none"> SA ocean/ Antarctica EEZ Coasts and ocean 	<ul style="list-style-type: none"> Compliance Monitoring of emergency incidents and marine pollution 	<ul style="list-style-type: none"> Research support Relevant authority, environmental support and protection
DAFF	<ul style="list-style-type: none"> MCS Research 	<ul style="list-style-type: none"> 34/4(IPV) 6 (R/D) 120 { 2 Research Vessels 	<ul style="list-style-type: none"> SA coast and EEZ 	<ul style="list-style-type: none"> Fisheries ITOMLRA 	<ul style="list-style-type: none"> 254 FCOs 120 Research Personnel
SANDF	<ul style="list-style-type: none"> Security/Defence 	<ul style="list-style-type: none"> IPV/OPV/Sub-marines/Survey and Aircraft Helicopters 	<ul style="list-style-type: none"> SA coast + EEZ + beyond border 	<ul style="list-style-type: none"> Defence Security Anti-piracy 	<ul style="list-style-type: none"> Assist government departments when requested
SAPS	<ul style="list-style-type: none"> Law enforcement 	<ul style="list-style-type: none"> 180/15 R/Ds 	<ul style="list-style-type: none"> SA coast up to 24nm 	<ul style="list-style-type: none"> Anti-crime 	<ul style="list-style-type: none"> ...
SAMSA	<ul style="list-style-type: none"> Cadetship 	<ul style="list-style-type: none"> SA Agulhas (outsourced) OPS + MGT + ICT Project Manager for Oil Pollution Responses (Smit Amandla) 	<ul style="list-style-type: none"> SA maritime environment 	<ul style="list-style-type: none"> Safety and security Marine environment protection 	<ul style="list-style-type: none"> Sea watch and rescue; Own cadetship programme;
SARS agencies of provinces	<ul style="list-style-type: none"> ... 	<ul style="list-style-type: none"> 1 – ski boat - Cape Town 1 – ski boat - Durban 	<ul style="list-style-type: none"> SA maritime environment 	<ul style="list-style-type: none"> SARS compliance 	<ul style="list-style-type: none"> 1 ski boat – Cape Town 1 ski boat - Durban
DOT	<ul style="list-style-type: none"> Marine Environment Protection 	<ul style="list-style-type: none"> 1 Project leader and 2 Managers 	<ul style="list-style-type: none"> SA Coast EEZ 	<ul style="list-style-type: none"> Marine Court of Enquiries Accident and incident investigations 	<ul style="list-style-type: none"> Outsource towing and surveys

State and local role players in the enforcement space and their human and vessel capacity

Org/ department	Programme	Capacity (Human/Vessel)	Area of coverage	What is enforced?	Notes
Isimangaliso Wetland Park Authority	■ Anti-poaching	■ 31/3 R/D	■ MPA	■ NEMA + MLRF and Seals and Sea Birds Act	■ Rangers and EMIs
Ezemvelo KZN Wild Life	■ Anti-poaching	■ 186/0	■ KZN coastline	■ Anti-poaching	■ FCOs
Eastern Cape Park and Tourism Agency	■ Anti-poaching	■ 23/3 R/D	■ 4 MPAs	■ Anti-poaching	■ Rangers
Western Cape Nature Conservation BD	■ Anti-poaching	■ 16/4 R/D	■ 9 MPAs	■ Anti-poaching	■ Rangers
SANPARKS	■ Anti-poaching	■ 56/16 R/D	■ 7 MPAs and islands	■ Anti-poaching	■ FCOs/EMIs
Nelson Mandela	■ Anti-poaching	■ 5/0	■ Coastal	■ Anti-poaching	■ Rangers
City of Cape Town	■ Anti-poaching Dist. Management	■ 10 ppl/1 RD, 2 jet skis	■ Coastal	■ MLRA, incl. Coastal Management Act	■ "Marine unit"

National, state and local role players' coverage of the SA coast and EEZ



To execute a coordinated enforcement programme effectively specific obstacles must be addressed

Obstacles

Lack of capacity/skill

- Inspectors-FCOs
- Technical surveyors
- Seafarers
- Lack of legal support
- Prosecutors unfamiliar with maritime contraventions
- Naval architecture
- Investigations
- Surveillance skills/tech

Lack of resources

- OPVs
- Infrastructure:
 - Launch sites
 - Surveillance equipment
 - Maritime fund
 - Funds – CAP and operations

Lack of collaboration

- Information and resource sharing
- Silo mentality in depts
- Regional and international

Possible solutions

- Establish maritime skills fund:
 - Awareness
 - Maritime Curriculum
 - Sea-time training
- Establish maritime courts:
 - Re-open environmental courts
- Revisit maritime skills study
- Capacity for legal support:
 - Train prosecutors in MLRA transgressions

- Adjust levies and overall fees
- Charge Maritime Protection Levy
- Audit existing surveillance equipment/resources:
 - Identify shortfall and seek funding
- Re-prioritise needs/MTSF

- Establish enforcement cluster with legal clout:
 - Maritime information hub
 - Establish registered coordination centre
 - Border management agency

Based on our analysis, the solutions to coordinated and effective enforcement fall into three main categories:

1 Optimise and coordinate enforcement

- Optimise current capacity to carry out joint enforcement functions in the ocean space



2 Capacity and resources

- Use new/advanced technologies for monitoring and surveillance

3 Enablers

- Reduce dependency by encouraging alternative livelihoods
- International and regional cooperation to eliminate trans-border maritime crimes, international treaty
- Re-establish environmental courts for the ocean (including fishing)
- Stakeholder awareness
- Legal reform

The team proposes a two-step initiative: 1) Implement a coordinated enforcement pilot project that would inform the work plans of 2) a permanent TWG on compliance enforcement and monitoring within the Oceans IMC

1) Implement a coordinated enforcement pilot project

Model: Cowrie House – Border Management Control Committee

Goal: To test a coordinated enforcement model to inform the work of the formal TWG on compliance monitoring and enforcement within the Oceans IMC

Time: Aug 2014 –
May 2015

Pilot

- Location: EEZ + offshore – western and southern regions
- Functions:
 - Customs/excise
 - Defence/anti-piracy
 - Checking permits/IUU fishing
 - MPA patrols
 - Pollution by vessels
 - Illegal dumping
 - Monitor trafficking/illegal immigration/slave trade/drugs
 - Ballast water/invasive species

Previous MOU: DEA-DAFF

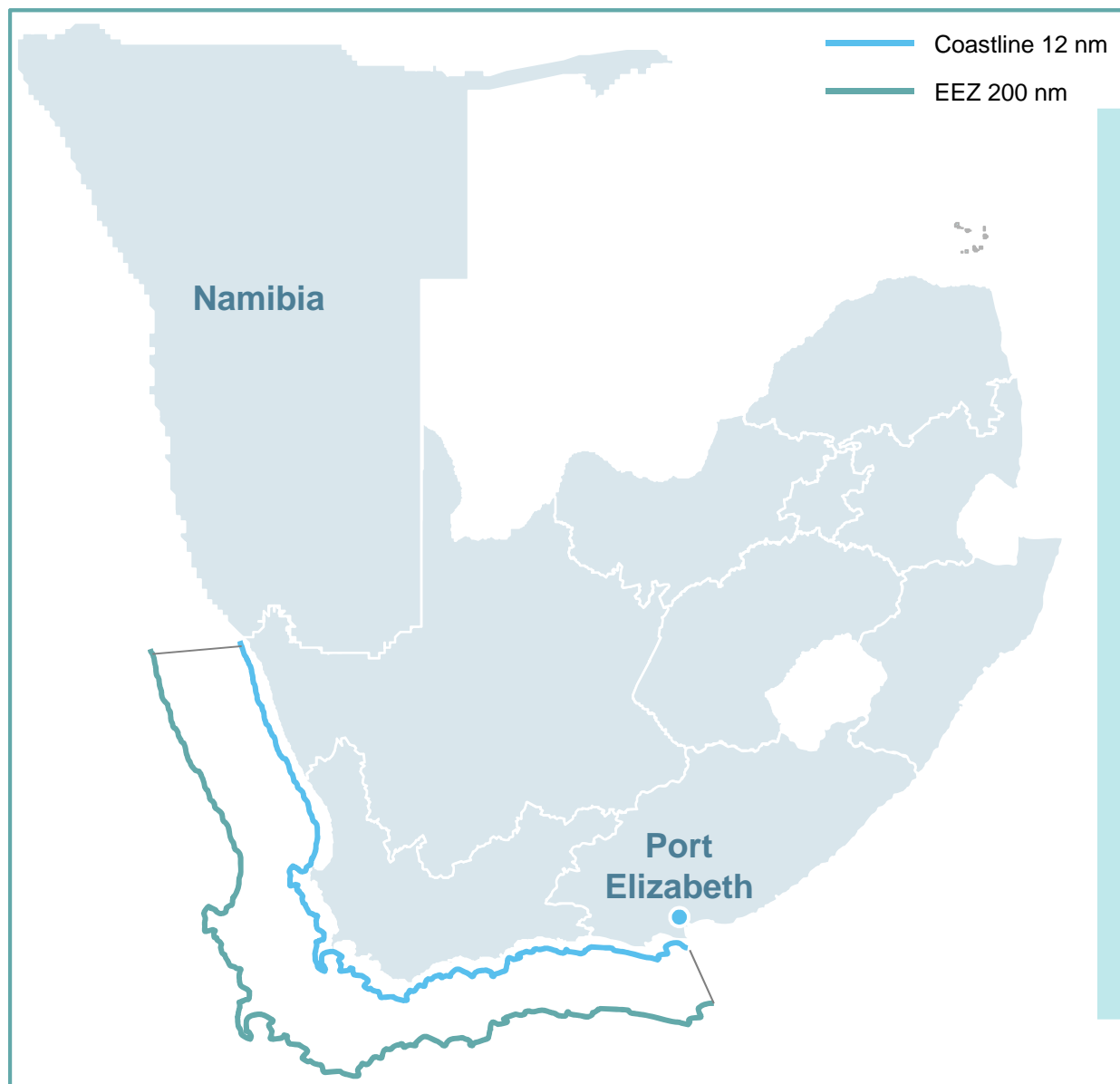
Non-consumptive activities (boat-based whale watching, shark cage-diving, scuba diving, film operators)

Activities based on seals, sea birds islands, breeding colonies

- Role players:
- DAFF, SAPS, DHA, SANDF, DEA, SAMSA, TNPA , DTI, DoT, DIRCO, DST, DoJ, SSA , SARS, Coastal Provinces, SANParks, Cape Nature, ECPTA , EPWP
- How?
 - SOPs for inspections or surveys
 - MOUs to defines roles and implementation for permanent structure
 - System for sharing of information
 - System for tracking incidents
 - Evaluation to make case for continuation
 - Programme to brief officers and implementation staff



Pilot map: Western and southern regions (up to 200 NM)



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

Resources available for pilot project from key players

Dept	Human capacity available and operational/FCOs	Boats available and operational	IT system used	Main processes followed and related SOP
SAMSA	<ul style="list-style-type: none"> Ship surveyors- class one (1) – Radio surveyors MRCC duty controllers Naval architecture =49 	<ul style="list-style-type: none"> No vessels 	<ul style="list-style-type: none"> The Automatic Identification System (AIS) is an automatic tracking system used on ships and by vessel traffic services (VTS) for identifying and locating vessels by electronically exchanging data with other nearby ships, AIS base stations, and satellites. The Long-Range Identification and Tracking (LRIT) system provides for the global identification and tracking of ships 	<ul style="list-style-type: none"> IMO Survey Standards SCTW MARPOL survey Radio Survey Port State Control Inspection Flag State
DOT	<ul style="list-style-type: none"> 3 officials 	<ul style="list-style-type: none"> 1 outsourced towing and salvage tug vessel 	<ul style="list-style-type: none"> At SAMSA 	<ul style="list-style-type: none"> Provides the towing and salvage tug that is managed by SAMSA during incidents Leadership of the Tug Response Ensuring the existence of the National Contingency Plan for prevention and response for mobilisation during tier 2and3 incidents
DEA	<ul style="list-style-type: none"> DEA: 4 officials Agencies funded by DEA: NMM -2 Rangers CoCT – 1 Ranger CapeNature – 16 Rangers SANPARKS – 47 Rangers 	<ul style="list-style-type: none"> DEA: 1 vessels Agencies CapeNature – 4 vessels SANPARKS – 18 vessels 	<ul style="list-style-type: none"> National Compliance and Enforcement Information System- NCEIS: Processes reported incidents and complaints, monitor response time. National Environmental Authorisation System – NEAS: Collects information on authorisations; Waste Information System – WIS: collects information on waste 	<ul style="list-style-type: none"> Compliance notices: <ul style="list-style-type: none"> Coastal protection Repair and removal Coastal access Visible patrols Response to incidents Surveillance
DAFF (monitoring, control and surveillance)	<ul style="list-style-type: none"> FCOs = 209 	<ul style="list-style-type: none"> Sara Baartman Lillian Ngoyi Ruth First Victoria Mxenge 6 Rubber Ducks 	<ul style="list-style-type: none"> Vessel Monitoring System GlobalVista: Satellite Base System MAST: Marine Administration System 	<ul style="list-style-type: none"> MLRA and SOP
DAFF (research and development)	<ul style="list-style-type: none"> Researchers and Scientists =120 	<ul style="list-style-type: none"> Algoa Hellen Kuzwayo 		<ul style="list-style-type: none"> MLRA
DOD (call to assist)		<ul style="list-style-type: none"> IPV/OPV, survey, submarine and aircraft/helicopters 	<ul style="list-style-type: none"> Various VMS 	<ul style="list-style-type: none"> SADCORDS,SANDFORDS/NAVORDS, IMO, SOLAS

2) Establish the TWG for compliance monitoring and enforcement within the Ocean IMC structure

Model: Ocean IMC Structure

Goal: To optimise environmental enforcement in emerging maritime sectors

Time:
May 2015 onwards

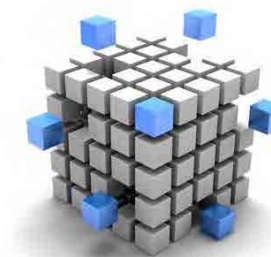
Overall strategy	System function	Areas of focus	Vehicle	Agencies/lead	Time frame
<ul style="list-style-type: none"> Implementation Logistical Planning 	<ul style="list-style-type: none"> Compliance monitoring Enforcement 	<ul style="list-style-type: none"> Environment Fishing Safety Border security Mining Pollution 	<ul style="list-style-type: none"> TWG within Oceans IMC 	<ul style="list-style-type: none"> DAFF DEA DST SARS SANDF DHA SAPS DOT DOE DMR DOJ DIRCO Coastal Provinces 	<ul style="list-style-type: none"> 1 May 2015: TWG for compliance, monitoring and enforcement in place 30 Nov 2015: Study by TWG to be completed. 21 Mar 2016 : Commencement of work plan by TWG
<ul style="list-style-type: none"> Coordination Optimisation 	<ul style="list-style-type: none"> Link to data from technological surveillance 				

TORS

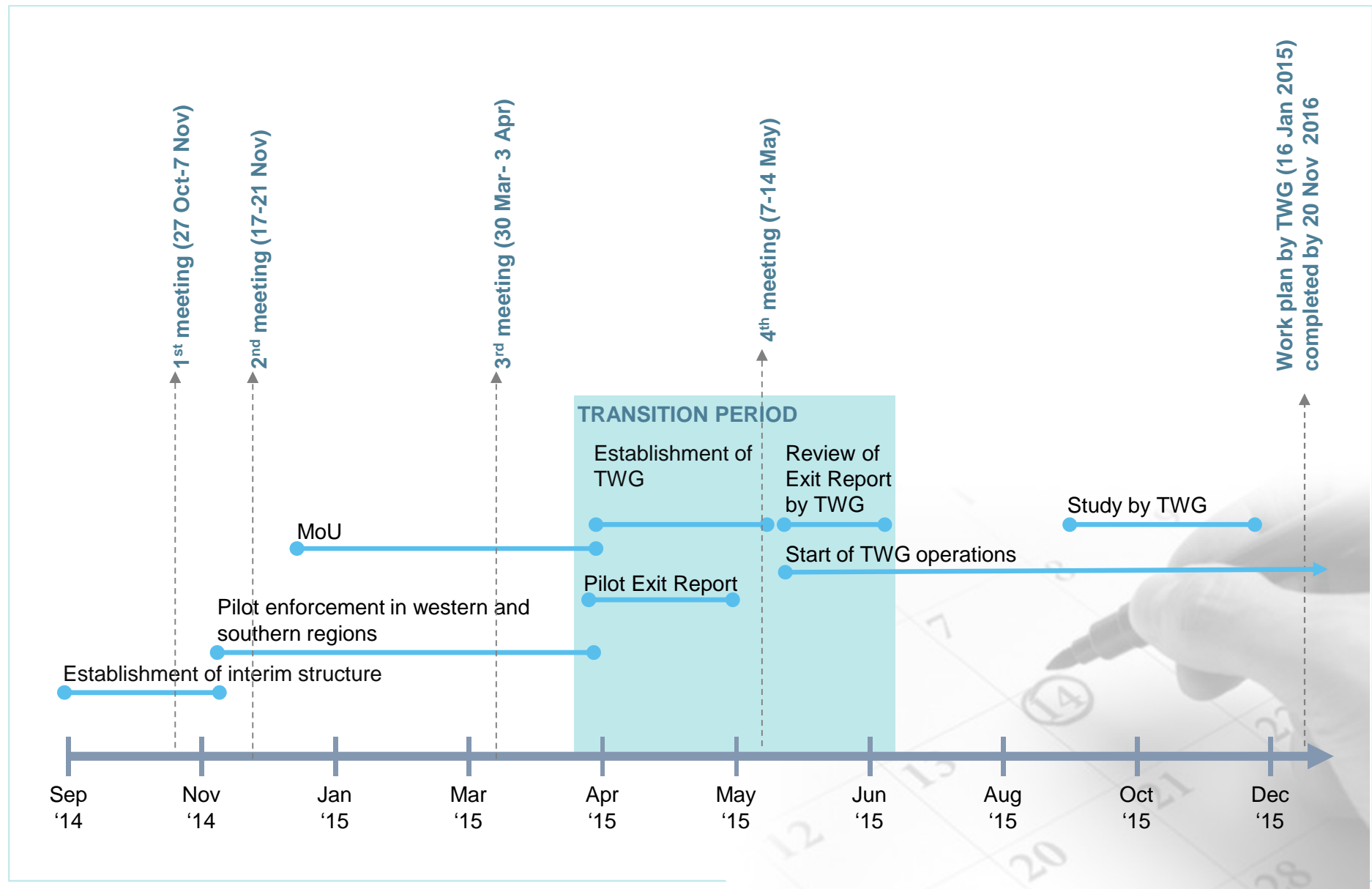
Identify, coordinate and guide cross-cutting monitoring control and surveillance to ensure that duplication minimised
 Align SA's monitoring control and surveillance with best international practices
 Coordinate ocean-based monitoring control and surveillance with neighbouring coastal countries as and when required
 Ensure SA complies with international obligations
 Assist line function departments with alignment of cross-cutting enforcement matters
 Liaise with the Inter-agency Clearing Forum
 Identify the strategic cross-cutting surveillance that is required in SA
 Coordinate inter -departmental surveillance to minimise costs and avoid overlaps
 Ensure the surveillance objectives of the country are met

Features of the interim structure and the TWG

	Interim structure	TWG
Mandate	TOR – Interim Structure	TOR – TWG
Establishment	Via statement of intent to collaborate	Via Oceans IMC; MoU (pilot phase)
Timeline	Aug 2014 – May 2015	May 2015 onwards
Role players	DAFF (Lead); full committee without KZN	DAFF (Lead); full Committee with all provinces
Main roles	<ul style="list-style-type: none"> ▪ Pilot project ▪ MoU for TWG 	<ul style="list-style-type: none"> ▪ Review pilot ▪ Conduct study ▪ Design and implement work plan
Lab products to support implementation	<ul style="list-style-type: none"> ▪ SOP for coordinated enforcement ▪ Exit report ▪ Project brief ▪ Statement of intent to collaborate ▪ TOR – Interim structure ▪ MoU 	<ul style="list-style-type: none"> ▪ TOR – TWG



Implementation timeline



Key products of the Lab

Lab enforcement products

- Two (2) Terms of Reference
 - Interim Committee
 - Technical Reference Group on Compliance Monitoring and Enforcement
- Statement of intent to collaborate
- SOP for the pilot project – consulted with all key stakeholders
- Project brief template
- Exit report template, including indicators and basic M&E framework
- Draft MoU



6: Building a national ocean and coast information system and extending ocean and coastal earth observation capacity for enhanced monitoring and early warning systems

Case for change:

An O&C Information System is an essential tool for MSP. It will serve as a base set of accumulated information and knowledge for the development of the ocean and coast economy. An optimisation and investment programme in earth observation technology will provide wide area coverage, enabling both environmental and compliance monitoring. Earth observation technology is an efficient way to monitor SA's large ocean jurisdiction.

Initiative Details:

- Strategic Direction to be provided by OG Secretariat
- Establish earth observation data collection: coast, EEZ, extended continental shelf and beyond
- Develop analysis/intelligence knowledge products: pollution (water quality), maritime activities, dark targets, illegal fishing; extend current permitted fishing to general vessel monitoring in targeted areas (known areas) and new MPAs, change in vegetation, ecosystem quality, HABs, oil pollution, etc.
- Establish an early warning/alert system based on knowledge products and alert necessary departments and stakeholders
- Develop an oceans and coast information management system that can collate, archive, and process data and disseminate knowledge products for governance; report on marine and maritime monitoring (that can include dissemination of alerts and/or early warnings to enforcement, disaster management agencies and key stakeholders)

Note: Capacity building areas here include information systems, information management and aspects of remote sensing data processing and analyses that may be identified.

Earth observation or remote sensing coverage of the coast and EEZ in five years and an oceans and coast information management system to archive and share data and knowledge products with stakeholders

Implementing agency: DEA – Ocean Governance Secretariat (owner); DST (developer), SITA

Key stakeholders identified

SANSA; DAFF; DOT; DMR; DOE; DPE, Provinces, Local Authorities, DPW; DRD and Land Affairs (Surveys and Mapping), Provinces

Required resources

Remote sensing technologies; IT and computing infrastructure; IT human capacity. ZAR 380 mn over the four years.

Implementation timeframe

- Information systems and surveillance technology
- Surveillance technology to be built incrementally from 2014 - 2020, and thereafter maintenance plan for technologies and information system.
- Developing contracting arrangements between SITA, DST and DEA, Budgeting, design, development programme – December 2014

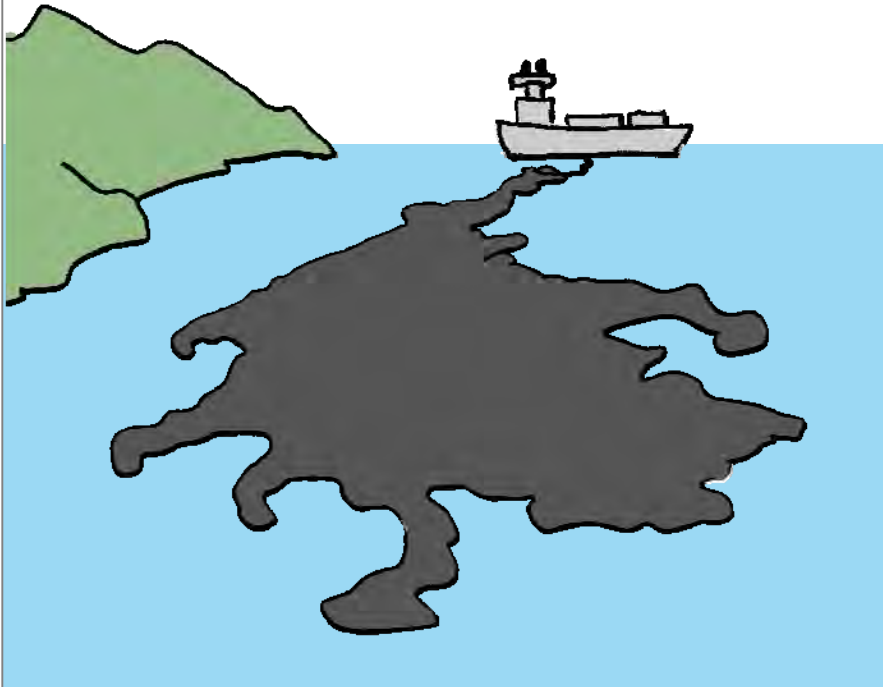
Key milestones

2016: Information system architecture built; knowledge products for sectors defined.
2017: Knowledge products developed for two sectors, e.g., oil spill detection.

The information centre and earth observation initiative will collate all the best available information and leverage existing technological investments to monitor ocean activities effectively

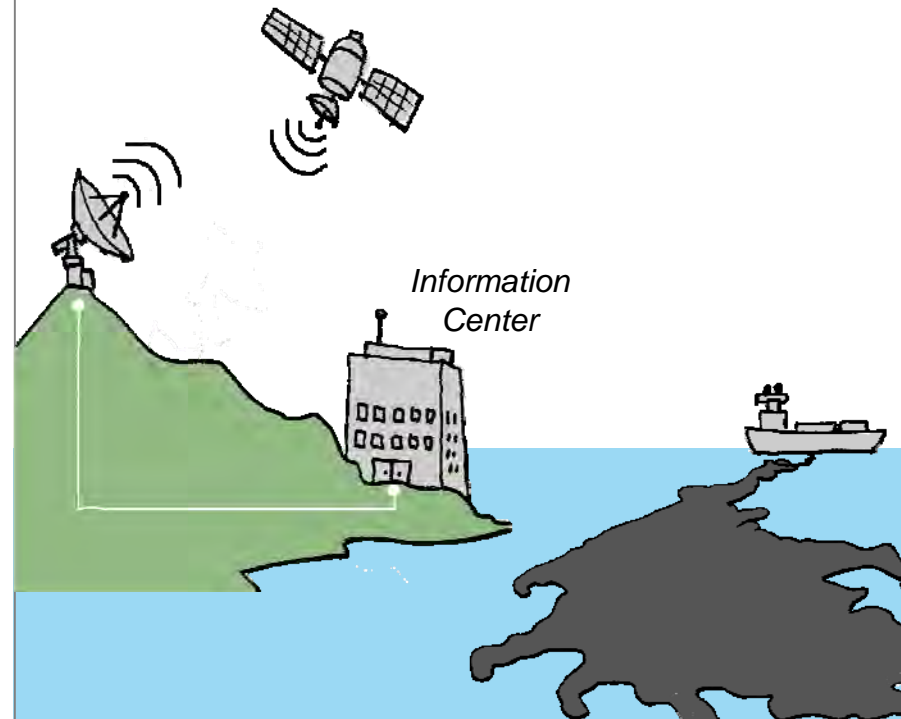
Before

Oil spills and discharge of harmful materials may be detected late and cause significant damage to the ocean ecosystems

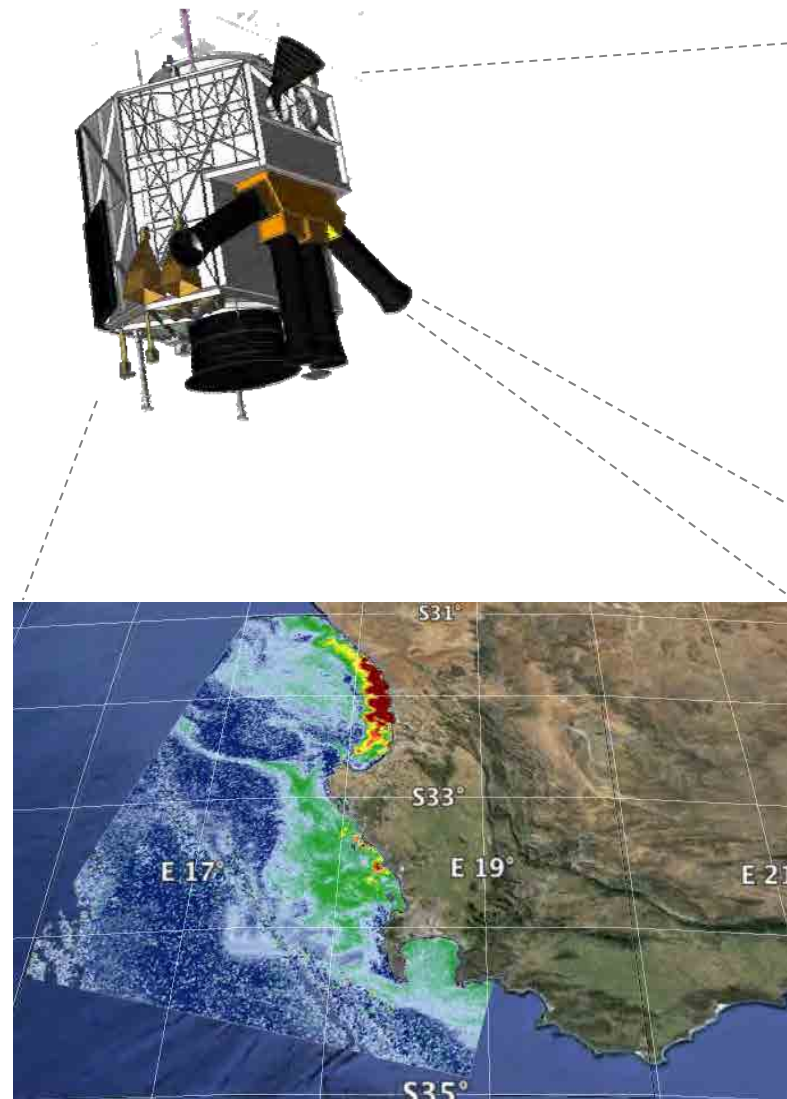


After

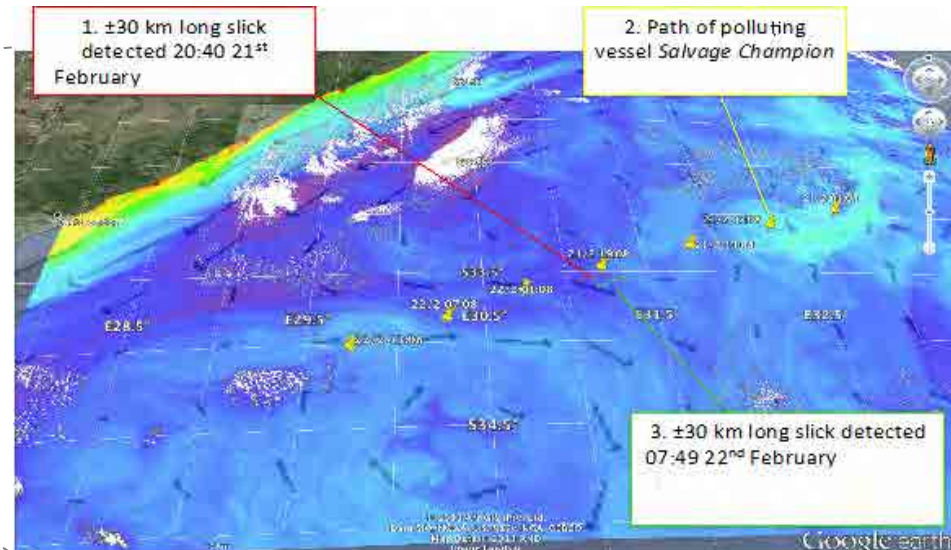
Leveraging existing technologies by SANSA, CSIR and SAMSA as part of the **information system and earth observation** initiative will enable a more informed response to incidents



A quick win in the coastal surveillance initiatives will be to leverage existing technologies owned by CSIR, SANSA and SAMSA



Detection of harmful algae bloom that may affect human health

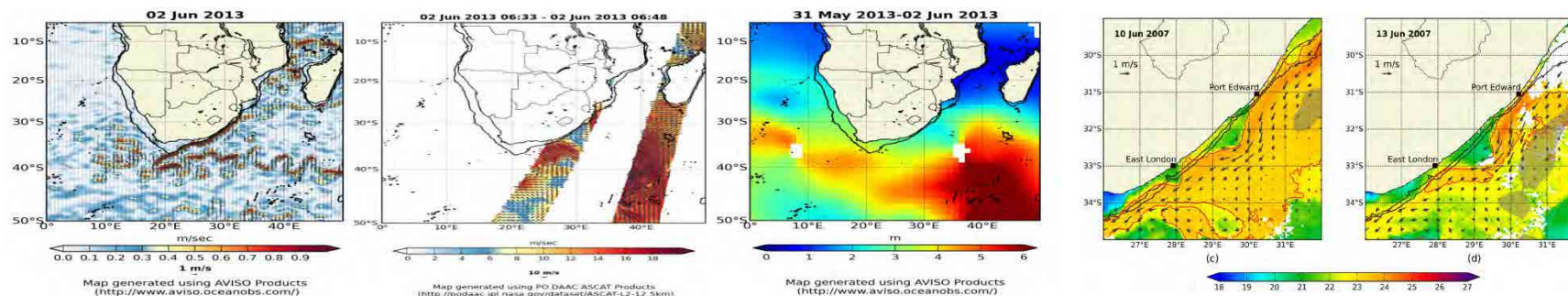


Oil slick detection and monitoring

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

Effective monitoring could save expensive deployments if the situation does not require them.

An ocean and coastal information system (OCIS) and earth observation will enable MSP and the evaluation of cross-sectorial information



- An OCIS will allow sector information to be looked at together, thereby assisting both sector planning MSP across sectors.
- The information system will also enable easy archiving and interrogation of the large data sets produced by earth observation technologies, such as satellite or ocean buoys .
- The production of MSPs requires sets of data and information that are accepted by all sectors as the basis for identifying overlapping areas and solutions.
- Investment in earth observation infrastructure and human capacity will enable enhanced environmental monitoring and marine activity surveillance.



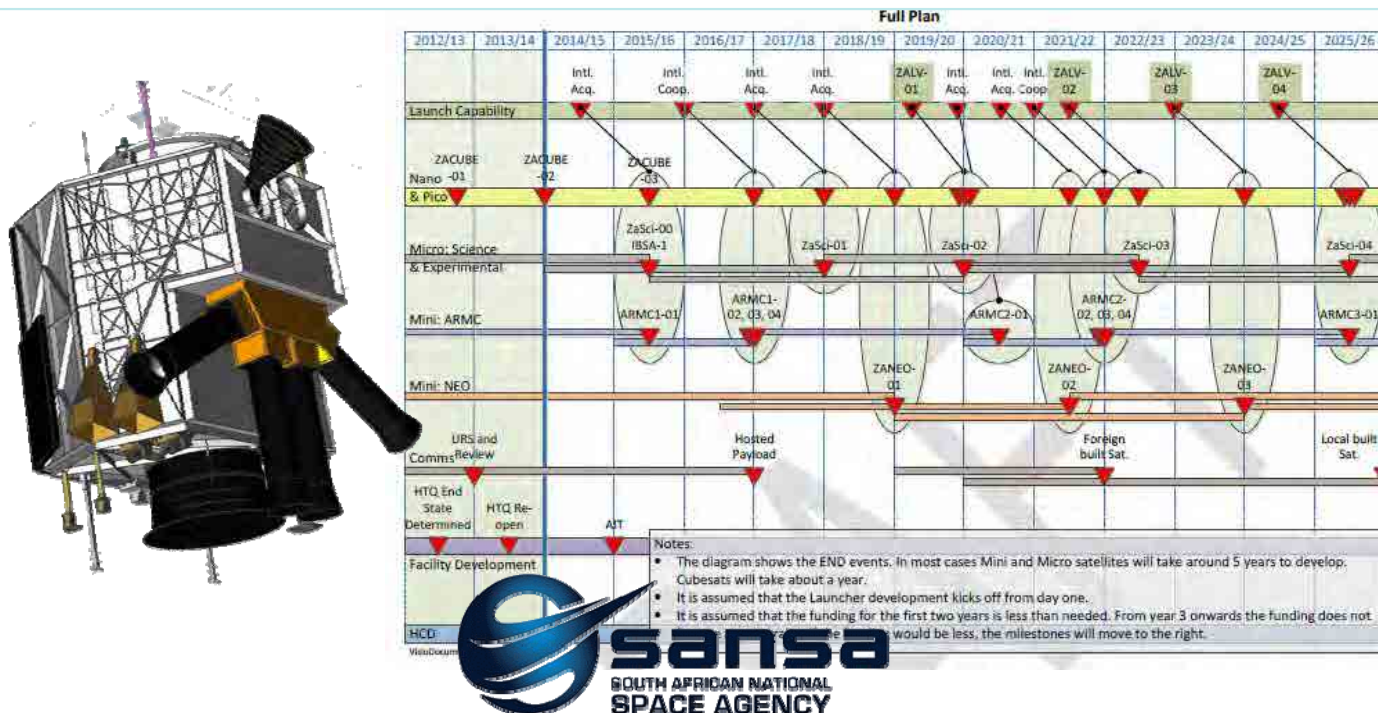
INITIATIVES

This initiative will require cooperation with the DST; it will aim to develop the necessary enablers and leverage existing technology platforms

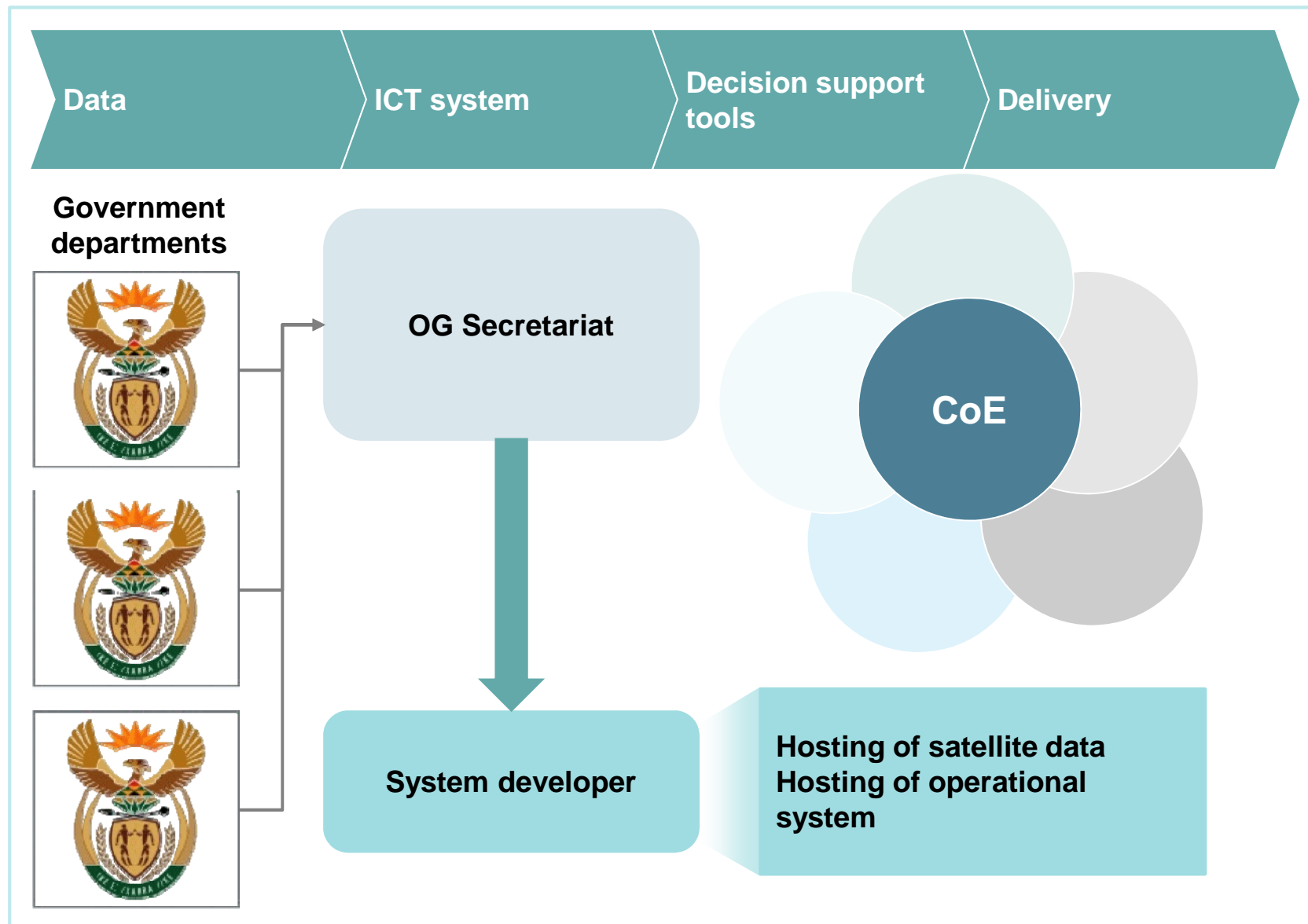
The solution requires the DST to respond to the information and knowledge products that are required for development of marine spatial management plans in two performance areas:

- Development of the OCIS that will archive and facilitate the efficient interrogation of large data sets
- Development of the earth observation human capacity and technologies that will enhance SA's ability to monitor its coast, ocean EEZ and extended continental shelf claim.

Additional opportunities must be identified to leverage SANSA's existing satellite programme to develop marine applications.



Operational model to develop and host the OCIS, including earth observation data



Example of cost benefit analysis – Maritime domain awareness

Sector	Annual value	EO value add	EO value add (%)	Annual return	Decadal
SA Navy	<ul style="list-style-type: none"> Operational budget of ±US\$308mn or ±ZAR 3bn¹⁴ 	<ul style="list-style-type: none"> Vessel detection and reaction, MREA ability, MDA for risk management 	<ul style="list-style-type: none"> 6.7%^{a/1} 	ZAR 200mn	<ul style="list-style-type: none"> ZAR 2bn
SA Merchant Navy	<ul style="list-style-type: none"> ZAR 5bn^{a/2} 	<ul style="list-style-type: none"> Vessel routing and risk minimisation 	<ul style="list-style-type: none"> 2%^{a/3} 	ZAR 100mn	<ul style="list-style-type: none"> ZAR 1bn
SAMSA mandate: safety at sea	<ul style="list-style-type: none"> SAMSA budget ±ZAR300mn, capital and life value not calculated 	<ul style="list-style-type: none"> Avoidance of vessel casualty, search and rescue 	<ul style="list-style-type: none"> N/a 	ZAR 800mn ^{a/4}	<ul style="list-style-type: none"> ZAR 8bn

Example of cost benefit analysis – Fisheries and aquaculture

Sector	Annual value	EO value add	EO value add (%)	Annual return	Decadal
Illegal fishing	▪ ZAR 1bn _{bn/1}	▪ Monitoring, compliance, increased vessel effectiveness	▪ 12% ²³	ZAR 120mn	▪ ZAR 1.2bn
Potential fishing zones	▪ ZAR 2.7bn _{bn/2}	▪ 300% CPUE increase, compliance, move to eco management	▪ 6.7% _{bn/3}	ZAR 181mn	▪ ZAR 1.8bn
Aqua-culture	▪ ZAR 379mn – 850mn (project 2020)	▪ Farm siting, operations, HAB risk	▪ 2 - 4%	ZAR 17 – 34mn	▪ ZAR 250mn

Example of cost benefit analysis – Environmental management and forecasting

Sector	Annual value	EO value add	EO value add (%)	Annual return	Decadal
Seasonal/ long-range fore- casting	▪ ZAR 10bn 24	▪ Multi-sector: increased forecast skill	▪ 1% c/2	ZAR 100mn	▪ ZAR 1bn
Coastal vulner- ability and extreme event risk	▪ ZAR 76bn c/1	▪ Increased habitat/land mapping, forecast skill and risk mapping	▪ 1% c/2	ZAR 760mn	▪ ZAR 7.6bn

Example of cost benefit analysis – Earth observation and sensing data

OCIS: Approximate costs

	Required	Current	Delta
▪ Data: SAR + AIS and high-resolution optical	▪ ZAR 14-18 mn/annum	▪ ZAR 500K/annum – 2 years	▪ ZAR 12-14mn
▪ Operational IT systems	▪ ZAR 5-6 mn/annum	▪ 0	▪ ZAR 5-6mn/annum
▪ R&D	▪ ZAR 15-20mn /annum	▪ ZAR 5-6mn/annum	▪ ZAR 10-15mn/annum
▪ Total costs	▪ ZAR 34-44mn/annum	▪ ZAR 7mn	▪ ZAR 35mn/annum

Estimated annual cost:

ZAR 39mn

Estimated annual value

ZAR 2.3bn

Estimated benefit cost

ZAR 58.9mn

7: National ocean and coastal (including pollution) monitoring programme (NOCMP)

Case for change:

South Africa does not have a clear picture of coastal and ocean water quality and therefore cannot determine the location of pollution that is hazardous to human or environmental health. A national water quality monitoring programme will address this issue by identifying areas of accumulation and aggregation of pollution along the coastline as the ocean economy grows.

Initiative Details:

- Develop and Implement a national ocean and coastal monitoring programme (NOCMP).
- Use DEA environmental programmes to increase human capacity to monitor coastal ecosystems and undertake high-level initial pollution screening and collect samples for fuller pollution chemical and biological analysis (this could be supplemented by voluntary coastal officers as provided for by the Integrated Coastal Management Act).
- Establish a national pollution laboratory that can process the samples collected from the NOCMP teams (possibly at a coastal university or the DEA).
- Develop and implement a mechanism to develop ocean and coastal standards for collecting, analysing and reporting water quality data (government, provinces and cities) and state owned-agencies (e.g., ports) and conduct awareness training sessions at schools through EPIP programmes.
- Develop and Implement Industry norms and standards to monitor and report on water quality and pollution (industry-specific end-of-pipe monitoring).
- Consider an industry partnership to set up the water quality analysis laboratory.
- **Note:** Capacity development needs include training environmental programme staff and voluntary coastal officers; water quality monitoring and analysis skills.

Monitor trends in water quality and identify risks to human and environmental health. This will be achieved incrementally; the first pilot area is the Eastern Cape coastline (planned for September - 2016)

Implementing agency: DEA

Key stakeholders identified

- DAFF; DWS; DST; DPE (Transnet); DMR, Provinces; Metros; Municipalities, SABS

Required resources

- Investment (ZAR 25 mn initial investment plus maintenance and sampling budget, ZAR 8 mn/yr)

Implementation timeframe

- Start date: April 2015
- End date: Ongoing

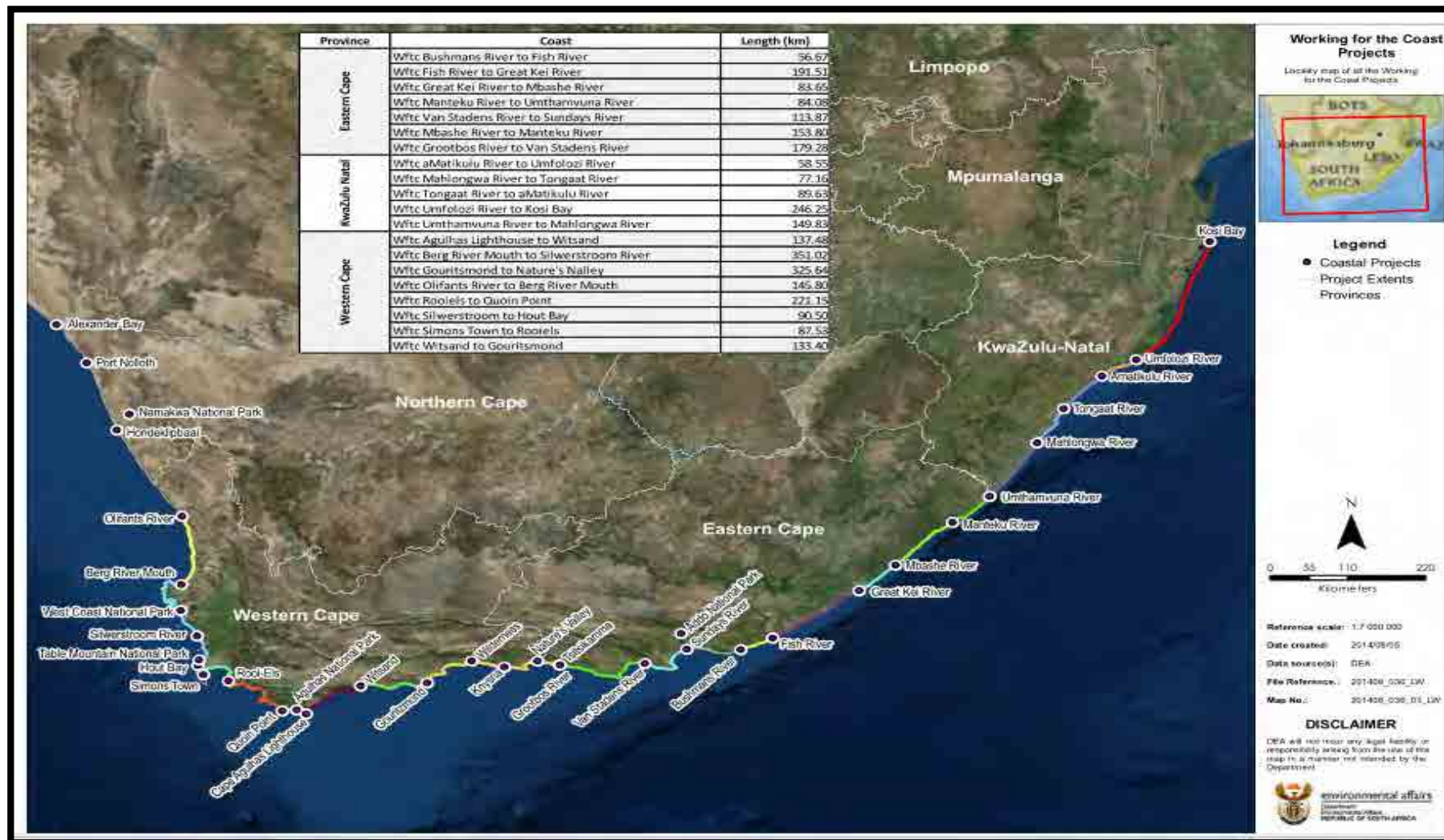
Key milestones

- 2016: Water quality analysis laboratory set up
- Water quality status of Eastern Cape routinely monitored and reported on
- 2017-2019: Additional province covered per year (full national coverage by 2019)
- 2019 onwards: Ongoing monitoring and reporting

INITIATIVES

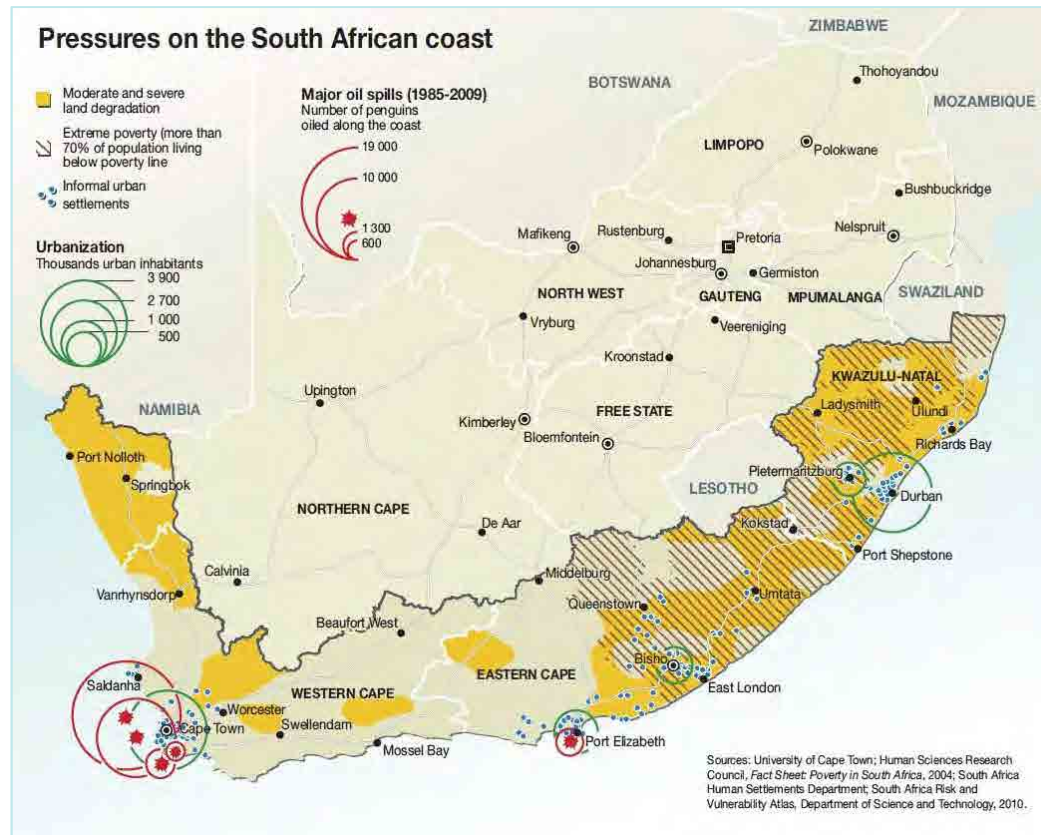
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The DEA's Working for the Coast Project covers a large area of the coast, and the NOCMP intends to leverage this



DEA 29 implementation teams assembled along the coastline implementing the NOCMP

Population activities and economic growth along the coast will make the NOCMP increasingly important



- Given the increase in ocean and coast industrial activity, South Africa must determine if dangerous pollution is accumulating.
- A large and growing number of people are living on and visiting the coast.

- The NOCMP will mitigate the risk of exposure to harmful pollution by informing people of potential impact on their health and managing or rehabilitating the affected areas.
- South Africa has no national method of assessing and reporting pollution.

SOURCE: 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.

The NOCMP will expand on existing environmental programmes (EPs) and set up a national marine pollution laboratory

Expansion of existing environmental programmes



- The NOCMP will use EP teams already deployed along the coast to collect samples for analysis and monitor the coastline
- In addition, it will engage with local schools on pollution and real applications of science and technology

Run an awareness campaign through National Marine Week and use existing water quality guidelines from the Blue Flag beaches programme

National marine pollution laboratory



- Establish a national marine pollution laboratory that analyses samples collected by the EP coastal teams
- The lab will support analyses required by aquaculture farms and municipalities
- The lab may be located at a coastal university to build a centre of competence

The NOCMP will include initiatives that provide up-to-date health indicators around South Africa's coasts

Before

Harmful pollutants washed up on public beaches can cause major health risks



After

The **NOCMP** aims to provide clear indicators on the safety of coastal areas for public health



8: Creation of an MPA representative network

Case for change:

To safeguard biodiversity and the ecosystem services provided by the ocean, and in so doing facilitate sustainable development of ocean economic opportunities.

Initiative milestones:

1. Produce a technical report detailing the proposal for an MPA network with boundaries, objectives, key stakeholders and consultation process approved by the DG of the DEA
2. Publish the intention to declare an MPA network in the Government Gazette, for public consultation, with an appropriate awareness campaign
3. Consult stakeholders and prepare revised MPA network proposal
4. Declaration of the MPA network
5. Draw up management plans to implement the new MPAs
6. Complete a protected area expansion plan

Fast-track protection of areas of particular importance for biodiversity and ecosystem services by establishing a suite of effectively and equitably managed protected areas to create an ecologically representative MPA network that covers at least 5% (53 594 square km) of the EEZ by 2016

Implementing agency: DEA

Key stakeholders identified

- DAFF, DMR
- Provincial departments and entities
- Oil and Gas, Mining, Fishing Industries
- National and Provincial Conservation Agencies
- NGOs

Required resources

- Investment R 6.43 million

Implementation timeframe

- Start date: July 2014
- End date: 2018

Key milestones

- 2014: All MPAs in the proposed network gazetted for comment
- 2015: Consultation process complete
- 2016: MPA Network covering at least 5% of the mainland EEZ declared
- 2017: Management plans approved for all new MPAs
- 2018: MPA expansion plan to achieve an effective representative network

Marine resources play a critical role in the economy and livelihoods of South Africans



Fisheries play a critical role in providing direct and indirect livelihoods for over **140 000** people in communities along the coast



South Africa's commercial fishing industry employs **43 458** people, including seasonal and permanent jobs



In 2009, about **583 000** tons of fish were landed worth **R4.4** billion. Commercial fisheries contribute about **0.5%** of South Africa's GDP. For example, in the Eastern Cape, **R500** million in foreign revenue is generated by the squid fishery every year, making it one of the country's most valuable fisheries.



The overall value of ecosystems in KZN was estimated at **R149** billion per annum. Of this, sandy beaches, rocky shores and surf zones accounted for close to **R300** million and near-shore environments and reefs over **R4.2** billion. The total value of the catch was approximately **R23** million.



The KZN shore-based line-fishery is estimated to be worth between **R287** and **R474** million



KZN's recreational shore fishery as an industry is a major contributor to the gross geographic product within the KZN coastal region

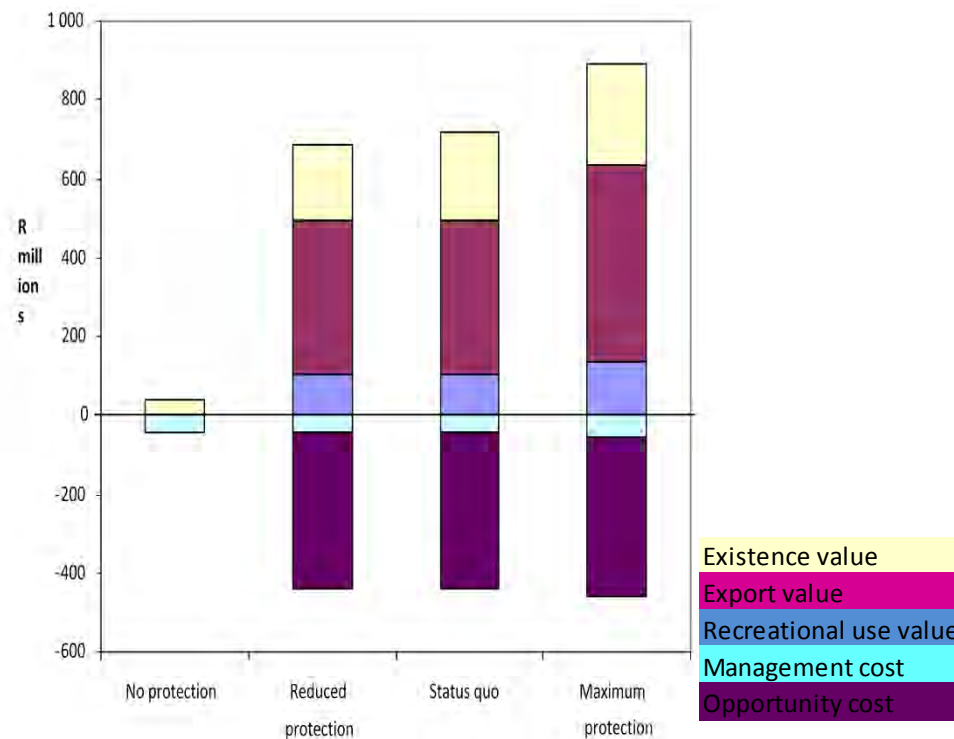


The sociological and psychological importance of recreational shore fishing as a method of relaxation and enjoyment for coastal communities is enormous

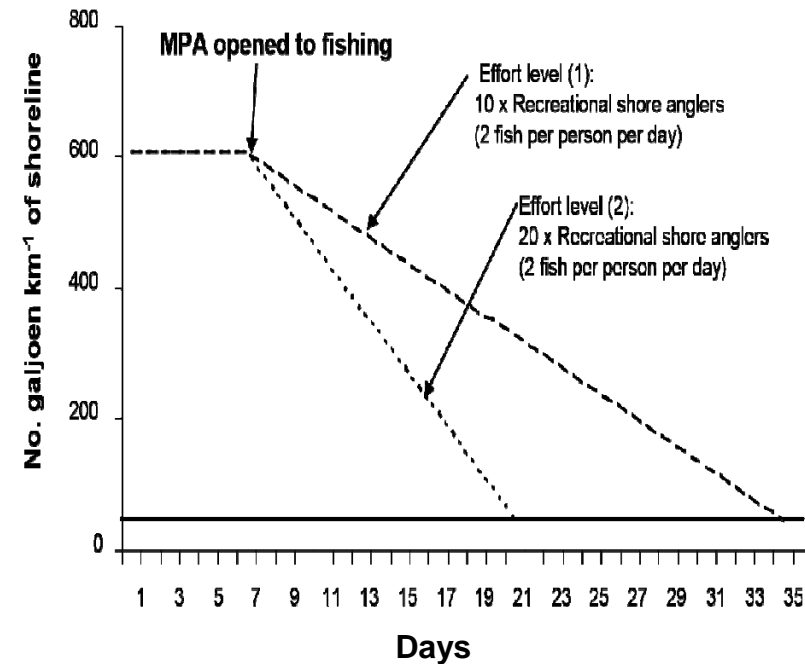
The current status of MPAs is troubling: too little of our ocean space is sufficiently protected to ensure sustainable economic growth

- South Africa currently has 23 MPAs covering approximately **0.4%** of our mainland EEZ. Protection is poor compared to that of other developing countries (5.8% average).
- South Africa is currently ranked **90th out of 130** developing nations in terms of its level of ocean protection.
- Over **40%** of habitat types are not represented in the MPA network.
- A total of **13** habitat types are both critically endangered and have no protection and these are priorities for representation in the MPA network.
- Most of these unprotected habitat types are offshore, reflecting the fact that almost all of South Africa's existing MPAs extend only a few kilometres from the coast.
- Many of our marine resources are overexploited: fisheries are in a state of depletion and other ecosystem services are in state of decline.

MPAs enable large economic benefits, such as a higher fish yields



a) Economic benefits arising from various level of protection

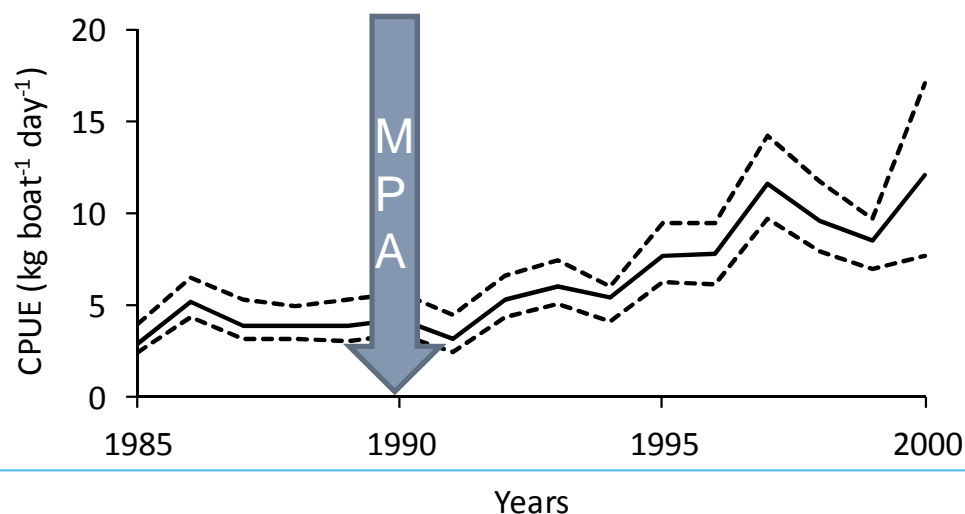


b) Impact on MPA when opened to fishing

For example, the three MPAs along the Garden Route coast are worth about R238 million. Creation of MPAs also promotes stock recovery value after 10 years of proclamation.

MPAs have a strong positive effect on fisheries; depleted fish stock can recover and provide spill-over into nearby areas

- The creation of MPAs in key areas promotes improved fishery profits and recovery of over-exploited resources
- Direct benefits for South Africa's fisheries from the proposed Phakisa MPA network are expected from net migration (spill-over) of adult fish into adjacent areas and increased export of eggs and larvae
- The highest net gains in the form of improved yields and reduced costs of fishing are anticipated for rock lobster and over-exploited reef-associated line-fish
- By protecting crucial spawning and nursery habitats, the Phakisa MPA network will help achieve recovery goals for collapsed important species stocks that were once so abundant that they formed the mainstay of traditional line-fishers in many coastal communities
- MPAs also act as an insurance against management failures



Fish stocks recover as a by-product of an adjacent MPA

Study: Kerwath *et al.* 2013 (South Africa)

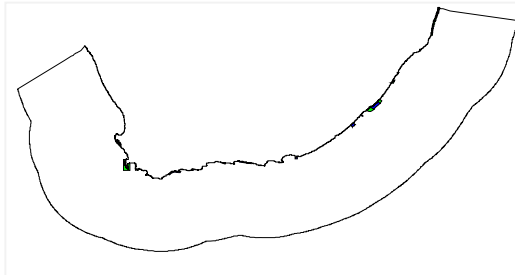
Source: Goñi et al. 2010; Kerwath et al. 2013; Roberts et al. 2005; Rice et al. 2012; Kerwath et al. 2013; (Goñi et al. 2010); (Griffith et al. 2000).

MPAs are a key tool to mitigate impacts of climate change and maintain options for the future and the ability to adapt to change

- Intact natural systems found within MPAs play an important role in carbon sequestration
- MPAs help to reduce or prevent ocean acidification
- MPAs reduce the likelihood of fishery collapse
- MPAs enhance ecosystem resilience to large-scale climate change and catastrophic climate events
- MPAs will provide a platform for monitoring trends in climate change

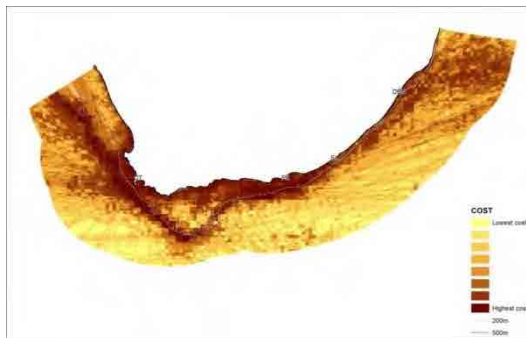


Without sufficient protection within MPAs, rapid degradation of ocean resources will occur. Replacing lost natural services has a high economic and social cost



**Existing MPA network
– minimal coverage (0.42%)**

Average protection of EEZ in
developing countries = 5.8%



**Current cross-sectorial usage (98%)
Heat Map**

An MPA network is a key component of MSP that can unlock economic opportunities by **creating certainty, streamlining permit processes for industry and managing conflict**

An MPA network creates a large number of jobs in marine industries, sustaining **livelihoods, food security and tourism**

An MPA network is important to **increase ecosystem resilience, maintain genetic biodiversity** and our **ability to cope** with and adapt to change

An MPA network allows **access to new markets** through eco-certification (e.g., green fishery certification that enhances exportability)

An MPA network **aligns with international and national development and protection plans and targets** (CBD, NPAES)

An MPA network is a practical and **cost effective management tool**

South Africa must take advantage of the economic benefits of a representative MPA network

Opportunities exist to secure South Africa's marine and coastal habitats

Although 47% of South Africa's marine and coastal habitats are threatened, there are still opportunities to restore them by securing the remaining healthy habitats, preventing further damage and safeguarding the ocean environment for future generations

South Africa is well positioned to expand its MPA network

Systematic planning has identified several strategic geographic priority areas for the establishment of new MPAs

Last opportunity before wide-scale exploration

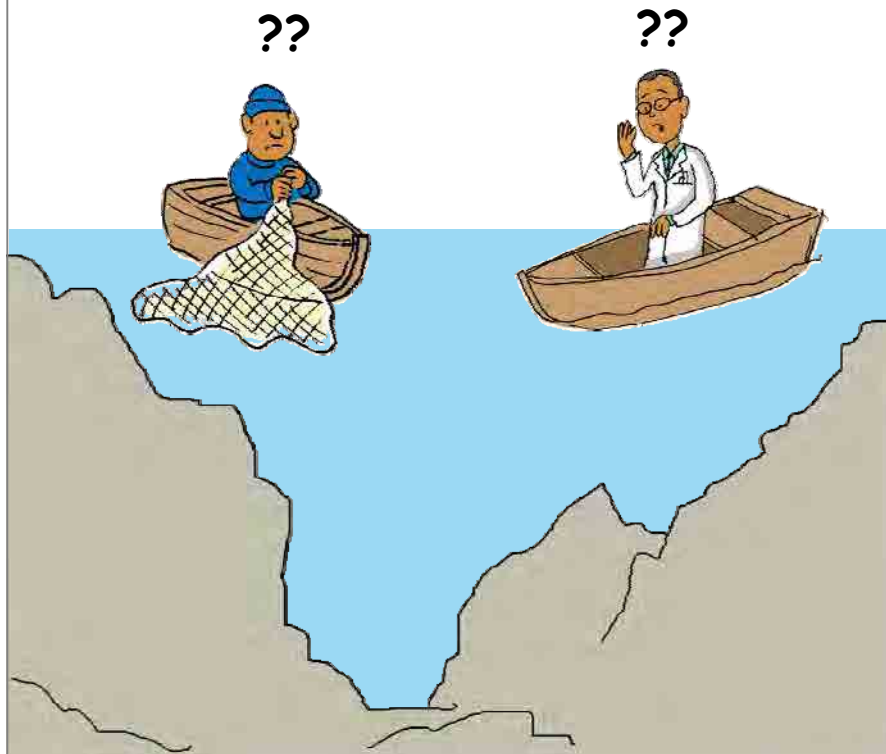
Operation Phakisa is an appropriate and well-timed forum to engage stakeholders in the ocean space awaiting to unlock the ocean economy to ensure sustainable exploration and economic exploitation

If the ocean isn't healthy, neither are we!

By developing a representative MPA network, multiple sectors can co-exist within the ocean environment

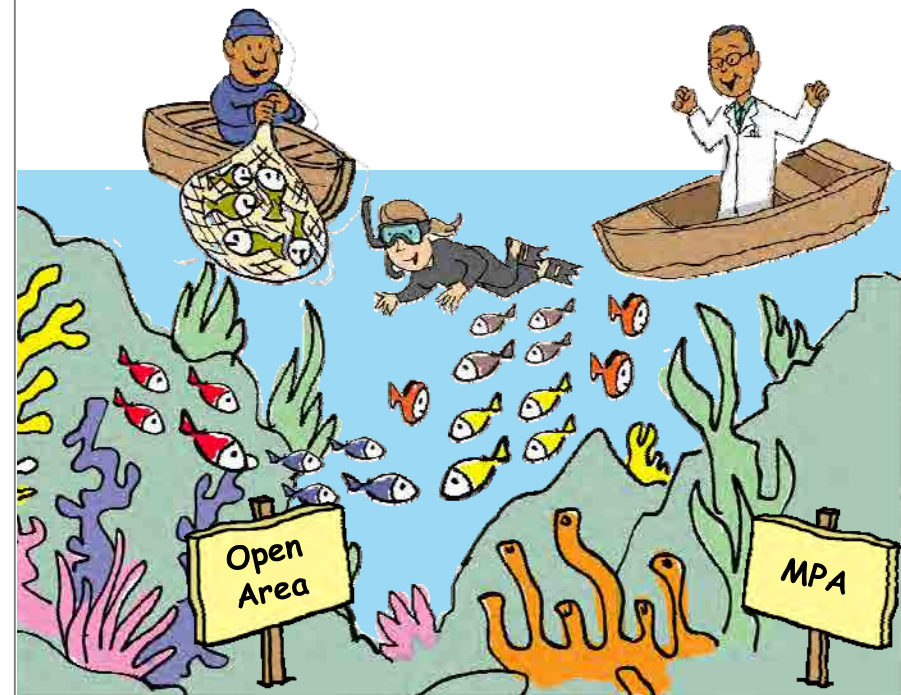
Before

Areas are overfished - sensitive and unique biodiversity habitats will no longer exist



After

Fish stocks are replenished and intact. Vibrant habitats enable various economic activities to take place in and around the **MPA representative network**



Our proposed strategy is to establish an MPA network within three years

- 1 ■ Unblock/fast-track existing identified MPAs for which the process is already advanced: Algoa Bay (Eastern Cape) and Namaqua (Northern Cape), KZN, the Western Cape
- 2 ■ Proclaim offshore marine protection areas

The Phakisa process will enable South Africa rapidly to deliver a network of MPAs that will allow the country to unlock the ocean economy safely and sustainably for the first time. It will provide certainty for ocean industries while ensuring protection of threatened ecosystems and species.

This proposed MPA network takes into account:

- The Small-scale Fisheries Policy
- Socio-economic demographics
- Emerging aquaculture projects
- Industrial development zones
- National Development Plan
- All offshore industries
- Other Phakisa Lab initiatives
- Lessons learnt from previous MPAs
- Population distributions
- Climate change impact management



Target: Proclaim a representative network of MPAs that protects at least 5% of mainland South Africa's EEZ

Each area to be identified and designated as a protected area will undergo a comprehensive consultation process

Targets are determined based on international standards and scientific research

Why set MPA targets?

- To quantify goals to measure progress
- To allow systematic conservation planning
- To make the planning process more transparent and defensible

International standards

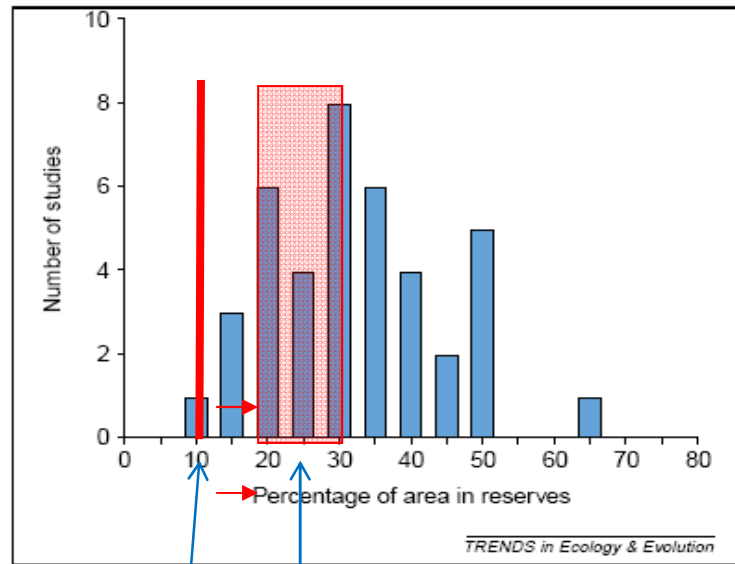
- The **World Parks Congress** in 2003 called for strictly protected marine areas to cover “**at least 20–30%** of each habitat”
- **Convention on Biological Diversity (CBD)** in 2004 agreed to establish “comprehensive, effectively managed, and ecologically representative national and regional systems” of MPAs by 2012. In 2010 they agreed that “by 2020 **at least 10%** of coastal and marine areas, especially areas of particular importance for biodiversity and ecosystem services should be conserved through ecologically representative and well-connected systems of protected areas and other area based measures.”
- The existing **South African National Protected Area Expansion Plan of 2008** calls for 15-25% protection within MPAs (depending on inshore/offshore) **by 2028**

Scientific research

- **Biodiversity targets** aim to ensure sustainability and most range from 20-35% for individual habitats, species or processes. They refer to the threshold for how much of each biodiversity feature (habitat or species) should be secured to ensure it will survive.
- Extensive research has resulted in the identification of 21 known **critical biodiversity areas (amounting to approximately 7% of our EEZ)** that require urgent protection. These include the best options for protection, including remaining habitats in good condition and irreplaceable features.

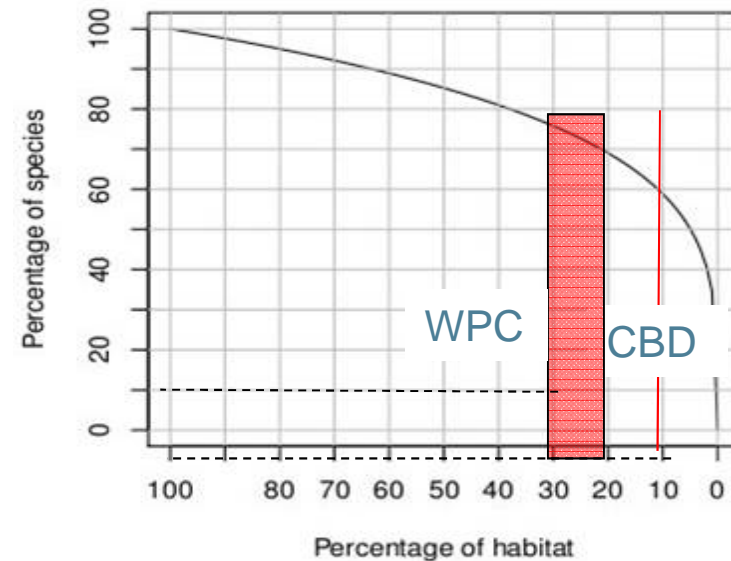
A 5% ocean protected area target is modest and is considered an immediate and achievable step towards sustainability

Convention on Biological Diversity (CBD) = 10%
World Parks Conference (WPC) = 20-30%



CBD WPC

Majority of studies show that targets of 20-35% of an area needs to be protected (no take) for environmental sustainability



Rondinini avg =
30% for 80% rep

To conserve 80% of the species in a habitat, at least 30% of that habitat must be protected

South Africa lags behind its BRICS peers in terms of ocean protection level for mainland EEZs

Country	% MPA of mainland EEZ		Developed	Developing	Undeveloped
Brazil	10.2	No. of countries surveyed	40	130	7
Russia	3.3	Ave. %	11.2	5.8	34.4
India	1.6	South Africa %		0.4	
China	3.2	South Africa rank	34 th of 40	90th of 130	4 th of 7
South Africa	0.4				

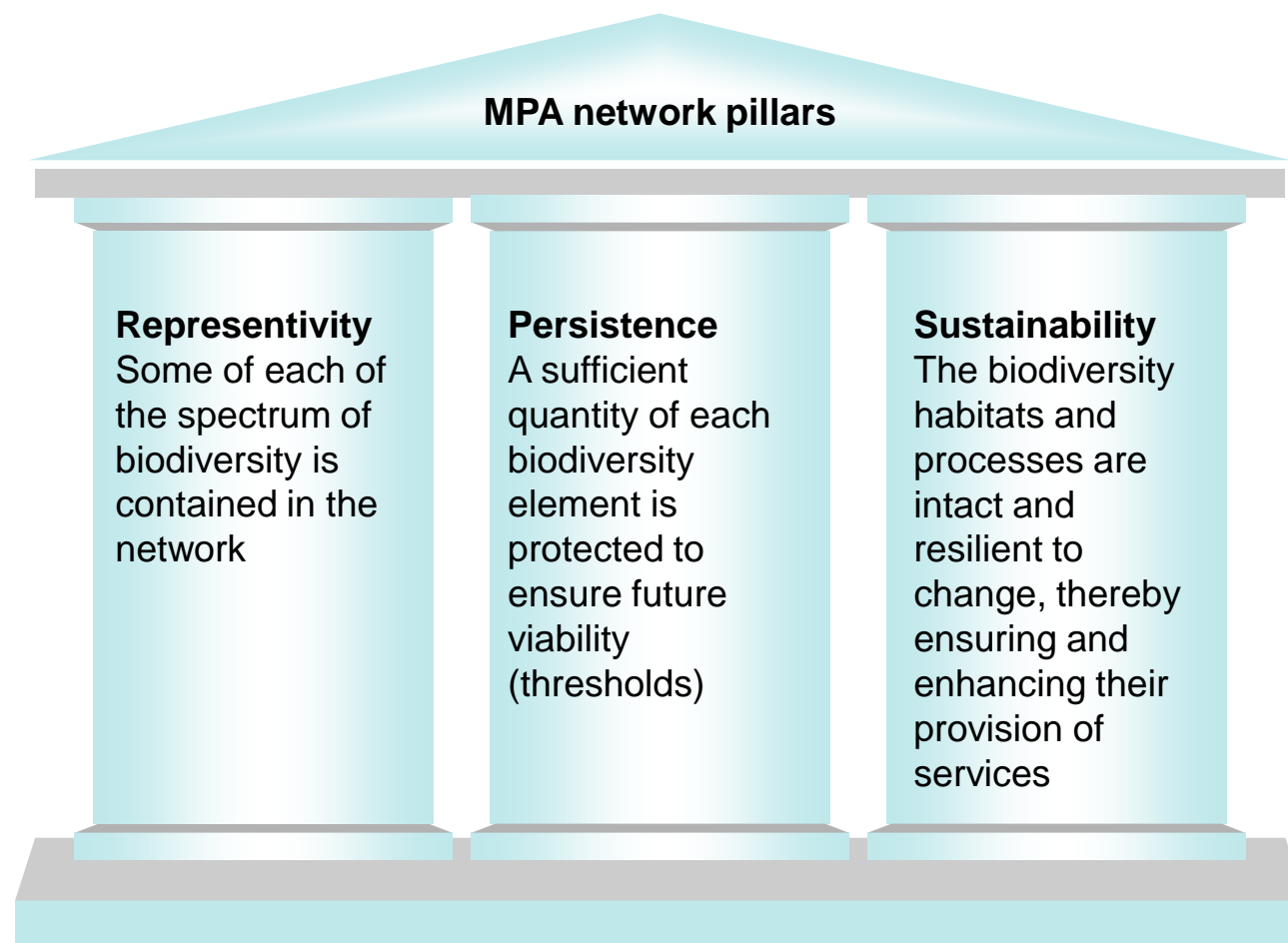
Source: IUCN, UNEP-WCMC (2014); The World Database on Protected Areas (WDPA), Cambridge (UK); UNEP World Conservation Monitoring Centre

MPAs are carefully selected to protect the most vulnerable areas and allow economic development

Operational definition of “protected”: Exclusion of any activity that could have an adverse effect on habitat integrity, ecosystem function, species abundance and richness, resilience, persistence, provision of ecosystem services or sense of place **of the area to be protected**

Selection principles

- Habitat representation (pre-cautionary general approach)
- Benthic protection (habitats for sustainability/ biodiversity) by-catch management (protect vulnerable fish species)
- Climate resilience
- Increased certainty for ocean industries
- Protect threatened species (e.g., sea birds)
- Least impact on existing and future industries and other activities



MPAs are identified and evaluated through a thorough scientific and socially conscious process

1

Identification of MPAs based on rationale

- Habitat representation
- Critical biodiversity areas (irreplaceable)
- Sensitive habitat protection
- Threatened ecosystems and species
- Key ecological areas: nursery, spawning, feeding
- By-catch and fisheries management support
- EBSAs – scientific exercise (no socio-economic considerations)
- Criteria: unique, vulnerable, life history, naturalness and productivity, threatened habitats and species, diversity

GIS multi-layer maps produced

2

Consideration of socio-economic costs and benefits

Consideration of socio-economic costs and benefits: avoid high-use areas wherever possible

See **Technical Report** for technical tables produced as part of the Lab. Expert exercise done to date to guide Step 3

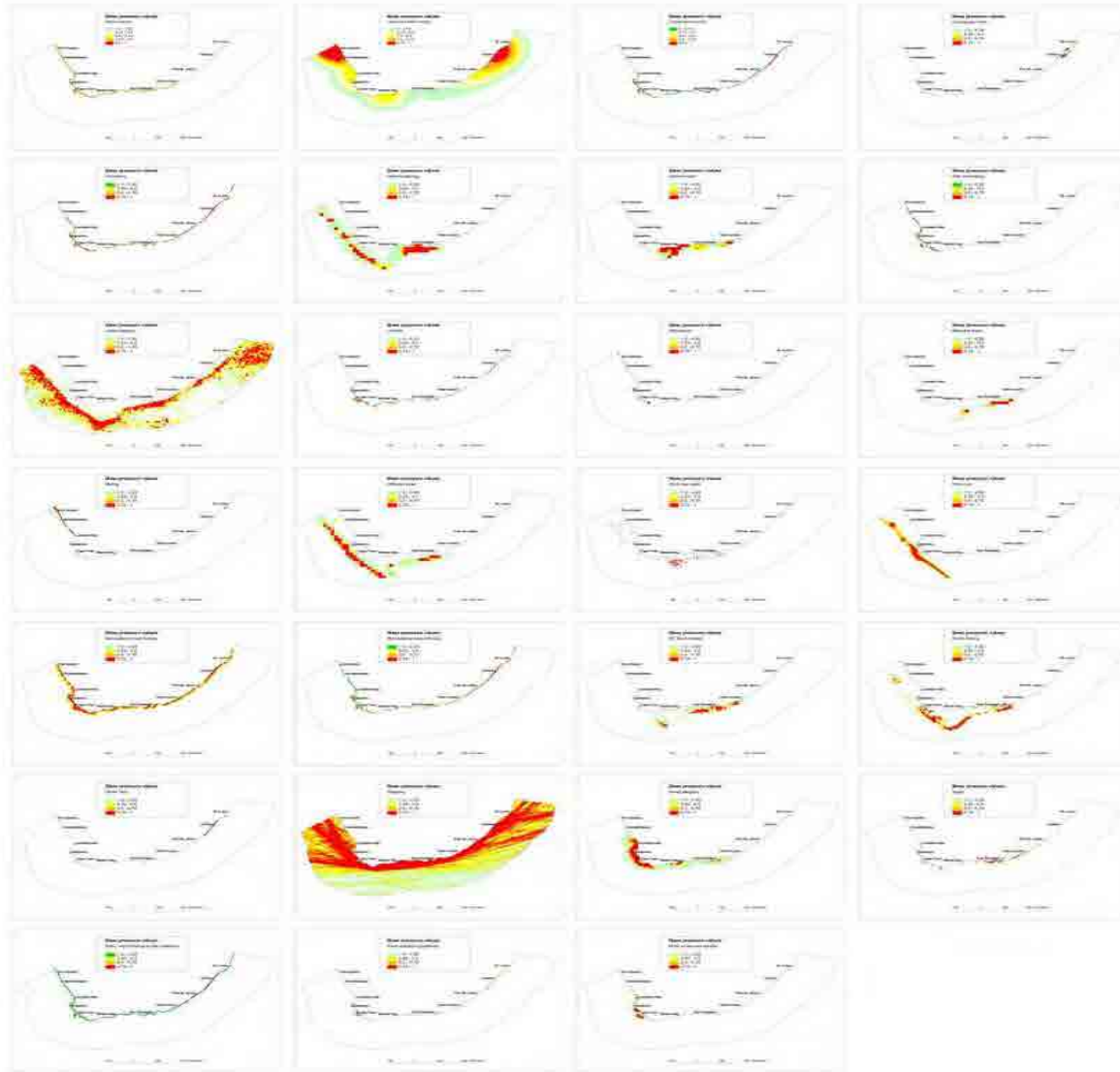
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Evaluation of activities permitted and conflict resolution process

- Zonation of permissible activities – green/orange types, e.g., scuba diving, shipping, ecotourism, research (see Table)
- For incompatible activities, options include:
 - Excise areas that include red activities (e.g., trawling) – seek target elsewhere (offset)
 - Or zone as a Controlled zone = C zone = not target contribution
 - Phase out incompatible activity

Precautionary principle applies – i.e., burden of proof lies with the user

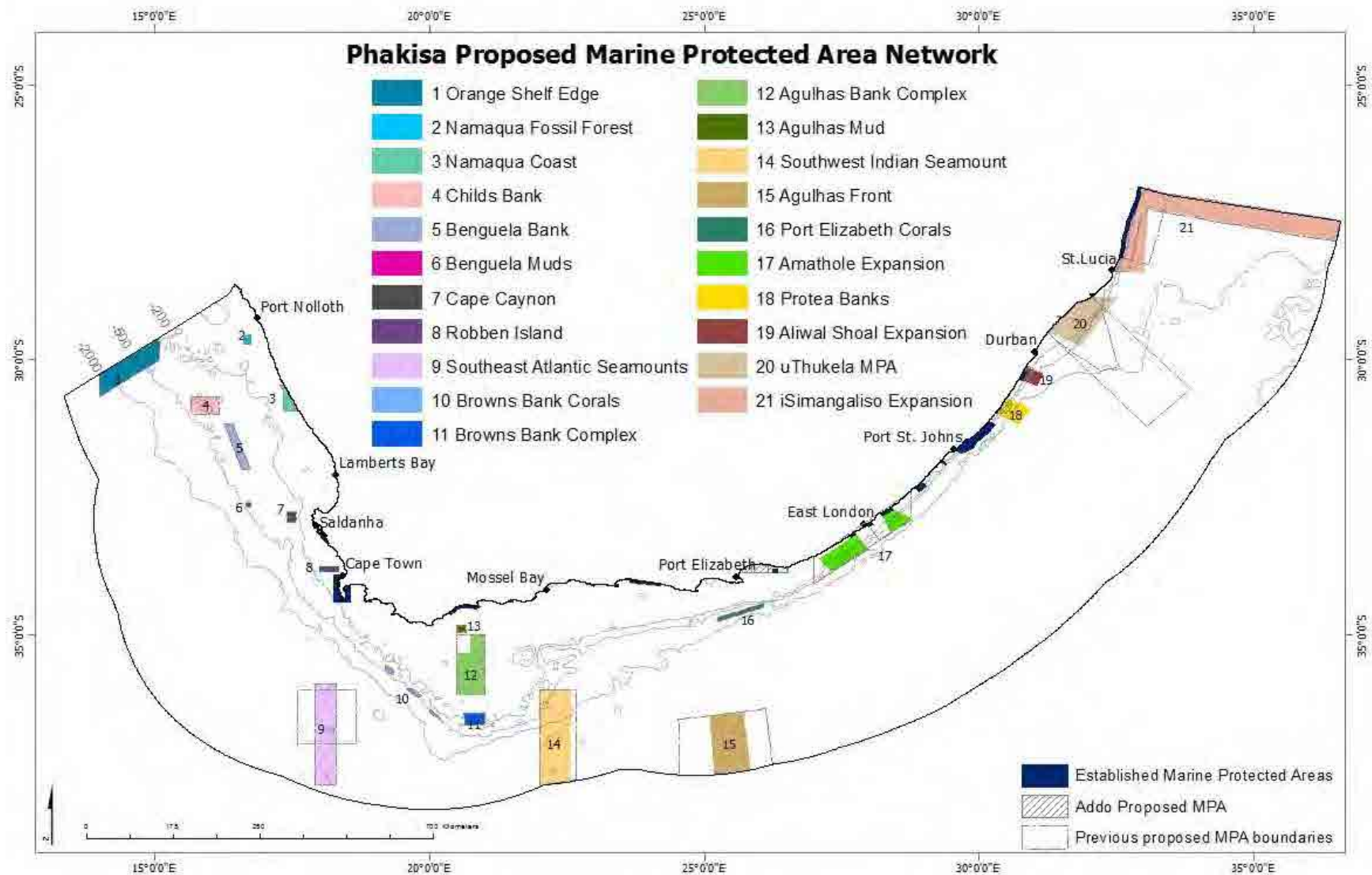
We analysed 27 GIS use layers and biodiversity feature distributions to map the priority areas for consideration and identify conflict



27 GIS layers

- Alien invasives
- Catchment MAR change
- Coastal development
- Commercial fishing (15 sectors)
- Disturbance
- Diamond and other mining
- Oil and gas wells
- Recreational fishing (2)
- Shark nets
- Shipping
- Subsistence fishing
- Waste water discharge

Proposed areas to be included in the MPA network



** Boundaries adjusted in the Lab as a result of consultation

Overview of proposed MPA objectives (1/2)

Area/objectives	Benthic rep	Pelagic rep	Threatened habitats, Spp	Sensitive habitats	Fisheries recovery	Ecological processes	EBSA	Research	Scenery and tourism
Orange Shelf Edge	Y	Y	Y	Y	Y	Y	Y	Y	
Namaqua Fossil Forest	Y		Y	Y			Y		
Namaqua Coast	Y	Y	Y	Y	Y		Y		Y
Childs bank submarine mound	Y		Y	Y	Y		Y	Y	
Benguela Bank /hard grounds	Y		Y	Y			Y	Y	
Benguela muds	Y		Y	Y			Y	Y	
Cape Canyon	Y	Y	Y	Y	Y	Y	Y	Y	Y
Robben Island	Y	Y	Y	Y	Y				Y
Southeast Atlantic Seamount	Y	Y		Y				Y	
Browns bank corals	Y		Y	Y	Y		Y	Y	
Browns bank complex	Y	Y	Y	Y	Y	Y	Y	Y	

Overview of proposed MPA objectives (2/2)

Area/Objectives	Benthic rep	Pelagic rep	Threatened habitats, Spp	Sensitive habitats	Fisheries recovery	Ecological processes	EBSA	Research	Scenery and tourism
Agulhas bank	Y	Y	Y	Y	Y	Y	Y		
Agulhas muds	Y	Y	Y	Y			Y	Y	
Southwest Indian Seamount	Y	Y	Y	Y			Y	Y	
Agulhas Front	Y	Y	Y			Y	Y		
Port Elizabeth Corals	Y	Y	Y	Y	Y	Y	Y	Y	
Agulhas habitat complex	Y	Y	Y	Y	Y		Y	Y	
Protea Banks	Y	Y	Y	Y	Y	Y	Y		Y
Aliwal shoal expansion	Y	Y	Y	Y	Y	Y	Y		
uThukela Banks	Y	Y	Y	Y	Y	Y	Y		
iSimangaliso expansion	Y	Y	Y	Y	Y	Y	Y		Y

Each area will undergo a comprehensive consultation process...

Consultation process	Start date	End date
Consultation period of 60 days consists of workshops with communities, local stakeholders, provincial and municipal role-players. Professional and neutral facilitators will be used from the private sector or government. The specific agency that would manage the MPA may play a prominent role. The main purpose of the workshops is to inform and empower people to submit comments.	01.04.2015	31.05.2015
Hold at least one national consultation workshop for O&G, mining, fishing and other large industries for the offshore component of the MPA network in the 60-day consultation window. The main purpose of the workshop is to inform and enable people to submit written comments.	01.04.2015	31.05.2015
Receive all comments (including from other organs of state), acknowledge and collate in June	01.04.2015	30.06.2015
Consider comments received, make recommendations to resolve issues that arise and prepare comments response table.	01.07.2015	30.07.2015
Revise and improve MPAs based on consideration of comments, in particular on boundaries and zonation. May include stakeholder or sector engagement. May need high resolution mechanisms.	01.08.2015	31.10.2015
Legally draft/check declaration notices and regulations (get additional support)	01.10.2015	31.12.2015

...that will build on consultations done prior to the Lab

National Offshore MPA Project 2007-2012 : 19 meetings

Individual sector meetings and three large multi-sector workshops: DEA, SANBI, DAFF, DMR, Petroleum Agency South Africa

- 18 fisheries sectors
- Fishing industry associations
- Marine Diamond Mining Association
- Offshore Petroleum Association South Africa
- Council for Geoscience

KZN MPAs August 2009 – March 2014

- Ezemvelo KZN Wildlife, DEA, DAFF, Petroleum Agency South Africa, KZN Sharks Board
- iSimangaliso Wetland Park Authority
- ORI, SANBI, SAEON, CSIR, Universities
- eThekweni and Ugu Municipalities
- KZN Crustacean Trawl Association
- Fishermen, scuba divers, charter
- Coastal conservancies
- **Aliwal Shoal task team – additional nine meetings**
- **Uthukela task team – additional three meetings**

Namaqua MPA planning

17 July 2012 Namaqualand MPA stakeholder workshop, Okiep (NamaGroen, Thombo)

Sept 2012-Aug 2013 individual stakeholder meetings (Namagroen, De Beers, Thombo, PetroSA, Thombo, Sunbird Energy)

Provincial Coastal Committee, Working Group 8, Joint Task Team Mining and Environment

During the Lab, the team consulted with internal and external stakeholders

In-Lab syndications

- Aquaculture – four syndications
- Oil and Gas – three syndications
- DAFF – two syndications (+ *lab participant input*)
- FishSA
- DMR
- PASA
- MPA specialists
- Marine scientists

- Enforcement sub-group
- MSP sub-group
- Governance sub-group

Stakeholders consulted

- **KZN stakeholders**
- Coastwatch and other NGOs
- Crustacean Trawl Fishery Association
- Charter fishermen
- Divers

- **Eastern Cape stakeholders**

See Appendix for complete syndication and consultation report

The Phakisa process allowed the team to engage in meaningful consultations with key stakeholders and develop the proposed MPA network

Aquaculture



Key areas discussed:

- All proposals except one are land-based: Amatikulu
- Proposed new MPAs
- Proposed MPA boundaries adjusted in the Eastern Cape
- No conflict identified between Phakisa Aquaculture lab and proposed Phakisa MPA network

Oil and gas



Feedback received and progress made:

- 5% target considered acceptable
- Oil and gas lab highlighted the importance of certainty in MPA expansion
- Prospecting not considered compatible with protection
- Lease map and shape files provided by PetroSA to MPA planning team
- Overlay maps produced
- Key stakeholders per MPA identified
- Boundaries of five proposed MPAs adjusted to take into account industry interests

The Phakisa process also allowed the team to identify the way forward fast

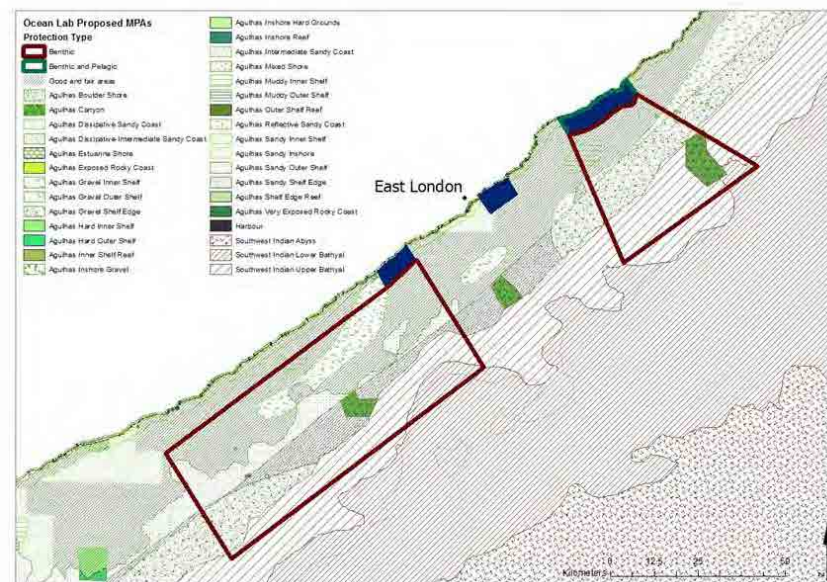
Products produced in Lab to guide next steps

- Technical document on proposed MPAs, including latest detailed maps
- Compilation of stakeholder reports setting out syndications and other consultation notes
- MPA risks and solutions assessment



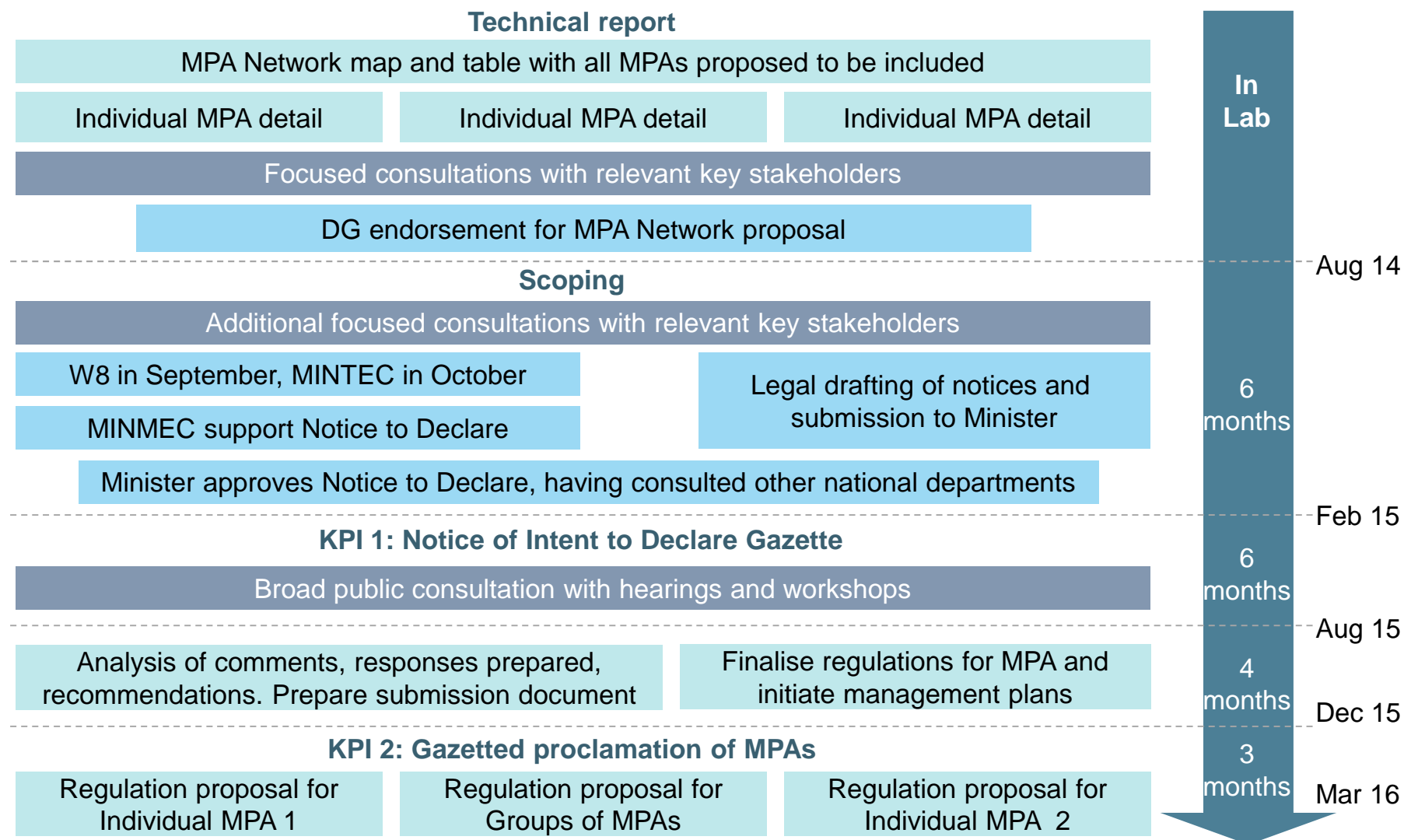
To facilitate information-sharing with stakeholders we will prepare one scoping document per MPA/group of MPAs

- Overall rationale, objectives and process followed to declare an MPA network
- Map showing all areas, highlighting area or areas under consideration for this scoping
- Clear, but adequately detailed map of the general area, the boundaries of the MPA identified and including names of features such as bays, points, towns, villages and bathymetry. Only include zonation if it is a clear matter, e.g., if one half of the MPA is much less strict than the other
- Biodiversity and or habitat map with text clearly showing location of main features driving the need for protection
- Notes or table indicating which main activities or sectors would be affected by the MPA, and benefits
- Indicate the information we are seeking to get from the scoping, e.g., key parties, local knowledge, user perspectives, potential problem areas



Map: Example specific map that will be prepared for each area

A thorough and comprehensive consultative process will commence immediately with the goal of gazetting the proposed MPA network by March 2016



9: MPA/MSP discovery, research and monitoring (DRuM) towards comprehensive MSP and an MPA representative network

Case for change:

To unlock the "blue economy" sustainably and avoid unnecessary conflict between sectors the required discovery, research and monitoring (DRuM) will need to be carried out on SA's marine domain. DRuM will produce the data required to enable effective MSP and establish a representative MPA network.

Initiative details:

1. **ACEP and Phakisa Ocean Cruises (Milestone 1):** Immediate reprioritisation of the existing DST-led research programme called the African Coelacanth Ecosystem Programme (ACEP) to include MPA/MSP research through the establishment of DEA/DST Phakisa Ocean cruises. Budgets and logistics exist within DEA and DST. The programme will start in September 2014.
2. **MPA/MSP Research, Monitoring and Capacity-building Committee (Milestone 2):** Establish MPA/MSP Research, Monitoring and Capacity-building Committee that co-ordinates relevant research and monitoring in SA. Budget sourced internally within DEA and DST. The Committee will report to the overarching marine co-ordination structure. Establish end of 2014
3. **MPA/MSP DRuM Programme (Milestone 3):** Develop and implement a dedicated three-year DRuM programme aimed at providing data for MSP and a representative MPA network. Additional budget needs to be secured for ship time and research (estimated ZAR 76 million). The programme will include co-operative research with industry. Design (2015); implementation (2016-2018).
4. **MPA/MSP Scoping Exercise 2018-2030 (Milestone 4):** A scoping exercise to establish the MPA/MSP research and research infrastructure needs for 2018 to 2030 will be undertaken in 2016.
5. **Capacity Building and Transformation Programme (Milestone 5):** Capacity building will be undertaken for initiatives 1- 4 supporting over 100 postgraduate students.

Implementing agency: DST and DEA
Key stakeholders identified

- DAFF, DMR
- Provincial departments and entities
- Oil and Gas, Mining, Fishing Industries
- National Facilities, HEIs Conservation Agencies and NGOs

Required resources

- Existing ZAR 50 mn (Milestone 1)
- **New ZAR 76 mn (Milestone 3)**

Implementation timeframe

- Start date: July 2014
- End date: Dec 2018

Key milestones

- 2014: Immediate inclusion of an MPA /MSP thrust in an existing collaborative programme
- 2015/16: Prepare dedicated DRuM programme
- 2016-2018: Dedicated ERM programme

This initiative recognises that DRuM is needed to support and optimise MSP and the development of an MPA representative network

Aspiration

- Contribute to the overall MSP process by providing data on biodiversity, oceanography, pollution and benthic environment/geology for areas of the EEZ.
- Identify important areas for protection in the next five years, recognising that more research is needed to support the development of an MPA representative network.
- Conduct research in poorly studied areas to provide spatial data for MSP and assess these areas for possible inclusion in an MPA representative network.
- Develop monitoring systems to assess effectiveness of the MPA network.

These aims will ensure that the Blue Economy is unlocked sustainably and conflict between sectors minimised

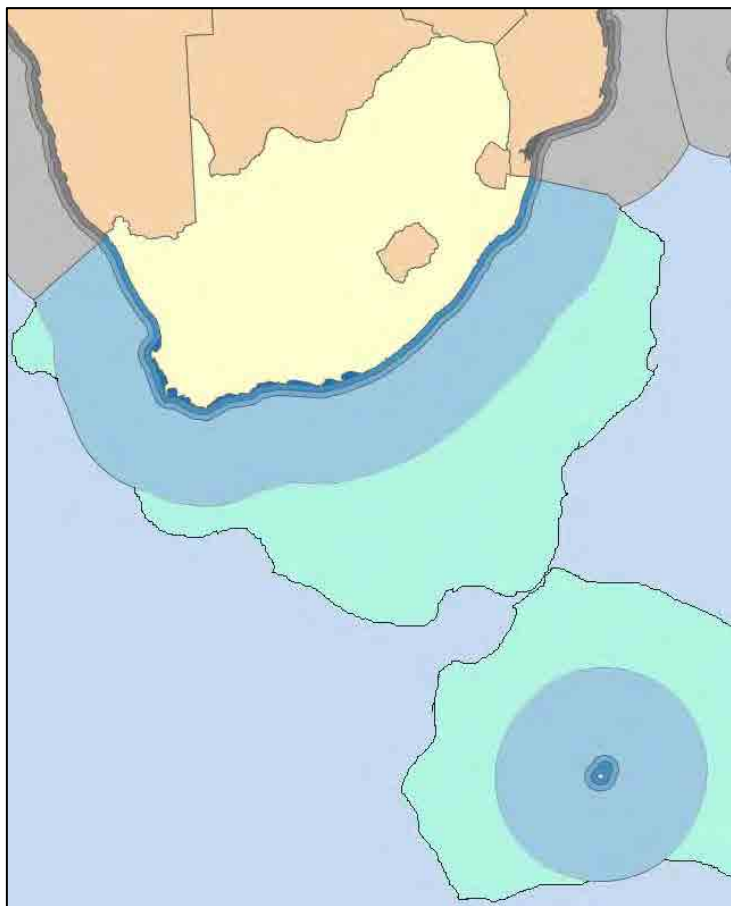


Research on MPAs and to inform MSP is critical to the growth of the economy

- Potential growth in the three economic sectors in the Phakisa process - Oil and Gas, Aquaculture and Marine Transport and Manufacturing - along with the extended continental shelf claim currently being adjudicated under the United Nations Convention on the Law of the Sea will require intensive MSP to ensure all economic sectors are run in an environmentally sustainable manner, so that none of the essential services (fisheries, tourism, carbon sequestration, etc..) provided by the oceans and coasts are compromised.
- A clear spatial understanding of the entire ocean domain (biodiversity, sensitive areas, geology, habitats, economic uses) is urgently required if the Blue Economy is to grow sustainably.
- By identifying key sensitive areas early in the process, future conflict and complex trade-off scenarios between various sectors are avoided.
- The establishment of an MPA representative network through consultation with all key stakeholders will ensure conservation targets are met while allowing key industrial sectors (Oil and gas, aquaculture and maritime industries) to grow.

An MPA representative network is critical for socio-economic development; as our ocean space expands, more research will be required to determine what the network looks like.

Land mass EEZ Extended continental shelf claim



Land size:

1.2 mn km²

EEZ size:

1.5 mn km²

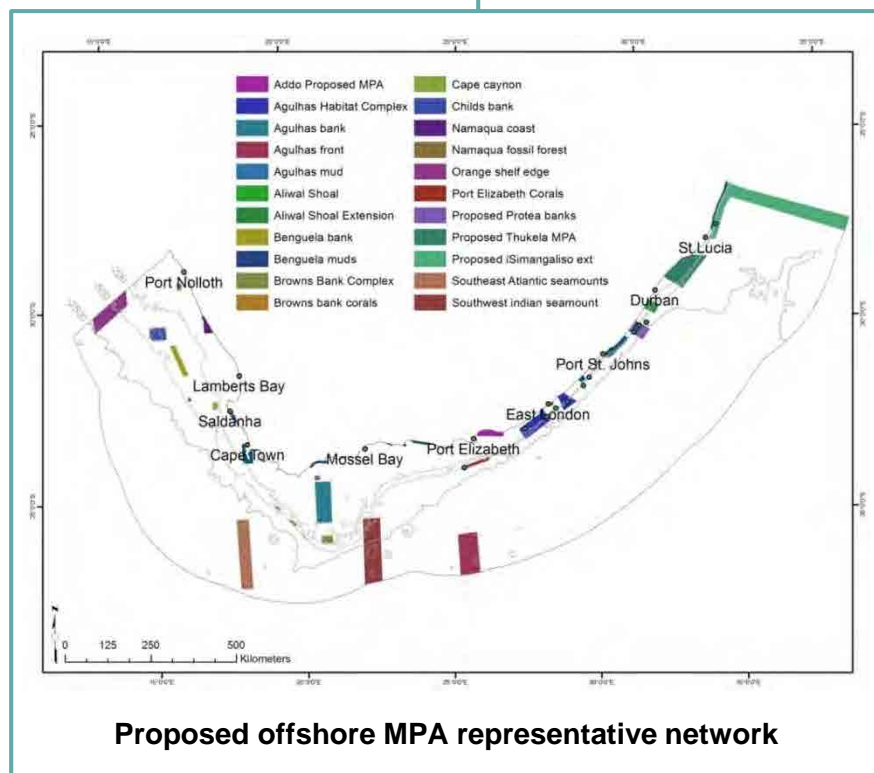
Extended continental shelf claim

> 1.5 mn km²

Current MPA network

0.006 mn km²

Research is needed to ensure an MPA representative network can be created and comprehensive MSP undertaken



Understanding of the South African marine domain is still scant in comparison to that of the terrestrial environment, particularly in deeper waters.

Research areas:

- Test and validate habitat classifications
- Support finer scale habitat mapping
- Support understanding of canyon ecology
- Support identification and mapping of habitat types with poor data
- Support understanding of habitat impact, condition assessments, habitat recovery and resilience
- Support MPA design including connectivity, transport pathways, dispersal distances
- Support refinement of biodiversity targets including habitat and species representation and persistence targets
- Understand and map ecological support areas including spawning areas, fresh water flow relationships, benthic-pelagic coupling
- Support line-fish stock assessment and recovery
- Understand key industrial sector spatial requirements

MPA/MSP DRuM Programme – Major milestones

1. ACEP and Phakisa Ocean Cruises
2. MPA/MSP Research, Monitoring and Capacity-building Committee
3. MPA/MSP DRuM Programme
4. MPA/MSP scoping exercise 2018-2030
5. Capacity building and transformation programme

Milestone 1 – ACEP and Phakisa Ocean Cruises

Timing: Immediate to 2018

Key funding agencies: DST and DEA

Participating agencies: HEIs, HBUs , NFs, museums, CSIR, NGOs

Budget: Total = DST (ZAR 30 mn); DEA (ZAR 20 mn– ship time)

Budget status: Budgeted (additional budget not required)

To give **immediate** effect to the Phakisa Initiative, two changes will be made to the existing DST-led marine research programme, the African Coelacanth Ecosystem Programme (ACEP), which is due to open a research call in Sept 2014.

- First, the open research call will include MPA research as a key research area.
- Second, the offshore component of the ACEP programme that utilises the Rv Algoa as the primary platform will be renamed Phakisa Ocean Cruises, a joint initiative by the DEA and DST. Three cruises on the Rv Algoa will be undertaken (2015-2017) that will specifically target MPA/MSP-associated research. Offshore research will be required to provide MSP spatial data for oceanography, benthic environment/geology, pollution and biodiversity.

Milestone 2 – MPA/MSP Research, Monitoring and Capacity-building Committee

Timing: Establishment 2014; implementation 2015 onwards

Key funding agencies: DST and DEA

Participating agencies: HEIs, HBUs, NFs, museums, CSIR, NGOs

Budget: ZAR100 000 per annum

Budget status: Funding from reprioritisation within DEA and DST (50/50)

- Limited structured co-ordination of activities has resulted in a fractured and sub-optimal MPA monitoring and research system. In addition, there is no structured approach to MSP data requirements.
- A committee and appropriate governance structure is required to ensure effective communication and systems are put in place.
- TOR for the formation of the Committee should include but not be limited to:
 - Objectives/purpose; governance structure; reporting structure; members; funding
- Key priority projects for the committee to drive
 - MPA Expansion Exploration Research Programme design and implementation
 - MPA Research and Monitoring; Research Platforms 2018 – 2030
 - Data management, repository, sharing and originators rights
 - Standard research protocols
 - MPA research, design, human capital development management

Milestone 3 – MPA/MSP DRuM Programme

Timing: Design and budgeting 2015; implementation 2016-2018 onwards

Key funding agencies: DST and DEA

Participating agencies: DST, DEA, DAFF, HEIs, HBUs, NFs, Museums, CSIR, Council for Geoscience, NGOs

Budget: ZAR 82 000 000

Budget status: *Currently not directly budgeted; would need to be sourced from Treasury*

- The DRuM Programme will undertake activities to:
 - Explore new areas of the EEZ to add to MSP planning data requirements
 - Provide key spatial data to optimise MSP
 - Identify and explore additional key areas for possible consideration as MPAs
 - Explore and undertake research on possible sensitive areas
 - Undertake research into eco-classification
 - Undertake research, exploration and monitoring that will further advance the understanding of MPA functioning and the efficacy of the South African MPA network as a whole
- The programme should involve:
 - Sector-specific DRuM, e.g., DEA-, DAFF-directed research cruises (possible vessels include Rv Algoa, RV Agulhas II and the Rv Ellen Kuzwayo)
 - Open research calls to the research community to address specific, well-defined questions (coastal and offshore)
 - Collaborative research with industry where research platforms are not available in SA
 - Collaborative research with the SA Navy Hydrography Unit and associated vessels

Milestone 4 – MPA/MSP scoping exercise 2018-2030

Timing: 2016

Key Funding Agencies: DST and DEA

Budget: Scoping ZAR 120 000

Budget status: *Currently not budgeted; would need to be sourced through reprioritisation within departments*

With the proposed expansion of the EEZ and the vast existing areas below 200m for which MPA/MSP information is scant, South Africa will need to increase its deep water research and offshore monitoring capability to unlock the Blue Economy in these areas.

- TOR will include but not be limited to understanding the following for the period 2018-2030:
 - Required research, monitoring and exploration
 - Required research platforms (ships, ROVs, gliders, crawlers, satellites)
 - Skills and human capacity
 - Interaction with industry and use of their facilities
 - Interaction and co-operation with international agencies
 - Research governance
 - Data storage
 - Optimisation of existing ships' capabilities

Milestone 5 – Capacity Building and Transformation Programme

Timing: Initiation 2015

Key funding agencies: DST and DEA

Budget: ZAR 200 000 per annum (budgeted in Milestone 1 - excluding bursaries that are budgeted in Milestones 1 and 3)

- South African MPA research and management and MSP will require individuals with the following skills/backgrounds: oceanography (chemical, physical and biological); marine biology; marine geoscience; marine **gis???**; taxonomists ecologists; eco-physiologists; eco-toxicologists; marine social sciences; marine resource economists; marine communicators.
- The marine scientific research community needs to become representative of South Africa. Transformation will be a key component of capacity building.
- Between the ACEP and Phakisa Cruises Programme (Milestone 1) and the MPA/MSP DRuM Programme (Milestone 3), over 100 postgraduate students (Hons, MSc and PhD) should be trained.

Implementation timeline

	Start date	End date
Initiative 9 – Technical report	In Lab	In Lab
Reworked – ACEP call		
Final Phakisa Lab process: Milestone 1 ACEP and Phakisa Ocean Cruises signed by DST and DEA DDG	Aug 14	Aug 14
Milestone 1 – Implementation of ACEP and Phakisa Cruises	Oct 14	Dec 17
Milestone 2 – Formation of MPA/MSP Committee	Jan 15	Apr 15
Milestone 3 – MPA/MSP DRuM Programme (design phase)	Apr 15	Dec 15
Milestone 3 – MPA/MSP DRuM Programme (implementation phase)	Jan 16	Dec 18
Milestone 4 – MPA/MSP scoping exercise 2018-2030	Jan 16	Dec 16
Milestone 5 – Capacity Building and Transformation Programme	Oct 14	Dec 18

The final focus area is on MSP and its required process

Integrated ocean governance and protection

Integrated Framework and Governance



- 1 Ministerial Committee and Secretariat to Govern Activities
- 2 Enhancement of Legislation into the ICOM 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 O&C Information System and Extending Earth Observation Capacity
- 7 National Ocean and Coastal Water Quality Monitoring Programme
- 8 Creation of a MPA Representative Network
- 9 MPA/MSP Discovery, Research and Monitoring Programme

Marine spatial planning (MSP)



- 10 MSP process

MSP will be the primary tool used to guide trade-off discussions between competing users of the same ocean space

NOT EXHAUSTIVE

Why is this initiative important?

10

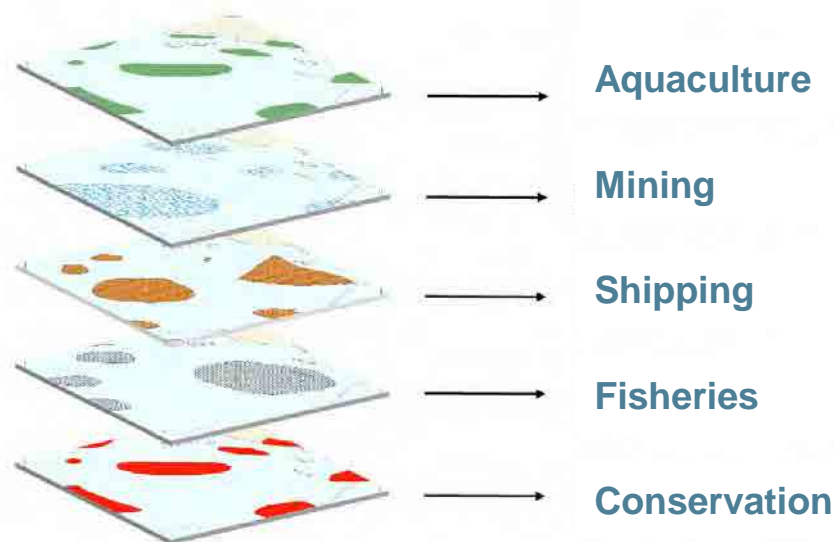
There is no overall system to guide the development, implementation, monitoring and refinement of national and regional (sub-national) MSP frameworks and sub-regional MSP management plans in South Africa. This can lead to conflict, unsustainable use of ocean resources and failing to capitalise on development opportunities

MSP



10

MSP process



10: MSP process

Case for change:

There is no overall system to guide the development, implementation, monitoring and refinement of national and regional (sub-national) MSP frameworks and sub-regional MSP management plans in South Africa. This can lead to conflict, unsustainable use of ocean resources and failing to capitalise on development opportunities.

Initiative details:

- The implementation leader will establish a National RDM & PL Working Group and give overall guidance for the development of MSP frameworks and MSP plans for South African ocean and coastal environment.
- The implementation leader must prioritise workshop or capacity training for members of the group to enable in-depth understanding of the process for developing the frameworks and plans.
- The National Research, Database Management and Planning Tools Working Group will:
 - Guide the development, implementation, monitoring and refinement of the frameworks and plans in South Africa
 - Agree on the best suitable model/process to develop national and regional (sub-national) frameworks and sub-regional plans on a prioritised basis
 - Collate all existing information and identify knowledge products and define what gaps exist nationally (by March 2015).
 - Develop principles, goals, objectives and strategies for national and regional (sub-national) frameworks and sub-regional plans.
- The national and regional (sub-national framework) reviewed by the National RDM & PL Working Group will be submitted to the Secretariat to publish for stakeholder comment
- Final national, regional (sub-national) frameworks and sub-regional plans will be submitted to the Secretariat, FOSAD Sub-committee, Oceans Inter-ministerial Committee and Cabinet for approval.

System to guide the development, implementation, monitoring and refinement of national and regional (sub-national) MSP frameworks and sub-regional MSP plans in South Africa . The operational and the national frameworks to include the entire EEZ by 2025 and extended continental shelf by 2030.

Implementing agency: DEA/Secretariat

Key stakeholders identified

- DST; DEA; DMR; DOT; DOE; DAFF; DOD (Navy); Provinces

Required resources

Investment: (ZAR 6 mn for the national MSPF, ZAR 7-8mn for regional (sub-national frameworks and R8-R9mn for detailed sub regional plans)

Implementation timeframe

- **Start date:** Secretariat Appointed by November 2014;
- Implementation Leader for the National Research, Database Management and Planning Tools (RDMandPL) appointed by Mar 2015 and Working Group established
- **End Date:** National framework developed and approved by Dec 2015
- Regional (sub-national) framework developed and approved by Dec 2016.
- Sub-regional plan developed and approved by Mar 2018

Key milestones

- 2016: National MSP framework developed
- 2017: Regional (sub-national) framework developed
- 2018: Sub-regional plan developed

MSP considerations – Coastal vulnerability background

- Different places along the coastal ocean and coastline experience physical drivers differently
- Coastal vulnerability also depends on the physical and biological characteristics of the coast (e.g., presence dunes, beach slope, vegetation)
- Human modifications can increase or decrease this vulnerability



MSP considerations – Coastal vulnerability drivers

- The main ocean drivers of physical vulnerability of the coast are:
 - Waves
 - Wind
 - Currents
- These drivers/hazards need to be seen in the context of climate change, which is bringing increased storminess and higher sea-levels



Tools for trade-offs in the ocean environment – High-level guidelines

PRELIMINARY

Guidelines on overall objectives

- Unlock ocean economy
- Provide an appropriate level of environmental protection
- Ensure that international obligations are met
- Do not exceed thresholds

Guidelines on how to quantify achievement of overall objectives (informing the Socio-Economic Test)

- Job creation by 2030
- Environmental risk by 2030
- Location impact on ecosystem integrity and maximum environmental risk profile of that location
- Youth employment addressed
- Mitigation measures to address impact on environment and community in place
- Investment in building resilience in environment and community
- National development goals
- Skills development mandate
- Small businesses and cooperatives developed
- B-BBEE contribution
- Regional economic integration supported

Tools for trade-offs in the ocean environment – Activity impact on habitats (1/5)

PRELIMINARY

The calculation of impact weights

Pressures	Lagoon	Mixed shore	Rocky coast	Sandy coast	Coastal communities	Island associated	Rocky inshore	Unconsolidated inshore	Cayman	Rocky offshore	Seamount	Unconsolidated offshore	Offshore pelagic
Inshore demersal trawl	0.0	0.0	0.0	0.0	0.0	15	0.0	0.0	10	10	0.0	7.5	4
Offshore demersal trawl	0.0	0.0	0.0	0.0	0.0	10	0.0	0.0	10	10	0.0	8.2	4
Demersal longline	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	5	0	0.0	4	4
Small pelagics	0.0	0.0	0.0	0.0	0.0	3	3.5	3.5	3.5	3.5	0.0	3.5	0
Midwater trawl	0.0	0.0	0.0	0.0	0.0	4	0.0	0.0	4	4	0.0	4	0
Crustacean trawl	0.0	0.0	0.0	0.0	0.0	0.0	10	0	15	10	0.0	8	4.5
South coast rock lobster trap fishery	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5	5	0.0	2.5	0.0
West coast rock lobster fishery	0.0	0	0	0.0	0.0	0	0	0.0	0.0	0	0.0	0.0	0.0
Squid fishery	0.0	1	1	1	0.0	2.5	2	3	2	2	0.0	1	2.5
Litterfishing	4.5	0.5	0.5	5	0	0	0	5	0	0	0.0	5	5.7
Tuna pole fishery	0.0	0.0	0.0	0.0	0.0	5	0.0	0.0	2.5	2.5	0.0	2.5	2
Shark fishery	0.0	7.5	7.5	7.5	0	0	0	0	0	0	0.0	0	0
Large pelagic fishery	0.0	0.0	0.0	0.0	0.0	7	0.0	0.0	0	0	0	0.5	7
Kelp harvesting	0.0	5	0	5	0.0	0.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0

- A guided group **consensus method** was used in the scoring process (rather than an individual survey method)
- Impact was aggregated into **"functional impact"** and **"recovery"** categories
- As there were **136 unique habitat types (ecosystems)** and **27 different anthropogenic drivers of ecosystem change**, for the purposes of the preparation of the impact weights, the **habitat types were grouped into 13 categories** based on similarity of habitat type and their likely responses to pressures
- However, where the evaluation process identified problems caused by the lumping of categories (e.g., sub-tropical reefs in shallow versus deeper water), these were then split into separate evaluation categories
- The impact weights were then calculated by an **equal weighted average of the functional impact and recovery scores**

Tools for trade-offs in the ocean environment – Activity impact on habitats (2/5)

PRELIMINARY

Component of weighs: Functional impact

- Functional impact was a broad evaluation of the **degree to which the natural state of any given ecosystem** (including component species, community structure, physical habitat structure and ecosystem function) **is impacted by a specific activity**
- Experts **evaluated on a scale of 0-10 the known level of impact of each pressure** on the overall state of a set of broad habitat types
 - Pressures were designated as "not applicable" if it was known that any specific pressure type does not occur in that habitat in South Africa
 - **1 = Minor impact** limited to a specific species with minimal impact on overall system functioning
 - **2 = Minor impact limited to a few (<10) specific species** with minimal impact on overall system functioning
 - **5 = Moderate impact** on natural state of habitat, including impacts on a range of species and some impacts on trophic structure and may include localised physical habitat damage
 - **10 = Extremely heavy impact** on the natural state of a habitat (including major changes in trophic structure and/or **damage to physical structure**)
- Values should be interpreted as a relative evaluation of the impact of different pressure types on a habitat type and of the relative impact of the same level of a specific pressure type on different habitat types.

Tools for trade-offs in the ocean environment – Activity impact on habitats (3/5)

PRELIMINARY

Component of weighs: Recovery scores

- Recovery score is a **measure of the time required for the habitat** (including affected species, physical habitat structure, and community trophic structure) **to return to a natural state following cessation of disturbance by a given activity**
- Scores represent on a **scale of 0-10 the anticipated time taken for recovery** of a habitat once a specific pressure type has been removed from a site
 - **"Not applicable"** indicates that the specific pressure type is not known to occur in that habitat type
 - **1 = Very quick recovery** (less than 1 year)
 - **2 = Quick recovery** (more than 1 year but less than 2 years)
 - **5 = Average recovery time** (more than 2 years but less than 5 years)
 - **8 = Slow recovery time** (more than 5 years but less than 10 years)
 - **10 = Very slow recovery or permanent damage** (e.g., long-term irreversible changes in habitat or trophic structure)
- Values should be interpreted as a relative evaluation of the recovery time of a habitat or ecosystem after being subject to a pressure and of the relative recovery time between different habitat types after the same level of a specific pressure type has been experienced.

Tools for trade-offs in the ocean environment – Activity impact on habitats (4/5)¹

PRELIMINARY

Pressures	Lagoon	Mixed shore	Rocky coast	Sandy coast	Coral communities	Island-associated	Rocky inshore	Unconsolidated inshore	Canyons	Rocky offshore	Seamounts	Unconsolidated offshore	Offshore pelagic
Inshore demersal trawl	n/a	n/a	n/a	n/a	n/a	10	n/a	n/a	10	10	n/a	7.5	4
Offshore demersal trawl	n/a	n/a	n/a	n/a	n/a	10	n/a	n/a	10	10	n/a	6.5	4
Demersal longline	n/a	n/a	n/a	n/a	n/a	6	n/a	n/a	6	6	n/a	4	4
Small pelagics	n/a	n/a	n/a	n/a	n/a	8	3.5	3.5	3.5	3.5	n/a	3.5	6
Midwater trawl	n/a	n/a	n/a	n/a	n/a	4	n/a	n/a	4	4	n/a	4	4
Crustacean trawl	n/a	n/a	n/a	n/a	n/a	n/a	10	8	10	10	n/a	8	4.5
South coast rock lobster trap fishery	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	5	5	n/a	3.5	n/a
West coast rock lobster fishery	n/a	6	6	n/a	n/a	6	6	n/a	n/a	6	n/a	n/a	n/a
Squid fishery	n/a	1	1	1	n/a	2.5	2	1	2	2	n/a	1	2.5
Linefishing	4.5	6.5	6.5	5	9	9	9	5	9	9	n/a	5	3.5
Tuna pole fishery	n/a	n/a	n/a	n/a	n/a	3	n/a	n/a	2.5	2.5	n/a	2.5	3
Shark fisheries	n/a	7.5	7.5	7.5	8	8	8	8	8	8	n/a	8	9
Large pelagic fishery	n/a	n/a	n/a	n/a	n/a	7	n/a	n/a	6	6	6	4.5	7
Kelp harvesting	n/a	5	3	5	n/a	6.5	6.5	n/a	n/a	n/a	n/a	n/a	n/a

¹ Red reflects the pressures with the greatest impact per group of habitat types; orange reflects intermediate impact; green reflects the lowest expected impact

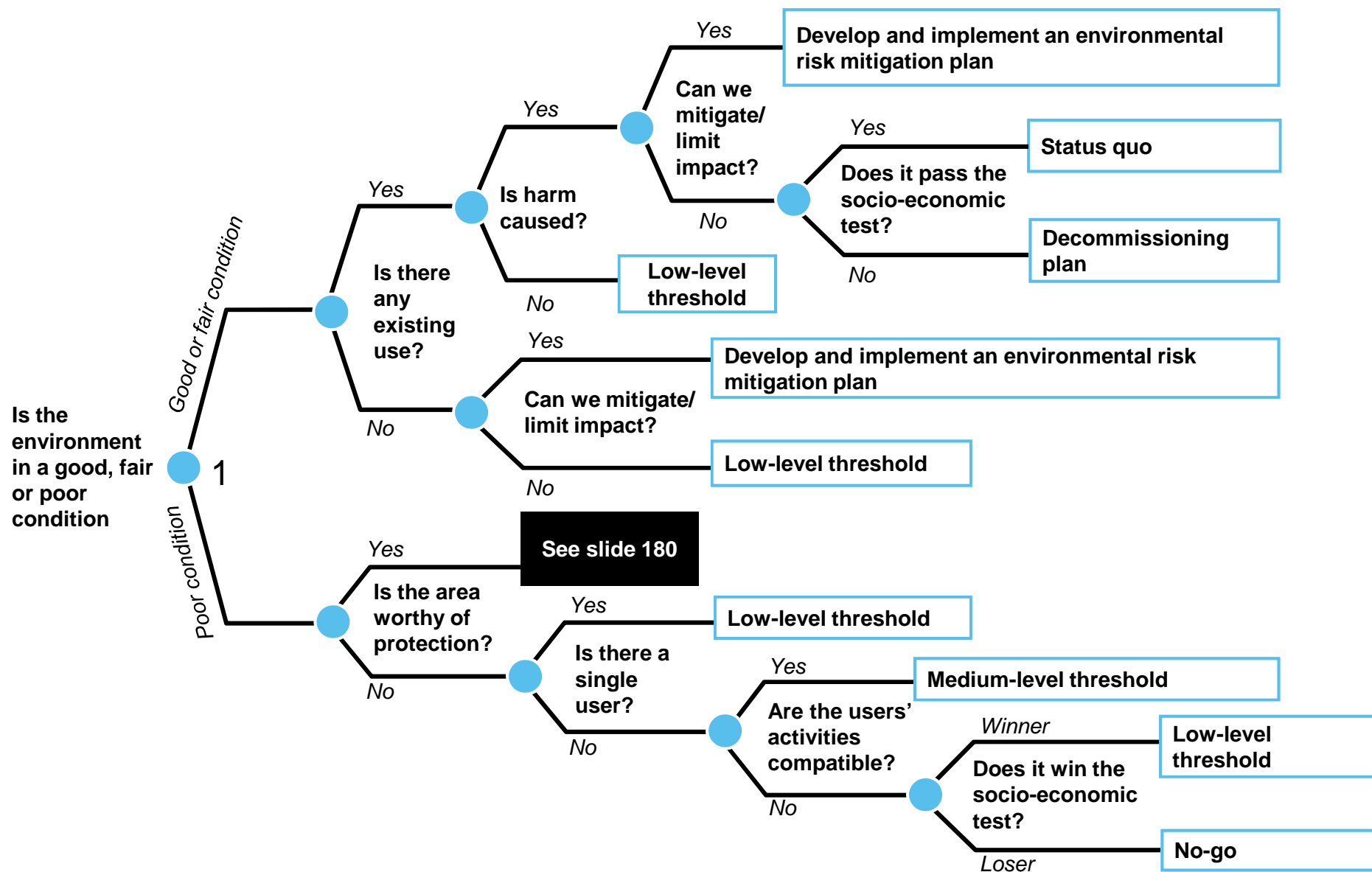
Tools for trade-offs in the ocean environment – Activity impact on habitats (5/5)¹

PRELIMINARY

Pressures	Lagoon	Mixed shore	Rocky coast	Sandy coast	Coral communities	Island-associated	Rocky inshore	Unconsolidated inshore	Canyons	Rocky offshore	Seamounts	Unconsolidated offshore	Offshore pelagic
Shark control program	n/a	6.5	6.5	6.5	7.5	n/a	7.5	7.5	n/a	7.5	n/a	7.5	8.5
Mariculture	8	3	3	3	n/a	4	3	4	n/a	3	n/a	4	3
Alien Invasive Species	7.5	8	8	3.5	n/a	7.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Petroleum activities	n/a	n/a	n/a	n/a	n/a	n/a	5.5	4.5	5.5	5.5	n/a	4.5	2
Shipping	5.5	1.5	1.5	1.5	1	2	1	1	1	1	1.5	1	2.5
Coastal development	10	10	9	10	6.5	6	5	4.5	n/a	5	n/a	4.5	3
Waste water discharge	5.5	5	5	4	6.5	6.5	6.5	5	n/a	6.5	n/a	5	2.5
Freshwater flow reduction	5	6	4.5	6	4.5	4.5	4.5	4.5	4.5	4.5	n/a	4.5	4.5
Recreational Boat Fishing	4.5	6.5	6.5	4.5	6.5	7.5	6.5	4.5	6.5	6.5	n/a	4.5	3
Recreational shore fishing	4.5	6.5	6.5	4.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Subsistence harvesting	2	8	8	2	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Mining (see also petroleum activities)	n/a	8	7	8	n/a	n/a	7.5	6.5	n/a	7.5	n/a	6.5	2
Coastal Disturbance	2.5	3.5	3.5	2.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

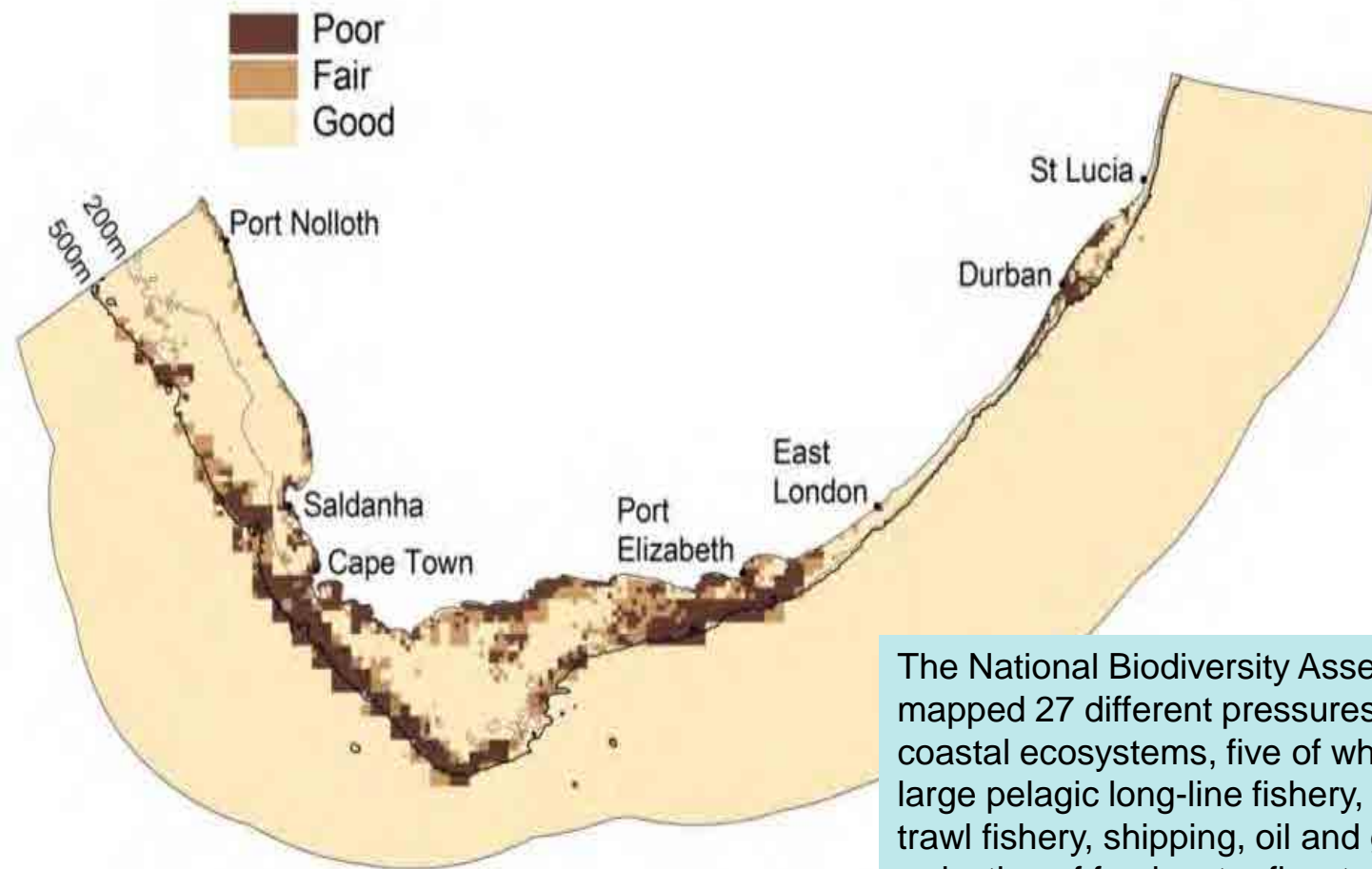
¹ Red reflects the pressures with the greatest impact per group of habitat types; orange reflects intermediate impact; green reflects the lowest expected impact

Tools for trade-offs in the ocean environment – Decision trees (1/2)



1. Refer to p. 179 for the National Biodiversity Assessment of the condition

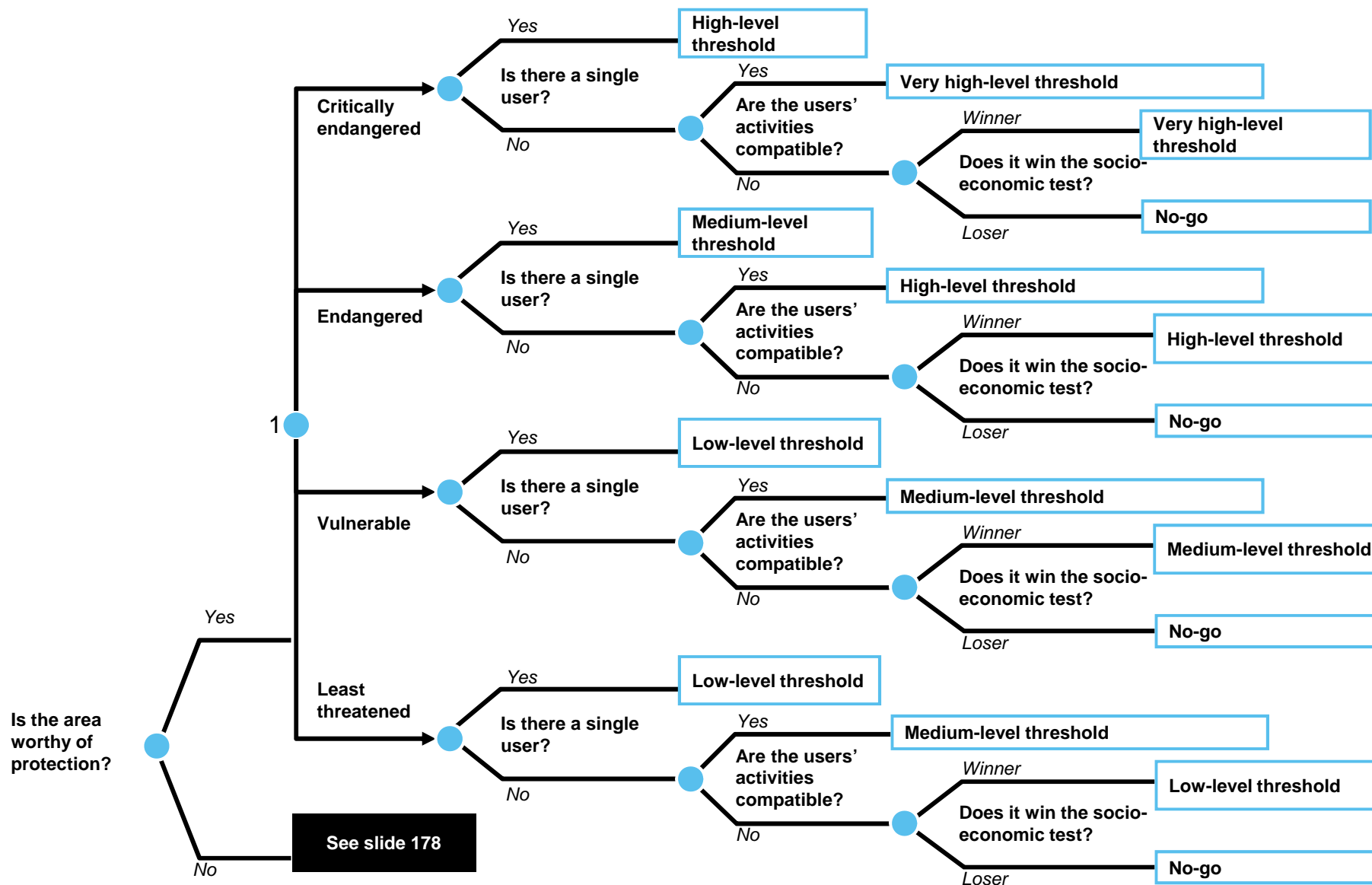
The environment status can be based on the National Biodiversity Assessment 2011



The National Biodiversity Assessment (NBA 2011) mapped 27 different pressures on marine and coastal ecosystems, five of which are shown here: large pelagic long-line fishery, offshore demersal trawl fishery, shipping, oil and gas wells, and reduction of freshwater flow to the coastal and marine environment. Fishing is the biggest pressure on marine ecosystems.

SOURCE: NBA citation: Driver A., Sink, K.J., Nel, J.N., Holness, S., Van Niekerk, L., Daniels, F., Madjjet, P.A., Jonas, Z. and Maze, K. 2012. National Biodiversity Assessment 2011: An assessment of South Africa's biodiversity and ecosystems. Synthesis Report. South African National Biodiversity Institute and Department of Environmental Affairs, Pretoria.

Tools for trade-offs in the ocean environment – Decision trees (2/2)



1 Refer to appendix for habitat type and threat classification

Coastal and benthic systems (1/7)

Category	Broad type	Bio-geog.	Habitat name	Status ¹
Coastal, inshore, islands and lagoons	Harbour	Harbour	Harbour	CR
	Inshore reefs	Agulhas	Agulhas Inshore Hard Grounds	VU
			Agulhas Inshore Reef	CR
		Delagoa	Delagoa Inshore Reef	LT
		Namaqua	Namaqua Inshore Hard Grounds	CR
			Namaqua Inshore Reef	CR
		Natal	Natal Inshore Reef	EN
		Southwestern Cape	Southwestern Cape Inshore Hard Grounds	CR
			Southwestern Cape Inshore Reef	CR
	Island	Agulhas	Agulhas Island	VU
		Namaqua	Namaqua Island	CR
		Southwestern Cape	Southwestern Cape Island	EN
	Lagoon	Southwestern Cape	Southwestern Cape Lagoon	VU
	Mixed coast	Agulhas	Agulhas Mixed Shore	VU
		Delagoa	Delagoa Mixed Shore	LT
		Namaqua	Namaqua Mixed Shore	EN
		Natal	Natal Mixed Shore	VU
		Southwestern Cape	Southwestern Cape Mixed Shore	VU

1. CR: Critically endangered; EN: Endangered; VU: Vulnerable; LT: Least threatened

Coastal and benthic systems (2/7)

Category	Broad type	Bio-geog.	Habitat name	Status ¹
Coastal, inshore, islands and lagoons	Rocky coast	Agulhas	Agulhas Boulder Shore	LT
			Agulhas Exposed Rocky Coast	VU
			Agulhas Sheltered Rocky Coast	CR
			Agulhas Very Exposed Rocky Coast	VU
		Delagoa	Delagoa Very Exposed Rocky Coast	LT
		Namaqua	Namaqua Boulder Shore	CR
			Namaqua Exposed Rocky Coast	LT
			Namaqua Sheltered Rocky Coast	CR
			Namaqua Very Exposed Rocky Coast	VU
		Natal	Natal Boulder Shore	CR
			Natal Exposed Rocky Coast	LT
			Natal Very Exposed Rocky Coast	LT
		Southwestern Cape	Southwestern Cape Boulder Shore	CR
			Southwestern Cape Exposed Rocky Coast	EN
			Southwestern Cape Sheltered Rocky Coast	CR
			Southwestern Cape Very Exposed Rocky Coast	CR
	Sandy coast	Agulhas	Agulhas Dissipative Sandy Coast	VU
			Agulhas Dissipative-Intermediate Sandy Coast	LT
			Agulhas Estuarine Shore	LT
			Agulhas Intermediate Sandy Coast	LT
			Agulhas Reflective Sandy Coast	LT
		Natal	Natal Estuarine Shore	LT

1. CR: Critically endangered; EN: Endangered; VU: Vulnerable; LT: Least threatened

Coastal and benthic systems (3/7)

Category	Broad type	Bio-geog.	Habitat name	Status ¹
Coastal, inshore, islands and lagoons total	Sandy coast	Natal-Delagoa	Natal-Delagoa Dissipative Sandy Coast	LT
			Natal-Delagoa Dissipative-Intermediate Sandy Coast	LT
			Natal-Delagoa Estuarine Shore	LT
			Natal-Delagoa Intermediate Sandy Coast	VU
			Natal-Delagoa Reflective Sandy Coast	VU
		Southern Benguela	Southern Benguela Dissipative Sandy Coast	LT
			Southern Benguela Dissipative-Intermediate Sandy Coast	LT
			Southern Benguela Estuarine Shore	LT
			Southern Benguela Intermediate Sandy Coast	LT
			Southern Benguela Reflective Sandy Coast	LT
	Unconsolidated inshore	Agulhas	Agulhas Inshore Gravel	EN
			Agulhas Sandy Inshore	VU
		Delagoa	Delagoa Sandy Inshore	LT
		Namaqua	Namaqua Muddy Inshore	VU
			Namaqua Sandy Inshore	CR
		Natal	Natal Inshore Gravel	LT
			Natal Muddy Inshore	EN
			Natal Sandy Inshore	VU
		Southwestern Cape	Southwestern Cape Sandy Inshore	VU

1. CR: Critically endangered; EN: Endangered; VU: Vulnerable; LT: Least threatened

Coastal and benthic systems (4/7)

Category	Broad type	Bio-geog.	Habitat name	Status ¹
Coastal, inshore, islands and lagoons total	...	...	...	...
Offshore (-30m to EEZ boundary)	Rocky shelf	Agulhas	Agulhas Hard Inner Shelf	EN
			Agulhas Hard Outer Shelf	VU
			Agulhas Hard Shelf Edge	VU
			Agulhas Inner Shelf Reef	VU
			Agulhas Outer Shelf Reef	LT
		Delagoa	Delagoa Shelf Reef	LT
		Namaqua	Namaqua Hard Inner Shelf	LT
			Namaqua Inner Shelf Reef	CR
		Natal	Natal Shelf Reef	VU
		Southern Benguela	Southern Benguela Carbonate Mound	LT
			Southern Benguela Hard Outer Shelf	VU
			Southern Benguela Outer Shelf Reef	EN
		Southwestern Cape	Southwestern Cape Hard Inner Shelf	EN
	Rocky shelf edge	Agulhas	Agulhas Canyon	CR
			Agulhas Shelf Edge Reef	LT

1. CR: Critically endangered; EN: Endangered; VU: Vulnerable; LT: Least threatened

Coastal and benthic systems (5/7)

Category	Broad type	Bio-geog.	Habitat name	Status ¹
Offshore (-30m to EEZ boundary)	Rocky shelf edge	Delagoa	Delagoa Canyon	LT
			Delagoa Shelf Edge Reef	LT
		Natal	Natal Canyon	VU
			Natal Shelf Edge Reef	LT
		Southern Benguela	Southern Benguela Canyon	CR
	Seamounts		Southern Benguela Hard Shelf Edge	CR
		Southeast Atlantic	Southeast Atlantic Seamounts	LT
		Southwest Indian	Southwest Indian Seamounts	LT
	Unconsolidated deep sea	South Atlantic	South Atlantic Abyss	LT
			South Atlantic Abyss With Ferro-Manganese Deposits	LT
			South Atlantic Lower Bathyal	LT
			South Atlantic Upper Bathyal	LT
		Southwest Indian	Southwest Indian Abyss	LT
			Southwest Indian Abyss With Ferro-Manganese Deposits	LT
			Southwest Indian Lower Bathyal	LT
			Southwest Indian Lower Bathyal With Ferro-Manganese Deposits	LT
			Southwest Indian Upper Bathyal	LT

1. CR: Critically endangered; EN: Endangered; VU: Vulnerable; LT: Least threatened

Coastal and benthic systems (6/7)

Category	Broad type	Bio-geog.	Habitat name	Status ¹
Offshore (-30m to EEZ boundary)	Unconsolidated shelf	Agulhas	Agulhas Gravel Inner Shelf	LT
			Agulhas Gravel Outer Shelf	VU
			Agulhas Mixed Sediment Inner Shelf	LT
			Agulhas Mixed Sediment Outer Shelf	CR
			Agulhas Muddy Inner Shelf	CR
			Agulhas Muddy Outer Shelf	VU
			Agulhas Sandy Inner Shelf	VU
			Agulhas Sandy Outer Shelf	LT
		Delagoa	Delagoa Sandy Shelf	LT
		Namaqua	Namaqua Muddy Inner Shelf	LT
			Namaqua Sandy Inner Shelf	LT
		Natal	Natal Gravel Shelf	LT
			Natal Mixed Sediment Shelf	LT
			Natal Muddy Shelf	EN
			Natal Sandy Shelf	VU
		Southern Benguela	Southern Benguela Gravel Outer Shelf	CR
			Southern Benguela Muddy Outer Shelf	LT
			Southern Benguela Sandy Outer Shelf	LT
		Southwestern Cape	Southwestern Cape Sandy Inner Shelf	LT

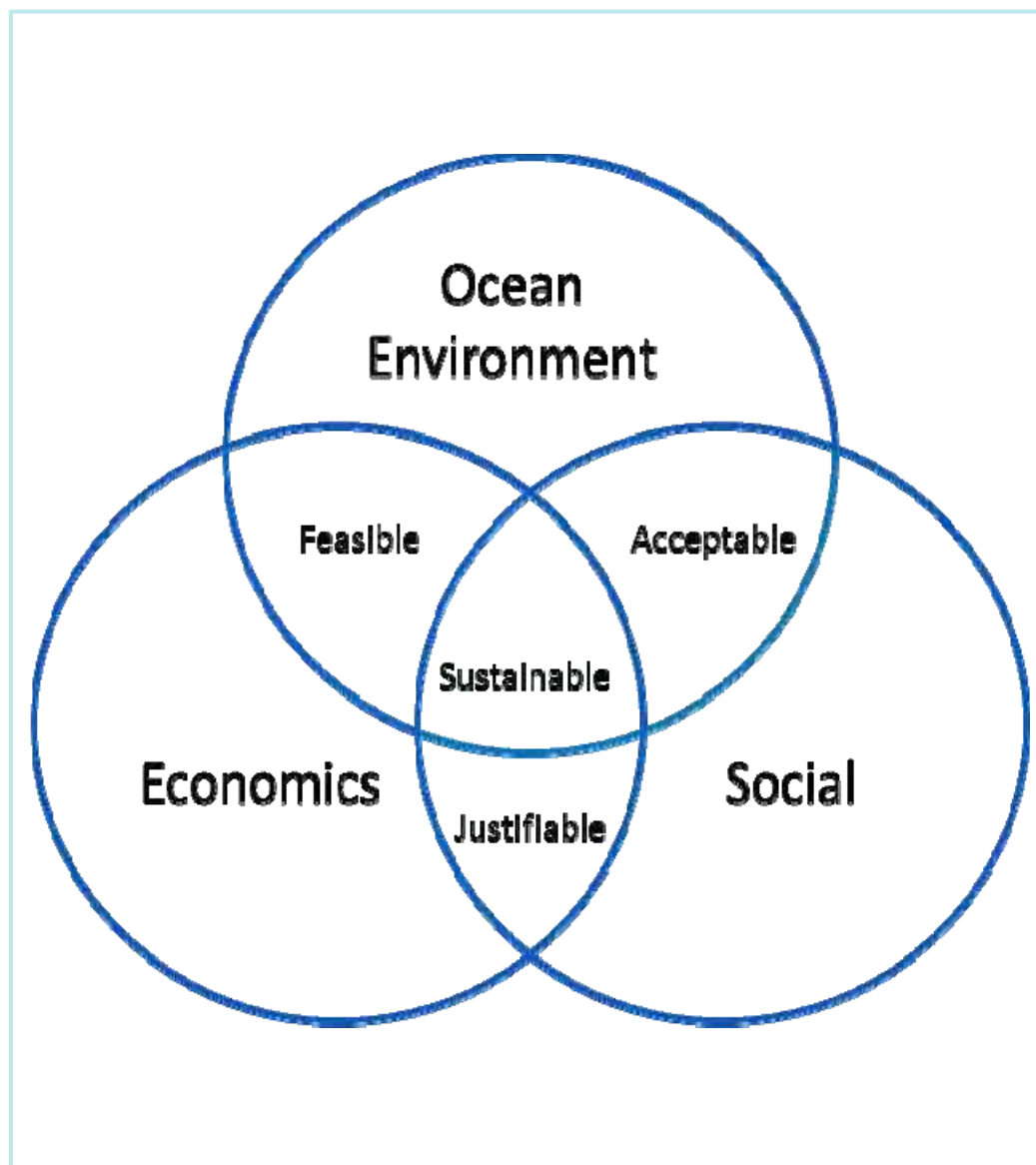
1. CR: Critically endangered; EN: Endangered; VU: Vulnerable; LT: Least threatened

Coastal and benthic systems (7/7)

Category	Broad type	Bio-geog.	Habitat name	Status ¹
Offshore (-30m to EEZ boundary)	Unconsolidated shelf edge	Agulhas	Agulhas Gravel Shelf Edge	LT
			Agulhas Muddy Shelf Edge	VU
			Agulhas Sandy Shelf Edge	VU
		Delagoa	Delagoa Sandy Shelf Edge	LT
		Natal	Natal Gravel Shelf Edge	LT
			Natal Mixed Sediment Shelf Edge	LT
			Natal Muddy Shelf Edge	LT
			Natal Sandy Shelf Edge	LT
		Southern Benguela	Southern Benguela Gravel Shelf Edge	CR
			Southern Benguela Muddy Shelf Edge	CR
			Southern Benguela Sandy Shelf Edge	VU
Offshore (-30m to EEZ boundary) Total	...	...	...	...

1. CR: Critically endangered; EN: Endangered; VU: Vulnerable; LT: Least threatened

The brief for the creation of the socio-economic test



The marine environment is characterised by conflict as a large number of users compete for limited resources and space. The question for governance is how to deal with these competing users and find a balance that allocates users a space. The ultimate goal is the formation of an MSP that will define areas. The question remains as to how ocean governance will address the challenges of decision-making in the absence of an MSP.

To address this problem, a mechanism to resolve conflict over ocean resources needs to be created to strike a satisfactory balance between competing interests. The socio-economic test seeks to reconcile competing interests and conflict at all levels – institutional, social, economic and all spatial scales. This mechanism can be used as an interim measure and an informant in the development of the MSP.

This test must be created to obtain an agreed process and mechanism for the resolution of conflict over resources and space and needs to take social, economic and environmental factors into consideration.

SOURCE: A Handbook for Measuring the Progress and Outcomes of Integrated Coastal and Ocean Management. IOC Manuals and Guides, 46; ICAM Dossier, 2. Paris, UNESCO, 2006 (English). Available online at <http://unesdoc.unesco.org/images/0014/001473/147313e.pdf>

Economic factors

- Economy is one of the most important factors driving almost all uses of the marine environment. When considering economic factors in the marine space, the direct economic benefits and the costs associated with sustaining livelihoods and the generation of wealth must be considered. The socio-economic test must enable a process flow for rational decision-making on economic importance versus other factors.
- Historically, this has not been possible due to lack of information on the economic value of the goods and services provided by marine ecosystems.
- Integrated ocean governance should also provide an economic basis for comparison of the economic value of one activity relative to another.
- For example, traditional use is given preference over new or non-traditional use. This is often done without informed consideration of the economic contribution of one activity in relation to another. The socio-economic test should provide the basis for such comparisons, thereby facilitating what is “best use” decision-making for a geographic region. This will allow economic diversification and strengthen South Africa against the risk of economic collapse. It can also be important in reducing ecological impact.
- The socio-economic test must provide information on the economic costs associated with a particular activity. While some of these are indirect and difficult to quantify, e.g., the opportunity costs of choosing one use over another, others are easily quantifiable.

SOURCE: A Handbook for Measuring the Progress and Outcomes of Integrated Coastal and Ocean Management. IOC Manuals and Guides, 46; ICAM Dossier, 2. Paris, UNESCO, 2006 (English). Available online at <http://unesdoc.unesco.org/images/0014/001473/147313e.pdf>

Economic factors

- Total economic value: includes both gross value and net value and should be determined for all marine-related activities in the ocean.
- Total employment: includes both the economic value of employment and the number of people employed
- Direct investment: includes private and public sector investment and direct foreign investment
- Infrastructure development

SOURCE: A Handbook for Measuring the Progress and Outcomes of Integrated Coastal and Ocean Management. IOC Manuals and Guides, 46; ICAM Dossier, 2. Paris, UNESCO, 2006 (English). Available online at <http://unesdoc.unesco.org/images/0014/001473/147313e.pdf>

Environmental factors

- A healthy and productive environment is a fundamental aspect of the concept of sustainable development, and plays a central role in ocean governance. Development of marine areas must be undertaken in an environmentally sustainable manner, ensuring that resources remain viable and that the interaction between biophysical dynamics and human uses of the environment be understood and managed in an integrated manner.
- There is also a direct link between the environmental dimension and public health and safety, particularly with respect to the introduction of pollutants to the marine environment, which can affect water quality and result in human impact, such as the consumption of contaminated seafood.
- Environmental indicators that must be considered include:
 - Minimisation of human impact, such as habitat loss/fragmentation (especially in biologically sensitive and productive areas) due to unauthorised use of the coastal and marine environment
 - Maintenance of natural ecosystems
 - Physical alteration of the benthic environment (e.g., through dredging or dumping, bottom-trawling or other benthic impact fishing practices) should be done in consideration of the cost-benefit analysis that includes the long-term and secondary impacts directly or indirectly associated with the disturbance

Social factors

When taking decisions in the ocean space, it is important to take the needs of communities and individuals into consideration, including cultural heritage and traditional knowledge.

Natural systems hold intrinsic values that can only be articulated in their contribution to social, cultural, psychological and aesthetic needs.

It is only through this recognition that a complete assessment can be made of their value to society.

Socio-economic considerations must ensure that population dynamics and culture values are considered and their implications linked to our understanding of their potential impact on coastal and ocean ecosystems.

Socio-economic factors

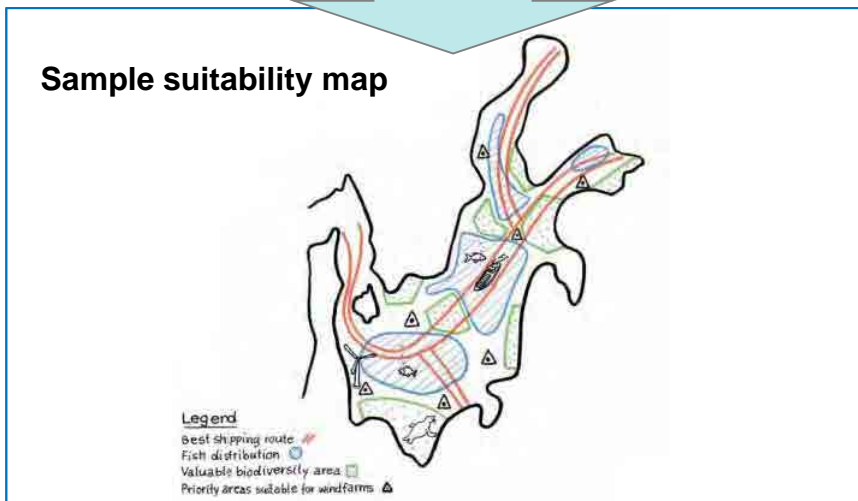
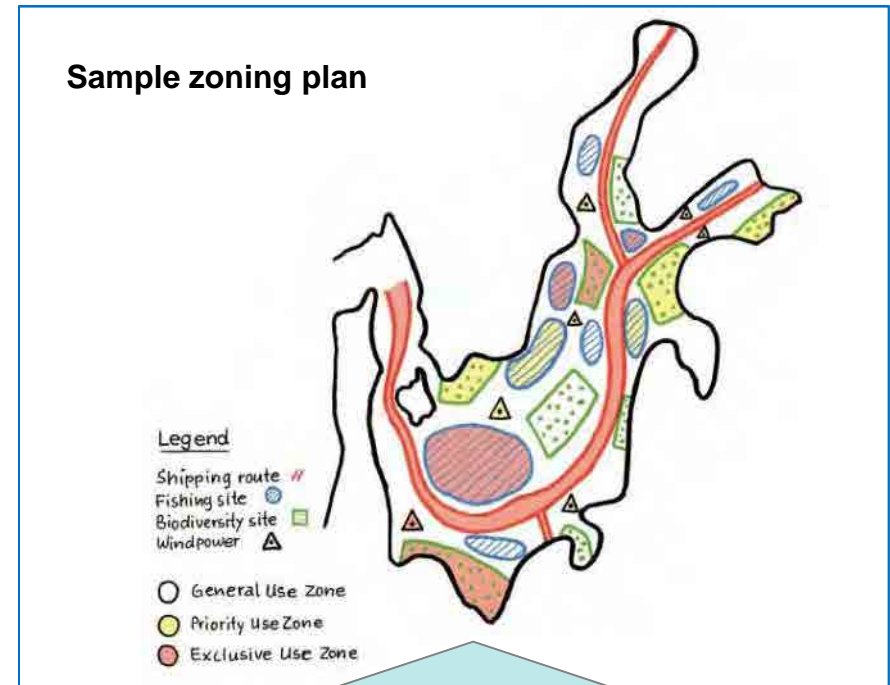
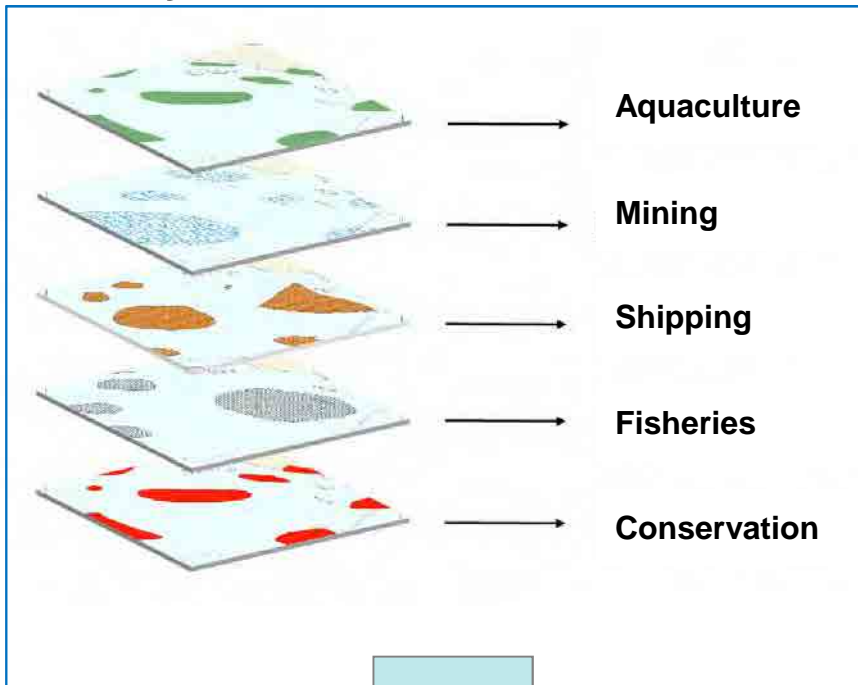
- Socio-economic factors are a good indicator of the human activities in ocean governance, which include food security, finance, human health, livelihoods and other benefits. Socio-economic factors will allow ocean governance managers to:
 - Evaluate and monitor the impact of decisions on stakeholders
 - Identify stakeholder concerns and interests and incorporate them into ocean governance
 - Demonstrate the socio-economic value of ocean resources, including the direct and indirect societal costs and benefits
 - Assess the cost benefits of using ocean areas and resources (i.e., the benefits from taking an action); and track long-term and short-term costs and benefits
- The basis of the socio-economic test must seek to attain sustainable development, striking a balance between economic, social and environmental considerations. It is the role of ocean governance to weigh up these factors to decide on the best way forward for ocean governance.
- It may not always be the case that sustainability is attainable, especially in the instance of a non-renewable resource being exploited. In these instances it will be the role of ocean governance to decide if the exploitation is justifiable, feasible or acceptable and, based on these considerations, to make the decision on whether to exploit a resource or not.

Tools for trade-offs in the ocean environment – Defining goals and objectives for MSP

- Specifying National MSP Framework (NMSPF) principles, goals, objectives and strategies is essential to promoting broader understanding and perspective of the oceans and the need for the framework.
- The NMSPF must be focused and tailored towards achieving results on the MSP efforts; three Regional (sub-national) MSP Frameworks (RMSPFs) and Sub-regional MS Plans (SbMSPs) will follow.
- Goals are high-level statements of the direction and outcomes to be achieved. For example:
 - Protect fish spawning grounds;
 - Reduce and resolve conflict between human activities and nature;
 - Ensure economic return from the use of sea space.
- Goals can be broken down into a number of objectives that, if achieved will help realise the goals. Objectives are much more focused and should be **SMART** (Specific, Measurable, Assignable, Realistic, Time-Related). For example:
 - Protect 50% of commercial fish spawning grounds by 2025;
 - Realign shipping routes in South Africa's territorial sea to avoid 75% of primary whale migration routes by 2030
- It is likely that the production of a preliminary list of goals and objectives will largely be a desktop exercise based on international examples and existing national and international policies that apply to South Africa. This list will form the basis for further stakeholder consultation and refinement.

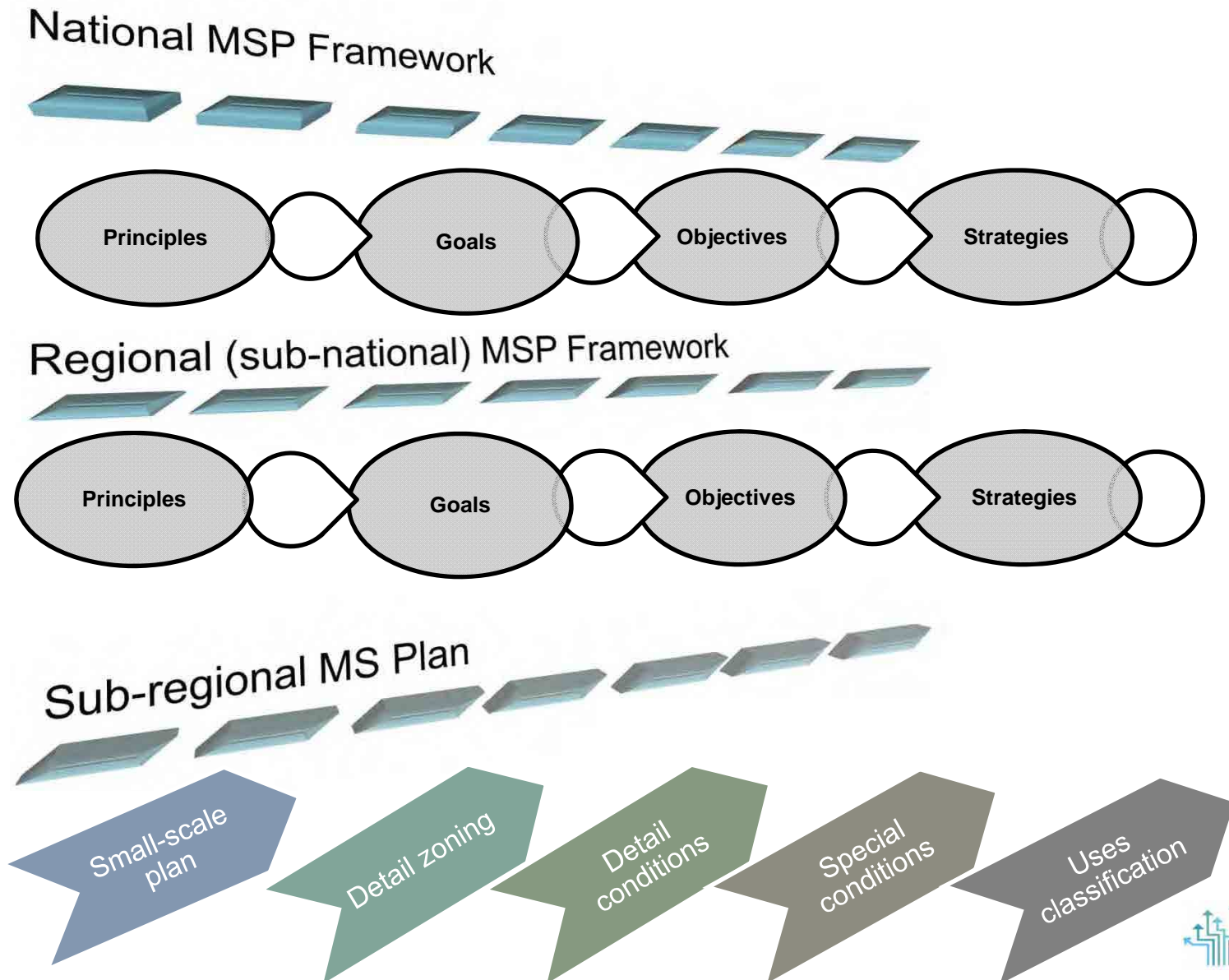
INITIATIVES

The MSP process aims to consider all the competing users and function as the key trade-off tool



SOURCE: WWF Germany; MSP in the Baltic Sea

The MSP plan process will start at the national level and become more detailed at the regional (sub-national) and sub-regional levels.



MSP will be a step-by-step process

Step 1:

- Appoint the Oceans Secretariat

Step 2:

- Establish interim research, database management and planning tools WG

Step 3:

- Appoint formal research, database management and planning tools WG

Step 4:

- Conduct training and capacity building workshop for the development of NMSPF

Step 5:

- Agree on the best suitable model/process for the development of NMSPF

Step 6:

- Develop the National MSP Framework

Step 7:

- Develop the Regional (Sub-national) MSP Framework

Step 8:

- Develop the Sub-regional MS Plan

Step 9:

- Develop implementation plans

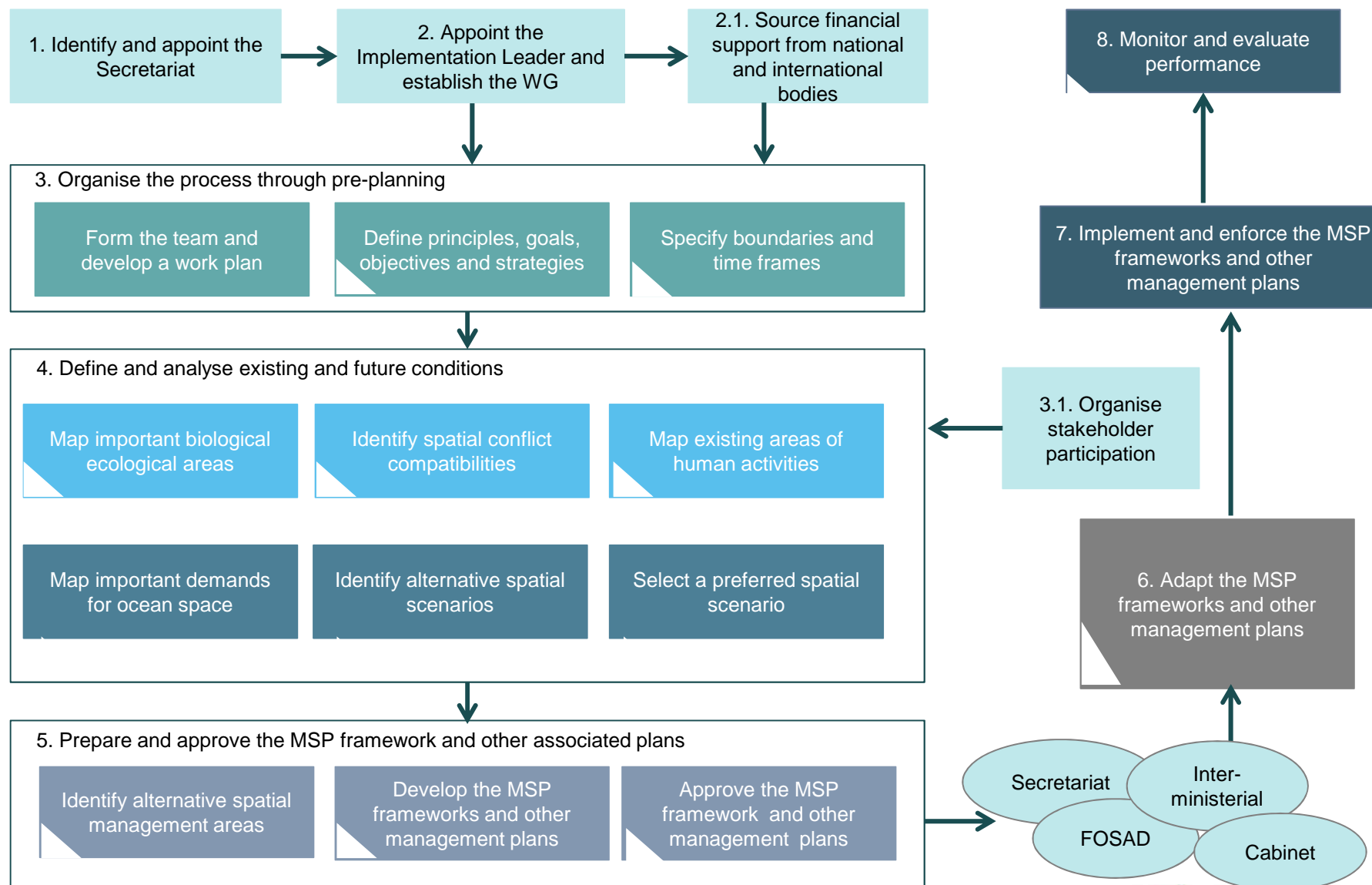
Step 10:

- Develop monitoring and evaluation performance indicators

Step 11:

- Set up Conflict and Trade-off Committee

The MSP process is highly consultative and adaptive

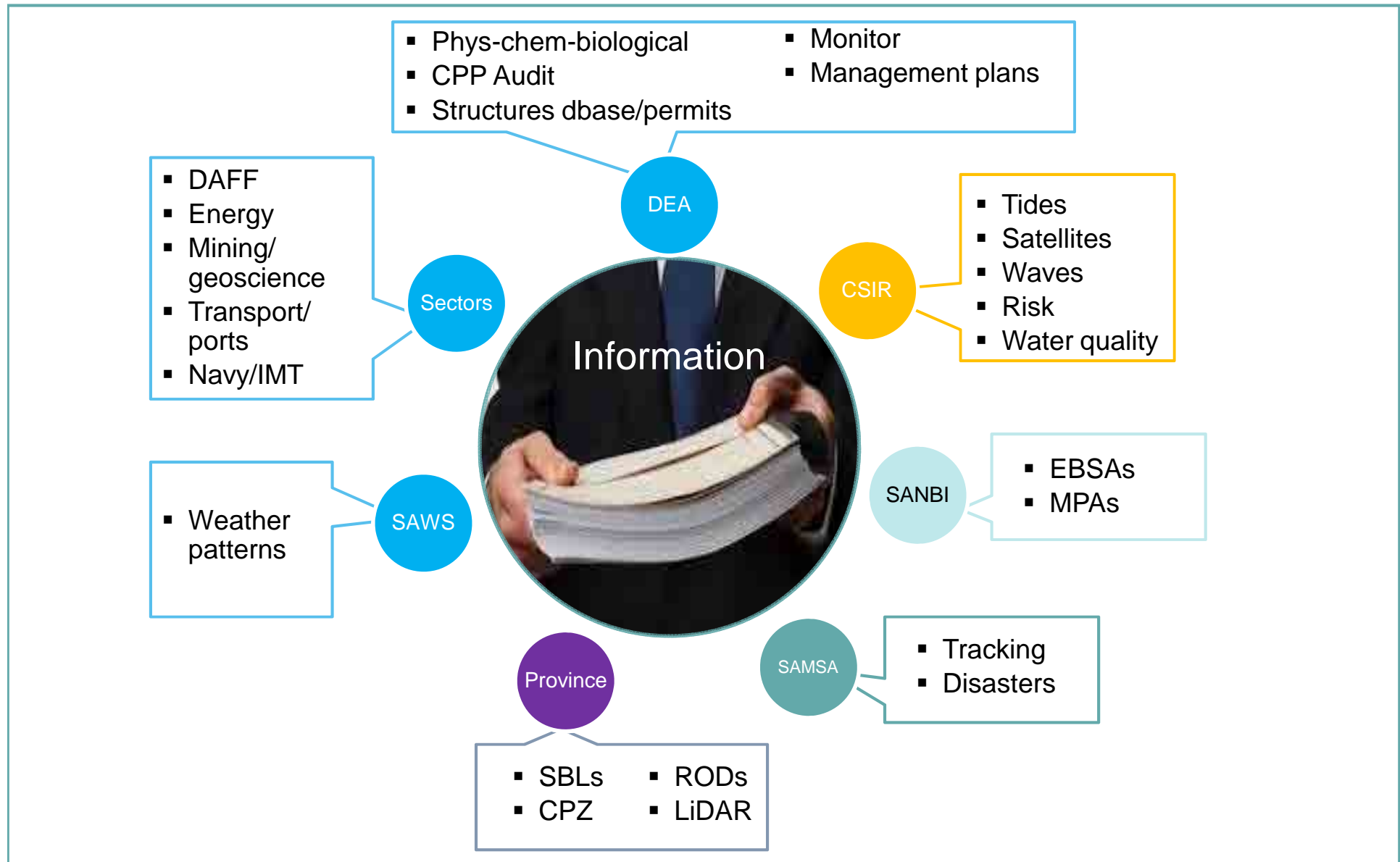


Stakeholder engagement is critical step to successful implementation

- Develop an **integrated stakeholder engagement plan** to facilitate development and implementation due to Interdependency between the ecosystem resources and its users:
 - Identify primary/secondary/internal/external stakeholders
 - Understand practices, expectations, interests, etc.
 - Run awareness, communication and education programmes
 - Do risk and opportunity analysis
 - Follow a change management approach
- Develop engagement platforms that support the needs, objectives and outcomes required per key stakeholder group
- Align with other key processes e.g., legal, commercial



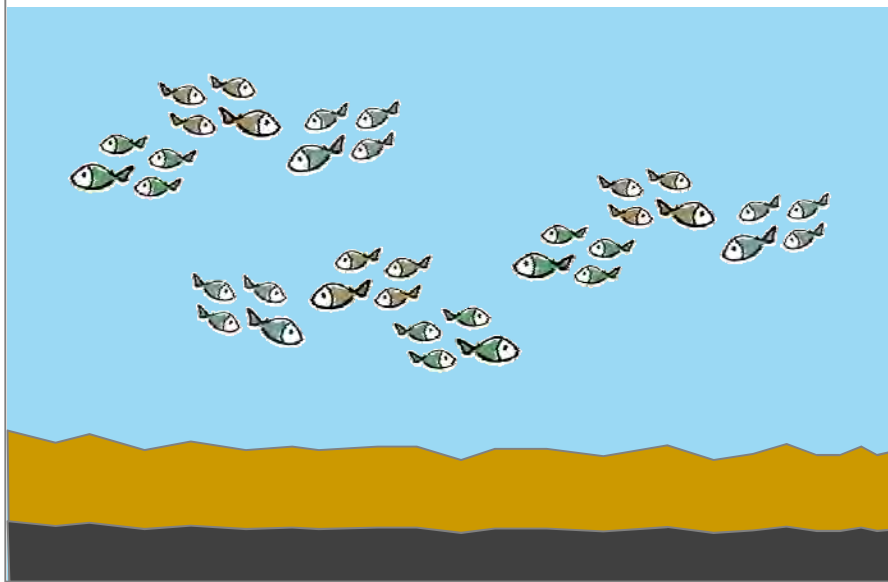
Data input examples



MSP plans will clarify zoning for each type of economic activity across all ocean economic sectors

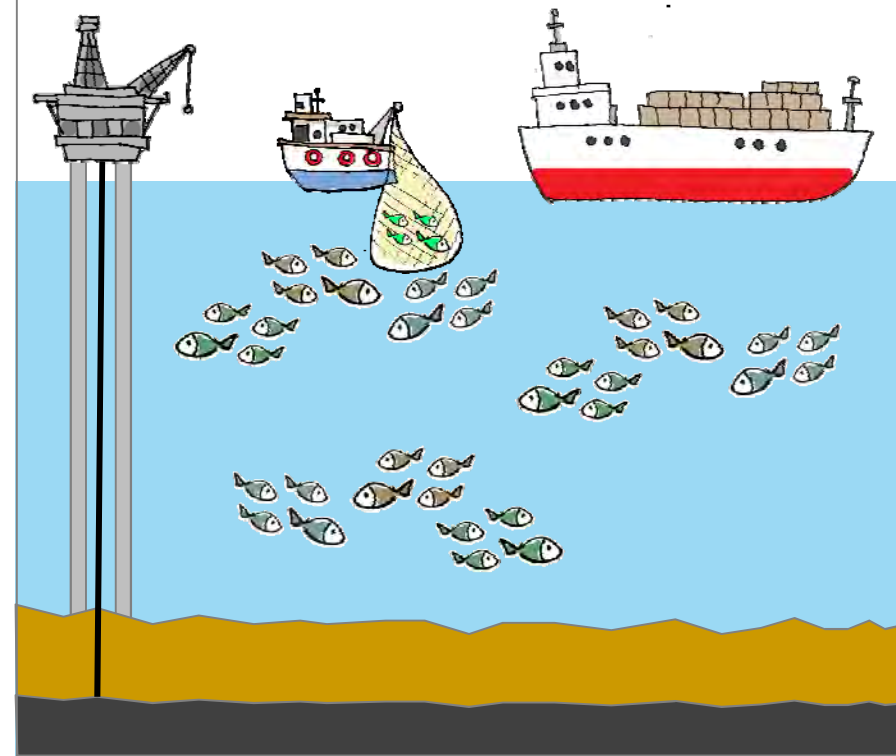
Before

Lack of clarity leads to a reluctance to commit to major investments in ocean economic activities

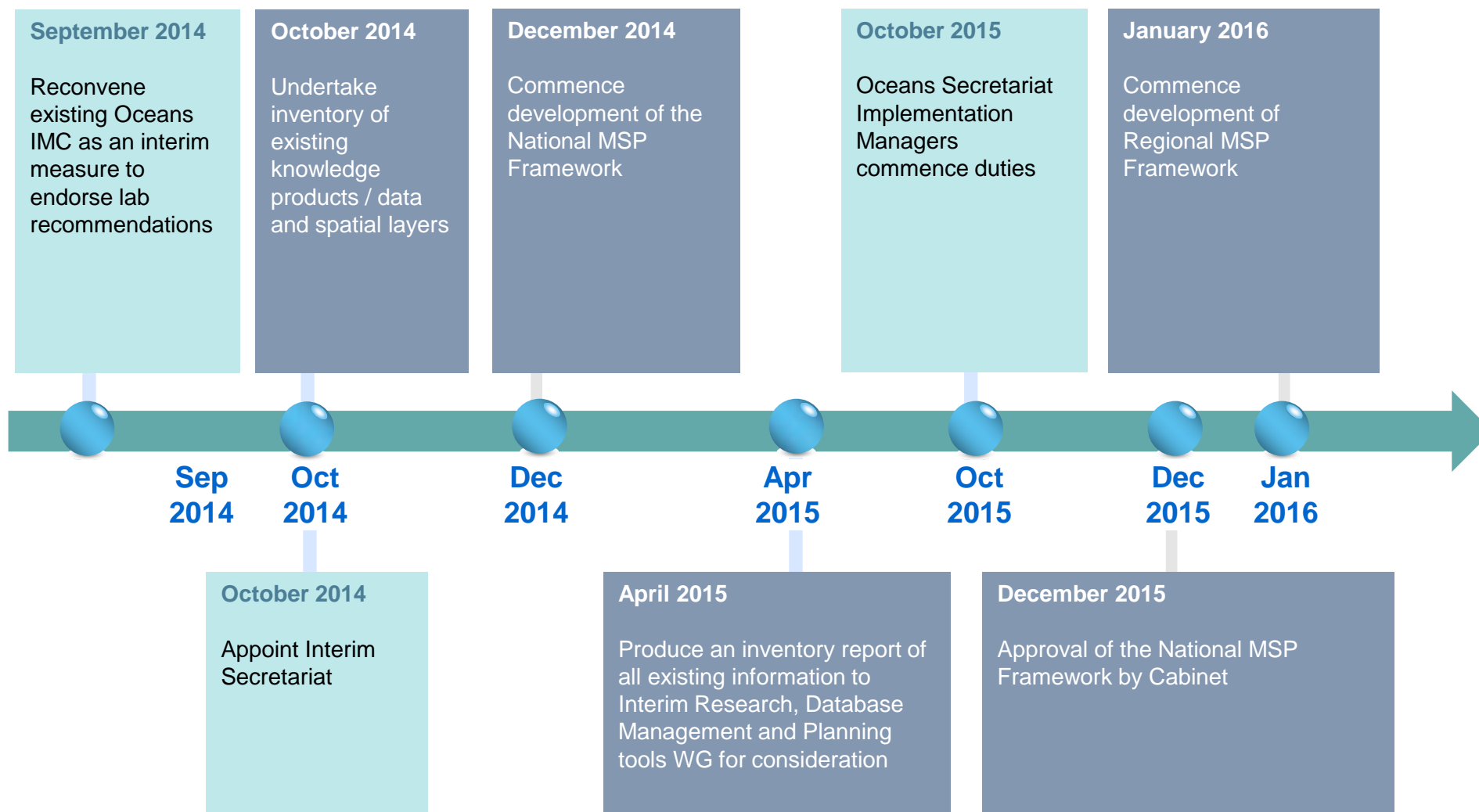


After

Well-defined **MSM Plans** will enable economic sectors to co-exist and raise investor confidence in future plans



The MSP process will tie in to the establishment of the Oceans Secretariat and will start work in parallel to the official appointment processes



INITIATIVES

Good governance and protection services will benefit everyone and will become the foundation of a sustainable ocean economy



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Overview

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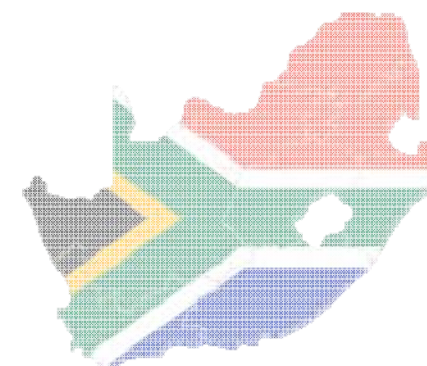
Initiatives

Budgets

KPIs

Implementation plans

Appendices



BUDGETS

Total budget requirements re-prioritise existing allocations to support the proposed initiatives (1/2)

Total budget

All figures in ZAR mn

#	Initiative	2014/15	2015/16	2016/17- 2018/19	Total
1	Ministerial Committee and Secretariat to govern activities	0	Govt: 2.54 Non-govt: 0	Govt: 14.22 Non-govt: 0	Govt: 16.76 Non-govt: 0
2	Enhancement of Legislation into the ICOM Act or Oceans Act	0	Govt: 0 Non-govt: 0	Govt: 0 Non-govt: 0	Govt: 0 Non-govt: 0
3	Review of ocean-related legislation	0	Govt: 0 Non-govt: 0	Govt: 0 Non-govt: 0	Govt: 0 Non-govt: 0
4	Accelerated capacity-building intervention in ocean governance	0	Govt: 1.72 Non-govt: 0	Govt: 2.68 Non-govt: 0	Govt: 4.41 Non-govt: 0
5	Enhanced and Coordinated Enforcement Programme	1.03	Govt: 66.43 Non-govt: 0	Govt: 101.39 Non-govt: 0	Govt: 168.85 Non-govt: 0
6	National O&C information system and extending earth observation capabilities	0	Govt: 81.79 Non-govt: 0	Govt: 380.92 Non-govt: 0	Govt: 462.71 Non-govt: 0
7	National Ocean and Coastal Water Quality Monitoring Programme	0	Govt: 202.64 Non-govt: 0	Govt: 789.69 Non-govt: 0	Govt: 992.33 Non-govt: 0

BUDGETS

Total budget requirements reprioritise existing allocations to support the proposed initiatives (2/2)

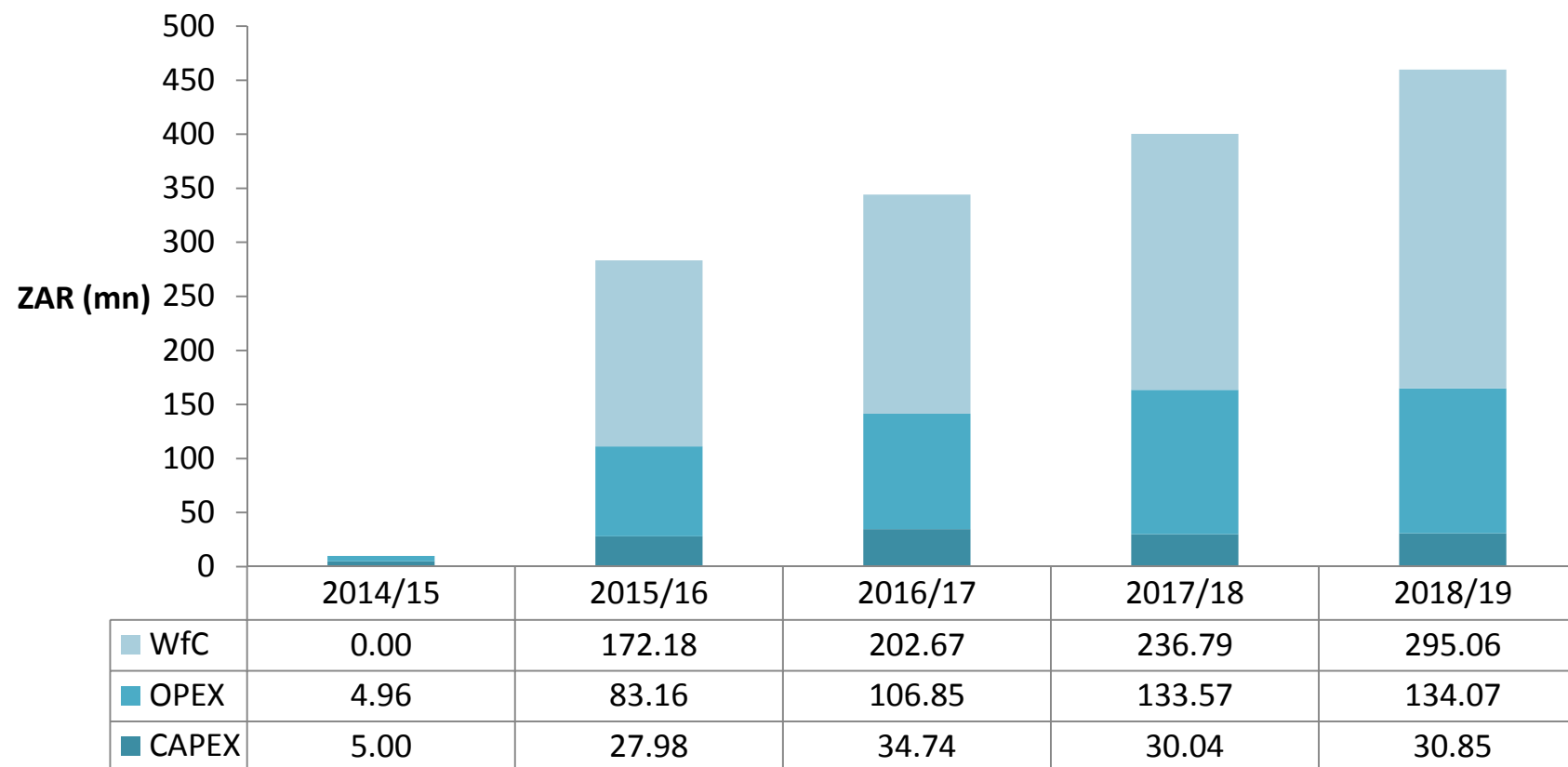
Total budget

All figures in ZAR mn

#	Initiative	2014/15	2015/16	2016/17- 2018/19	Total
8	Creating an MPA representative network	1.70	0.99	3.12	5.81
		Govt: 1.70	Govt: 0.99	Govt: 3.12	Govt: 5.81
		Non-govt: 0	Non-govt: 0	Non-govt: 0	Non-govt: 0
9	MPA/MSP Discovery, Research and Monitoring Programme	0.10	15.54	112.76	133.25
		Govt: 0.10	Govt: 15.54	Govt: 117.61	Govt: 133.25
		Non-govt: 0	Non-govt: 0	Non-govt: 0	Non-govt: 0
10	MSP process	2.00	11.13	75.31	88.43
		Govt: 2.00	Govt: 11.13	Govt: 75.31	Govt: 88.43
		Non-govt: 0	Non-govt: 0	Non-govt: 0	Non-govt: 0
TOTAL		9.96	321.16	1,385.85	1,716.97
		Govt: 9.96	Govt: 321.16	Govt: 1,385.85	Govt: 1,716.97
		Non-govt: 0	Non-govt: 0	Non-govt: 0	Non-govt: 0

BUDGETS

More than 50% of the budget comes from the existing Working with Coasts programme that will be expanded



Total budget required = **ZAR 1.72 bn**

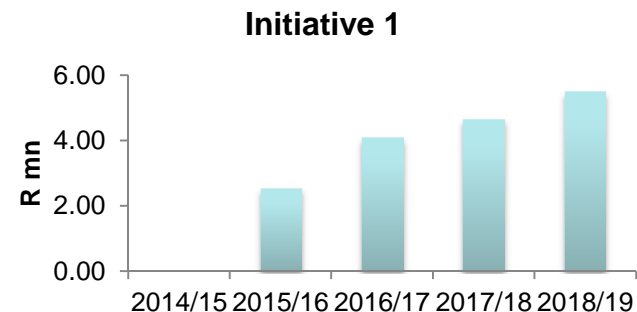
Total budget excluding existing Working for Coasts =
ZAR 0.81 bn

BUDGETS

Budget required per initiative (1/4)

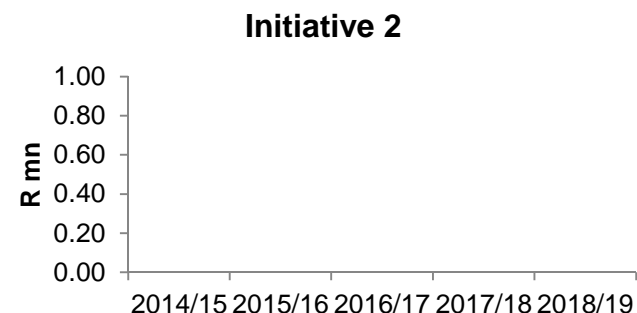
Initiative 1: Ministerial Committee and Secretariat to govern activities

Initiative 1		2014/15	2015/16	2016/17	2017/18	2018/19
Govt	CAPEX	0.00	0.00	0.00	0.00	0.00
	OPEX	0.00	1.29	1.50	1.87	2.50
	Compensation of employees	0.00	1.25	2.58	2.78	2.99
	Total Govt funding	0.00	2.54	4.08	4.64	5.49



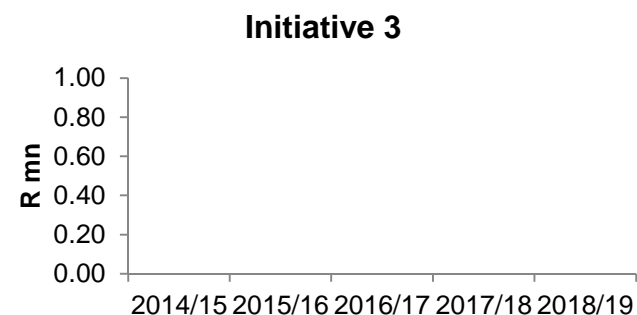
Initiative 2: Enhancement of legislation into the ICOM Act or Oceans Act

Initiative 2		2014/15	2015/16	2016/17	2017/18	2018/19
Govt	CAPEX	0.00				
	OPEX	0.00				
	Compensation of employees	0.00				
	Total Govt funding	0.00				



Initiative 3: Review of ocean-related legislation

Initiative 3		2014/15	2015/16	2016/17	2017/18	2018/19
Govt	CAPEX	0.00				
	OPEX	0.00				
	Compensation of employees	0.00				
	Total Govt funding	0.00				

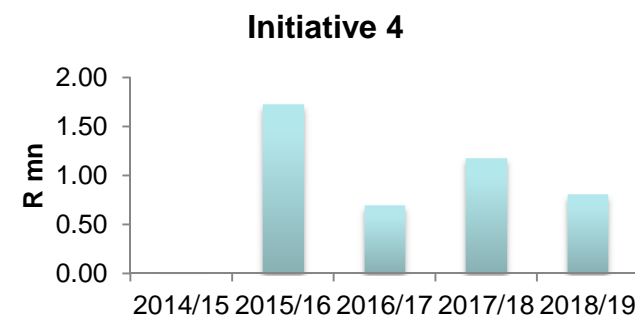


BUDGETS

Budget required per initiative (2/4)

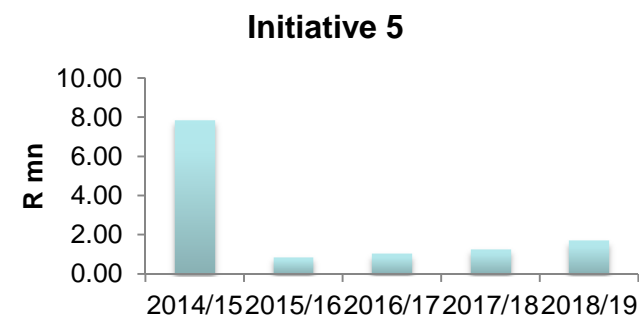
Initiative 4: Accelerated capacity-building intervention in ocean governance

Initiative 4		2014/15	2015/16	2016/17	2017/18	2018/19
Govt	CAPEX	0.00	0.00	0.00	0.00	0.00
	OPEX	0.00	1.72	0.69	1.18	0.80
	Compensation of employees	0.00	0.00	0.00	0.00	0.00
	Total Govt funding	0.00	1.72	0.69	1.18	0.80



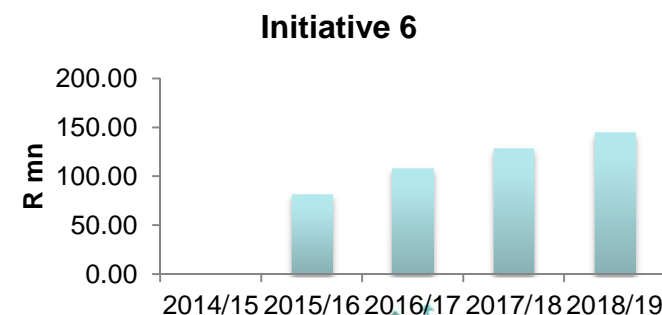
Initiative 5: Enhanced and Coordinated Enforcement Programme

Initiative 5		2014/15	2015/16	2016/17	2017/18	2018/19
Govt	CAPEX	5.00	0.00	0.00	0.00	0.00
	OPEX	2.86	0.87	1.00	1.25	1.68
	Compensation of employees	0.00	0.00	0.00	0.00	0.00
	Total Govt funding	7.86	0.87	1.00	1.25	1.68



Initiative 6: National O&C information system and extending earth observation capacity

Initiative 6		2014/15	2015/16	2016/17	2017/18	2018/19
Govt	CAPEX	0.00	11.84	20.85	27.42	29.51
	OPEX	0.00	33.36	37.06	43.62	49.62
	Compensation of employees	0.00	36.59	49.80	57.33	65.72
	Total Govt funding	0.00	81.79	107.70	128.37	144.85



BUDGETS

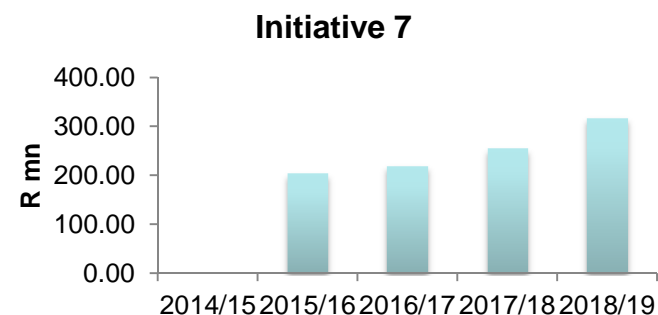
Budget required per initiative (3/4)

Initiative 7: National Ocean and Coastal Water Quality Monitoring Programme

Initiative 7		2014/15	2015/16	2016/17	2017/18	2018/19
Govt	CAPEX	0.00	16.14	2.32	2.49	1.34
	OPEX	0.00	14.31	14.24	15.45	19.31
	Compensation of employees	0.00	172.18	202.67	236.79	295.06
	Total Govt funding	0.00	202.64	219.23	254.74	315.72

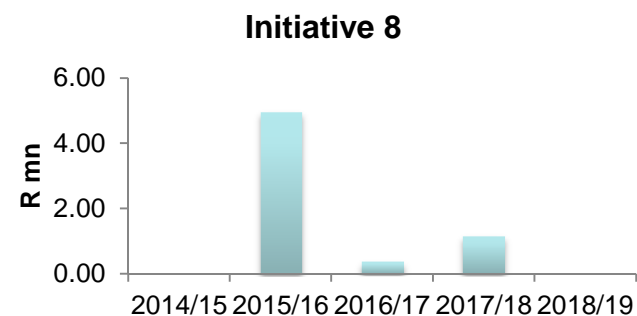


Existing Working for Coasts Programme



Initiative 8: Creation of an MPA representative network

Initiative 8		2014/15	2015/16	2016/17	2017/18	2018/19
Govt	CAPEX	0.00	0.00	0.00	0.12	0.00
	OPEX	0.00	4.94	0.35	1.02	0.00
	Compensation of employees	0.00	0.00	0.00	0.00	0.00
	Total Govt funding	0.00	4.94	0.35	1.15	0.00

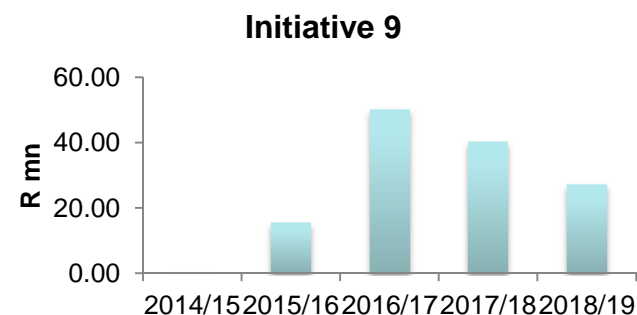


BUDGETS

Budget required per initiative (4/4)

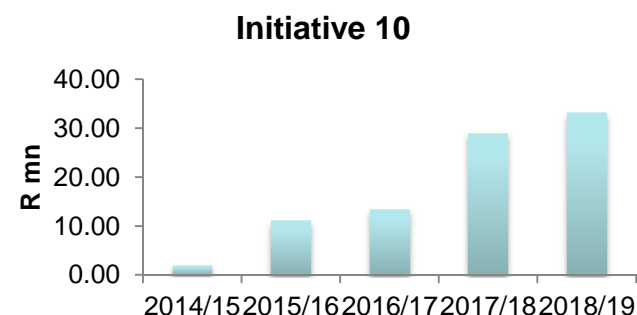
Initiative 9: MPA/MSP Discovery, Research and Monitoring Programme

Initiative 9		2014/15	2015/16	2016/17	2017/18	2018/19
Govt	CAPEX	0.00	0.00	11.58	0.00	0.00
	OPEX	0.10	15.54	38.63	40.31	27.09
	Compensation of employees	0.00	0.00	0.00	0.00	0.00
	Total Govt funding	0.10	15.54	50.21	40.31	27.09



Initiative 10: MSP process

Initiative 10		2014/15	2015/16	2016/17	2017/18	2018/19
Govt	CAPEX	0.00	0.00	0.00	0.00	0.00
	OPEX	2.00	11.13	13.38	28.86	33.06
	Compensation of employees	0.00	0.00	0.00	0.00	0.00
	Total Govt funding	2.00	11.13	13.38	28.86	33.06



Opportunities for cost-sharing

INITIATIVE	OPPORTUNITIES
4 Accelerated capacity-building intervention in ocean governance	<ul style="list-style-type: none"> Can be built into sector departments' budget planning Explore international partnerships
5 Enhanced and coordinated enforcement programme	<ul style="list-style-type: none"> Link output to development of Ocean and Coasts Information Systems to reduce cost – 40% Leverage international partnerships for professional services and experts
6 National ocean and coastal information system and extending earth observation capacity	<ul style="list-style-type: none"> Phased approach focused on information systems (25% of budget; remaining budget for additional satellites, monitoring equipment and models) Leverage international partnerships for professional services and experts
10 MSP process	<ul style="list-style-type: none"> Leverage international partnerships for professional services and experts
7 National Ocean and Coastal Water Quality Monitoring Programme	<ul style="list-style-type: none"> Water quality laboratory capital expense can be considered for private sector partnerships Leverage international partnerships for professional services and experts
8 MPA/MSP Discovery, Research and Monitoring Programme	<ul style="list-style-type: none"> New budget requirement = ZAR 86.71 mn of total of ZAR 133 mn Exclude amount targeted for reprioritisation of existing budget = ZAR 0.57 mn

Explore DIRCO opportunities: Bilateral engagements and use of missions to source professional expertise and technical infrastructure and capacity, including Indian Ocean Rim (IOR), Vice Chair - 2015 and Chair of IOR – 2017; opportunities for regional partnerships in African Integrated Maritime Strategy (AIMS)

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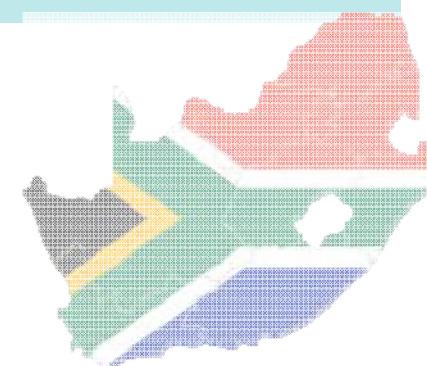
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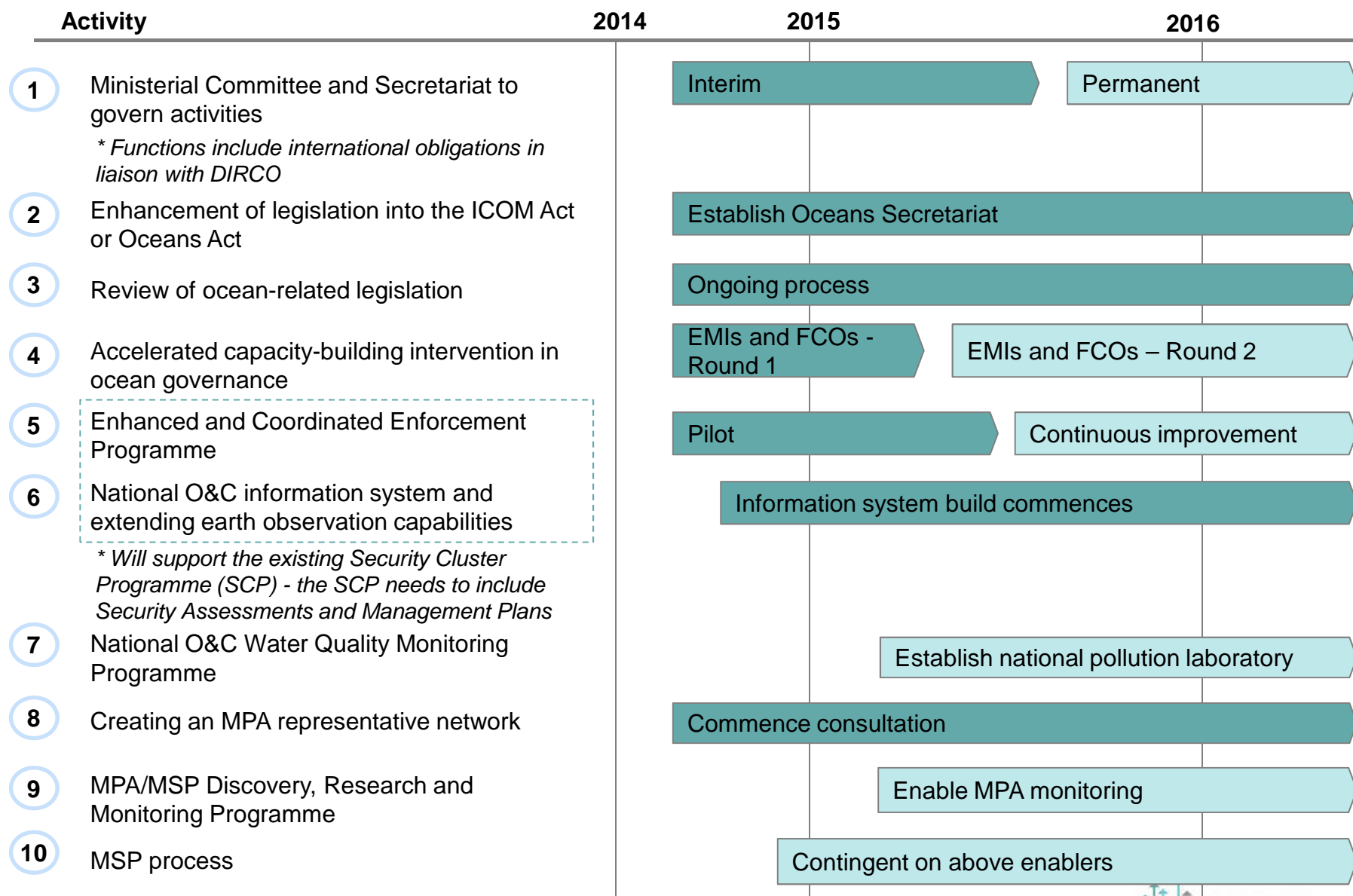
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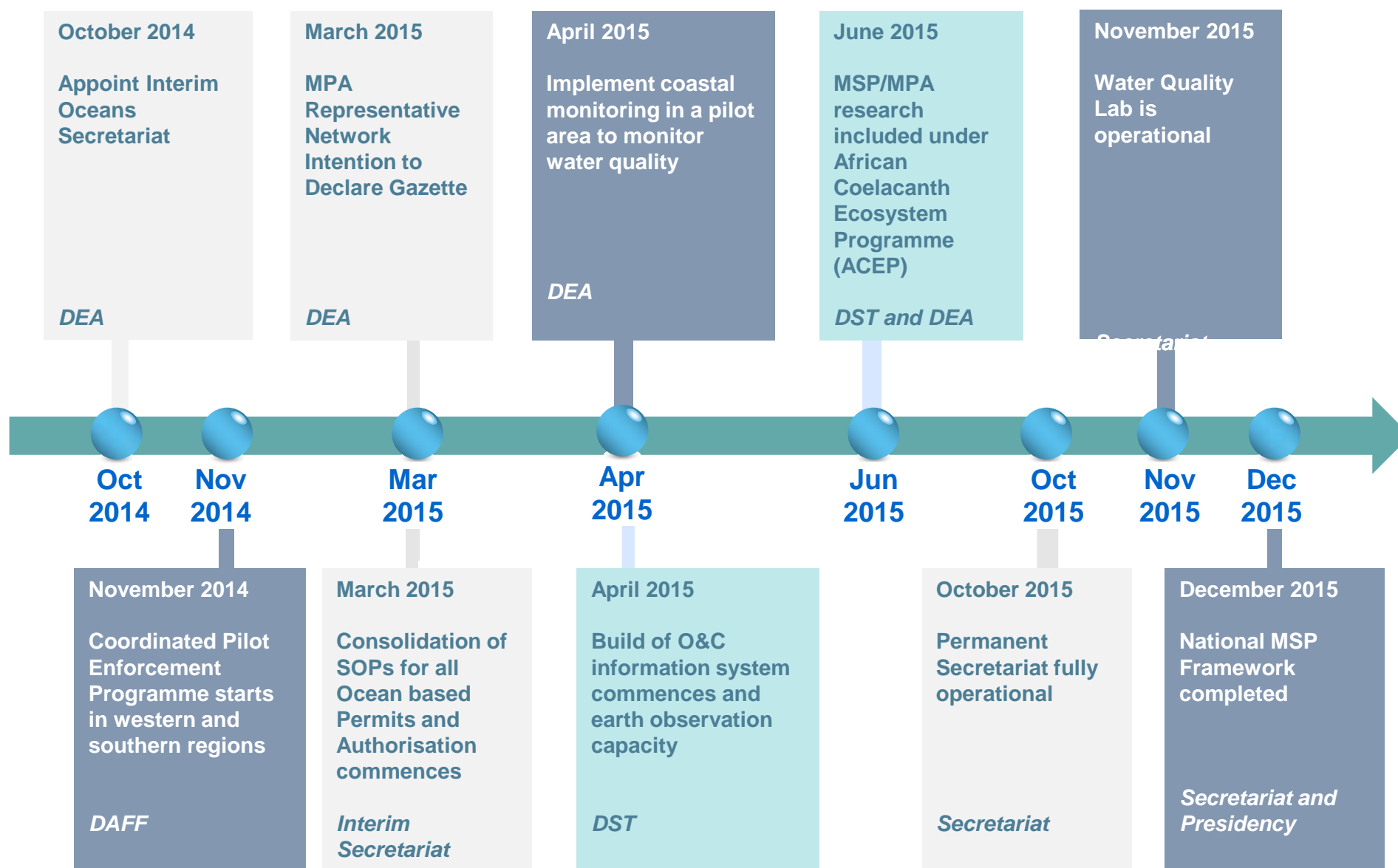
Coordinated ocean governance and enforcement greatly hinges on taking interdependencies into account to launch initiatives as soon as possible



Each initiative will be implemented by lead departments in the interim; some will be handed over to the Secretariat once the permanent structure is operational

	Interim	Long-term
1 Ministerial Committee and Secretariat to govern activities	DEA	Oceans Secretariat
2 Enhancement of legislation into the ICOM Act or Oceans Act	DEA	Oceans Secretariat
3 Review of ocean-related legislation	DEA	Oceans Secretariat
4 Accelerated capacity-building intervention in ocean governance	DAFF	Oceans Secretariat
5 Enhanced and Coordinated Enforcement Programme	DAFF	Oceans Secretariat
6 National O&C information system and extending earth observation capabilities	DST	
7 National O&C Water Quality Monitoring Programme	DEA	
8 Creating an MPA representative network	DEA	
9 MPA/MSP Discovery, Research and Monitoring Programme	DST and DEA	
10 MSP process	DEA	Oceans Secretariat

The initiatives will deliver on their milestones by December 2015



KPIs for Initiative 1 – Oceans Secretariat (1/2)

#		KPI owner	Baseline	KPI description				
				2014/15	2015/16	2016/17	2017/18	2018/19
1	Set up the institutional framework to govern ocean activities	OIMC Secretariat	None	Appoint OIMC, FOSAD Sub-committee and Interim HOS and Interim Implementation Managers	Formalise Permanent Secretariat			
1	Progress MSP development for South Africa's EEZ	Secretariat/sector departments	None	Appoint service provider to undertake inventory of existing knowledge products/ data and spatial layers, obtain 10 - 30 year future projections from key stakeholders, produce reports, identify gaps and provide recommendations	Develop National MSP Framework	Develop regional (sub-national) MSP Framework	Develop sub-regional MS Plan	Develop implementation plan and enforcement measures for the national, regional (sub-national) MSP framework and the sub-regional MS plan
1	Deliver the national oceans and coasts information system by 2019/20	Ocean Secretariat	No information system to view ocean and coast data across sectors or data gathering agencies. (DEA and DST have to date engage on planning an OC Information System and this work can be used as a starting platform)	Establish project Steering Committee, pilot satellite monitoring of one priority area	Finalise DEA and DST Contracting arrangement and project plan, including decisions on software and hardware systems. Develop the system initiated.	Develop and test the system	V1.0 of the system in place, with initial limited functionality	Approve system V1 and take to routine use for MSP products, and incorporate and report on data gathered by earth observation

KPIs for Initiative 1 – Oceans Secretariat (2/2)

#		KPI owner	Baseline	KPI description				
				2014/15	2015/16	2016/17	2017/18	2018/19
1	Implement the Coordinated Enforcement Programme	Secretariat/ sector departments	None	Complete pilot report	TBD after Pilot report is completed. Needs to be a % reduction in activities in the pilot area	TBD after pilot report is completed. Needs to be a % reduction in activities in an expanded area	TBD after pilot report is completed. Needs to be an increased % reduction in activities in an expanded area	TBD after pilot report is completed. Needs to be an increased % reduction in activities in an expanded area
1	Legislative review on Ocean legislative framework	Secretariat/ sector departments	None	Provide a report on the legislative review of the ocean-based legislation	Constitute ad hoc working cells under the legislation TWGs	TBD post-Labs - Progress on drafting ocean legislative framework for SA - Should be based on the number of amendments	TBD post-Labs- Progress on drafting ocean legislative framework for SA - Should be based on the number of amendments	TBD post-Labs - Progress on drafting ocean legislative framework for SA - Should be based on the number of amendments
1	Develop permitting and authorisation guidelines for the sector	Secretariat/ sector departments	None	Complete compilation of all ocean sector applications	Develop coordinated permitting guidelines across all ocean sectors	80% of applications to meet committed SOPs	85% of applications to meet committed SOPs	90% of applications to meet committed SOPs

KPIs for Initiative 2 – Enhancing ocean legislation to an ICOM Act or Oceans Act (1/2)

#		KPI owner	Baseline	KPI description				
				2014/15	2015/16	2016/17	2017/18	2018/19
Ocean governance legislation								
2	Completion of DEA feasibility study on appropriate legislative route	DEA	Not completed	Feasibility study is completed by end of October 2014				
2	Production of first draft Bill	DEA	Not completed	Draft Bill is distributed by end of February 2015				
2	Collation of comments and revision of draft	DEA	Not completed	Awaiting internal comments	Comments are collected and draft is revised by end of July 2015			
2	Pre-certification by state law advisors	DOJ	Not completed	Not completed	Bill is pre-certified by end of October 2015			
2	Cabinet approval of draft Bill	Cabinet/ DEA	Not completed	Not completed	Draft Bill is approved by Cabinet for publication for public comments by end of November 2015			
2	Draft Bill is published for public comments	DEA	Not completed	Not completed	Draft Bill is published for public comments by end of January 2016			
2	Collation of public comments and revision of draft	DEA	Not completed	Not completed	Public comments received by end of March 2016	Public comments are collected and draft is revised by end of June 2016		

KPIs for Initiative 2 – Enhancing ocean legislation to an ICOM Act or Oceans Act (2/2)

#		KPI owner	Baseline	KPI description				
				2014/15	2015/16	2016/17	2017/18	2018/19
Ocean governance legislation								
2	Cabinet approval of final Bill	CABINET/DEA	Not completed	Not completed	Not completed	Final Bill is approved by Cabinet by August 2016		
2	Certification by state law advisors	DOJ	Not completed	Not completed	Not completed	Final Bill is certified by end of November 2016		
2	Tabling of Bill in Parliament	DEA	Not completed	Not completed	December 2016	Tabling of Bill in Parliament by beginning of December 2016		
2	Processing of Bill in Parliament	Parliament	Not completed	Not completed	Not completed	Not completed	Promulgati on of Act by end of June 2017	

KPIs for Initiative 3 – Review of ocean-related legislation

#		KPI owner	Baseline	KPI description				
				2014/15	2015/16	2016/17	2017/18	2018/19
3	Establishment of inter-departmental task team	DEA	Not completed	Inter-departmental task team is established by end of September 2014				
3	Review and finalisation of working documents produced by Operation Phakisa	DEA	Not completed	Operation Phakisa working documents reviewed and finalised by end of March 2015				
3	Inter-departmental task team becomes legislation technical working group under interim Oceans Secretariat	DEA	Not completed	Not completed	First meeting as legislation of TWGs takes place by end of April 2015			
3	Constitution of ad hoc working cells under the legislation TWGs	Oceans Secretariat	Not completed	Not completed	Constitution of ad hoc working cells under the legislation TWGs by end of April 2015			

KPIs for Initiative 4 – Accelerate capacity-building for ocean governance (1/2)

#		KPI owner	Baseline	KPI description				
				2014/15	2015/16	2016/17	2017/18	2018/19
4	Register and publish the required Organisational Framework for Occupations (OFO) additions and changes for Marine Protection and Governance (MPG)	DEA	Estimated 40-50% of emerging occupations not included in the OFO or published	DHET to confirm status of identified skills, occupations and specialism	All identified marine protection and ocean governance occupations included in the national skills planning system		Estimated 40-50% of emerging occupations not included in the OFO or published	DHET to confirm status of identified skills, occupations and specialisations
4	Increase number of provincial EMIs	DEA	4 EMIs per province	7 EMIs per province by EOY	10 EMIs per province by EOY		4 EMIs per province	7 EMIs per province by EOY
4	Increase number of national EMIs	DEA	2 EMIs	6 EMIs	8 EMIs – 2 per province		2 EMIs	6 EMIs
4	Train EMIs and FOCs using train-the-trainer model for refresher course	DEA for EMIs DAFF for FOCs	EMIs and FCOs trained	1 EMI at each province 1 FCO at province			EMIs and FCOs trained	1 EMI at each province 1 FCO at province
4	Train Working for Coast participants to become Field Rangers	DEA	0 Field Rangers trained from Working for the Coast programme	7 Field Rangers trained from Working for the Coast programme	15 Field Rangers trained from Working for the Coast programme		0 Field Rangers trained from Working for the Coast programme	7 Field Rangers trained from Working for the Coast programme
4	Employ majority of Field Rangers trained as part of the Working for the Coast programme in permanent/long-term positions in oceans governance in DEA	DEA	0% employed in DEA after Working for the Coast programme	30% employed after Working for the Coast training programme and assessment	50% employed after Working for the Coast training programme and assessment	80% employed after Working for the Coast training programme and assessment	0% employed in DEA after Working for the Coast programme	30% employed after Working for the Coast training programme and assessment

KPIs for Initiative 4 – Accelerate capacity-building for ocean governance (2/2)

#		KPI owner	Baseline	KPI description				
				2014/15	2015/16	2016/17	2017/18	2018/19
4	DEA staff/Technical Working Group members trained in MSP	Implementation Leader: RDMPT	No staff currently trained	Undertake due process for the appointment of an international service provider for conducting of the MSP workshop	Conduct a 2-3 days expert MSP workshop for 10 DEA staff /TWG members, facilitated by international MSP expert, and produce a workshop report	-	Conduct a 2-3 day expert MSP workshop for 15 DEA staff/TWG members and produce a workshop report	-

KPIs for Initiative 5 – Enhanced and Coordinated Enforcement Programme

#		KPI owner	Baseline	KPI description				
				2014/15	2015/16	2016/17	2017/18	2018/19
5	Progress for the pilot Enhanced and Coordinated Enforcement Programme	DAFF	None	Exit report submitted				
5	MOU signed by committee members of the Technical Reference Group for compliance monitoring and enforcement	DAFF	MOU between DEA and DAFF, MRCC between SAMSA and SANDF, signed but partially implemented	Endorsed and signed MOU implemented by key stakeholders				

KPIs for Initiative 6 – National O&C information system and extending earth observation capacity (1/2)

#		KPI owner	Baseline	KPI description				
				2014/15	2015/16	2016/17	2017/18	2018/19
6	A	DST	Sub-critical mass pockets of R&D capabilities at universities and science councils	Engage with sector departments on user requirements, development of current capability map	User requirements for MSP and departments synthesised. Roadmap of EO needs and tools to be delivered over the next 4 years defined and budgets, COE established	3 Masters, 4 publication equivalent (points), proof of concept maritime oceanography tool, oil spill/bilge dump detection tool	2 PhDs, 2 Masters, 6 publication equivalents, proof of concepts developed for applications/tools in harmful algal blooms; ships in protected areas identifying "dark target" ships	2 Post Docs, 2 PhDs, 6 MSc, 8 publications equivalents, tools and applications further defined and tested for operationalisation of at least 2 applications/tools
6	Deliver the national oceans and coasts information system by 2019/20	Ocean Secretariat	No Information System to view ocean and coast data across sectors or data gathering agencies. (DEA and DST have to date engage on planning an OC information system and this work can be used as a starting platform)	Project Steering Committee established, pilot satellite monitoring of one priority area	DEA and DST contracting arrangement and project plan finalised, including decisions on software and hardware systems. Development of the system initiated.	Development and testing of the system	V1.0 of the system in place, with initial limited functionality	System V1 improved and taken to routine use for MSP products, and incorporating and reporting on data gathered by earth observation

KPIs for Initiative 6 – National O&C information system and extending earth observation capacity (2/2)

#		KPI owner	Baseline	KPI description				
				2014/15	2015/16	2016/17	2017/18	2018/19
6	Establish and implement the data(/ earth observation) Infrastructure required for the OCIS	DST	No systematic remote sensing data for the SA EEZ	Gap analysis of existing and required data sets	Inputs to Centre of Excellence for Marine Earth Observation. Data Policy completed. Data agreements with RadarSat (SAR) and European Space Agency (Sentinel) concluded. Agreement with DoT/SAMSA on direct access to all AIS data, NanoSat mission definition	NanoSat concept demonstrator, Agreement reached on EOSat1 Mission to support Oceans and Coasts Earth Observation with SANSA/DST, Completed ocean robotics requirements study	NanoSat Development Lab demonstration, demonstration of operational SAR data linked to oil spill monitoring system and demonstration of SAR and AIS dark targets and vessels in MPAs	Demonstration of Sentinel 1,2,3 data linked to oceanographic localised products e.g. HAB, demonstration of data infrastructure linked to information system with decision support tools, NanoSat engineering model

KPIs for Initiative 7 – National Ocean and Coastal Water Quality Monitoring Programme

#		KPI owner	Baseline	KPI description				
				2014/15	2015/16	2016/17	2017/18	2018/19
7	Implementation progress of the Coastal Monitoring Programme	DEA	None	Coastal Monitoring implemented in the first pilot area	Improvement of the programme and expansion to 3 new priority areas	Improvement of the programme and expansion to 4 new priority areas	Improvement of the programme and expansion to 5 new priority areas	Improvement of the programme and expansion to all remaining priority areas in South Africa
7	Progress of setting up of the National Pollution Laboratory (NPL)	Preferred institution	None	Location for National Pollution Laboratory (NPL) determined and agreed with host location	National Pollution Laboratory Operational	Analyses undertaken by the NPL and report on pollution samples for first coastal monitoring sites for Eastern Cape priority areas provided	Analyses undertaken by the NPL and report on pollution samples for Northern Cape and Western Cape coastal monitoring sites	Analyses undertaken by the NPL and report on pollution samples for KZN coastal monitoring sites
7	Progress of development on methodology / approach for setting applicable limits for coastal effluent discharges	DEA	None	Approach selected for setting limits into estuaries, surf zones, offshore and marine protected areas following evaluation.	Minimum limits for 2x aquaculture effluent discharges into Estuaries, surf zones, off shore and/or marine protected areas based on the established risks per facility (effluent composition) developed	Limits/standards for aquaculture effluent discharges gazetted and adopted	Minimum discharge limits for the 2x municipal effluent discharges into Estuaries, surf zone, or off shore environment (effluent composition) developed	Limits/standards for municipal effluent discharges gazetted and adopted

KPIs for Initiative 8 – Creation of an MPA representative network

#		KPI owner	Baseline	KPI description				
				2014/15	2015/16	2016/17	2017/18	2018/19
8	Intention to declare a network of MPAs published	DEA, SANBI	0.40%	5% of marine area formally proposed for protection within MPAs				
8	Proclamation of MPAs contributing to a representative effective MPA network	DEA	0.40%		5% of marine area formally protected in MPAs			
8	Implementation of MPA network	DEA	0.40%			All newly proclaimed MPAs have approved Management Plans		
8	Expansion plan for the additional 5% developed	DEA, SANBI	0.40%				Expansion Plan for the additional 5% developed	

KPIs for Initiative 9 – MPA/MSP Discovery, Research and Monitoring Programme

#		KPI owner	Baseline	KPI description				
				2014/15	2015/16	2016/17	2017/18	2018/19
9	Implementation of the ACEP - Phakisa Ocean Cruises Programme	NRF - SAIAB and DEA Oceans and Coasts			5 ACEP and 1 Phakisa Cruise	5 ACEP and 2 Phakisa Cruise	5 ACEP and 3 Phakisa Cruise	
9	Implementation of the MPA/MSP Discovery, Research and Monitoring Programme	TBA			MPA/MSP exploration and research programme design report completed and funded	Research and exploration activities initiated	Research and exploration activities ongoing	Research and exploration activities finalised - report produced

KPIs for Initiative 10 – MSP process

#		KPI owner	Baseline	KPI description				
				2014/15	2015/16	2016/17	2017/18	2018/19
10	Progress of MSP development for South Africa's EEZ	Secretariat/ sector departments	None	Appointment of the service provider to undertake inventory of existing knowledge products/ data and spatial layers, obtain 10 - 30 year future projections from key stakeholder, produce reports, identify gaps and provide recommendations	National MSP Framework developed	Regional (sub-national) MSP Framework developed	Sub-regional MS Management Plan developed	

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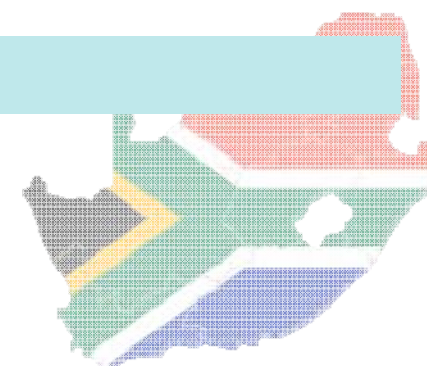
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Initiative 1 – Ministerial Committee and Oceans Secretariat to govern ocean activities (1/9)

#	Detailed activity	Responsible	Planned start date (dd.mm.yyyy)	Planned start date (dd.mm.yyyy)	Length (weeks)
Recommend the establishment of the OIMC, FOSAD Oceans Sub-committee and the Secretariat to the FOSAD Oceans Sub-committee					
1.1	Adoption of Lab Report recommendations, which includes all TORs produced by lab for the OIMC, Ocean FOSAD Sub-Committee and Secretariat	DG Environmental Affairs	20/10/2014	20/10/2014	0
1.2	Submit recommendations to existing Oceans IMC for consideration	Interim Secretariat of the IMC	21/10/2014	21/10/2014	0
Reconvene IMC as an interim measure					
2.1	Reconvene current Oceans IMC	Minister of Environmental Affairs	5/11/2014	5/11/2014	0
2.2	Deliberate Lab's delivery plans	Ocean IMC	5/11/2014	5/11/2014	0
2.3	Submit recommendations to the Cabinet	Interim Secretariat of the IMC	19/11/2014	19/11/2014	0
Appointment of the Oceans Inter-ministerial Committee (OIMC), FOSAD: Oceans Sub-committee and Interim Head Secretariat (HOS)					
3.1	Cabinet to endorse the establishment of the OIMC	Cabinet	19/11/2014	19/11/2014	0
3.1.1	Letters of appointment issued to members of the OIMC	DG Presidency	19/11/2014	26/11/2014	0
3.1.2	OIMC to convene	Minister of DPME (as chair)	12/12/2014	12/12/2014	0

Initiative 1 – Ministerial Committee and Oceans Secretariat to govern ocean activities (2/9)

No.	Detailed activity	Responsible	Planned start date (dd.mm.yyyy)	Planned start date (dd.mm.yyyy)	Length (weeks)
3.2	OIMC to appoint Ocean FOSAD sub-committee	DG Presidency			
3.2.1	Letters of appointment issued to members of the Ocean FOSAD Sub-committee	DPME Minister	20/02/2015	27/02/2015	7
3.3	Appoint an interim Secretariat and the Line Department Delivery Units (as advised by DPME)	DG DEA and DPME			
3.3.1	Appointment of an interim Head of Secretariat (HOS) through secondment from DEA	DG DEA and DPME	1/10/2014	1/10/2014	0
3.3.2	Appointment of the three interim Implementing Leaders through secondment from DEA or Line Departments	DG DEA and DPME	1/10/2014	1/10/2014	0
3.3.3	DEA to provide administration support to the Interim Secretariat until the permanent Secretariat is in place	DG DEA	1/10/2014	31/10/2015	56
3.3.4	Appointed members of the interim secretariat to assume duties	Interim HOS	13/10/2014	13/10/2014	0
3.3.5	Interim Secretariat to identify the key departments to form part of the Technical Working Groups of the Secretariat (See lab report for the composition of the technical groups).	Interim HOS	13/10/2014	17/10/2014	1
3.3.6	Secretariat to send invitation letters to the key ocean sector departments to nominate members into the Technical Working Groups of the Secretariat	Interim HOS	20/10/2014	24/10/2014	1
3.3.7	Identified Departments to respond to the letters within two weeks of having received the letters of invitation.	Interim HOS	24/10/2014	7/11/2014	2
3.3.8	HOS to send letter of appointment to the nominated members of the supporting structure	Interim HOS	7/11/2014	12/11/2014	1
3.4	Permanent HOS to be appointed	Chairperson of the FOSAD Sub-committee			0
3.4.1	Initiate and follow the due process for the appointment of the permanent HOS (Secondment or Normal Recruitment Process)	Chairperson of the FOSAD Sub-committee	13/04/2015	30/09/2015	24
3.4.2	Confirm the appointment of the permanent HOS	Chairperson of the FOSAD Sub-committee	31/07/2015	31/07/2015	0
3.4.3	Interim secretariat to do an official handover to the permanent secretariat	Interim HOS	1/10/2015	31/10/2015	4

Initiative 1 – Ministerial Committee and Oceans Secretariat to govern ocean activities (3/9)

No.	Detailed activity	Responsible	Planned start date (dd.mm.yyy y)	Planned start date (dd.mm.yyy y)	Length (weeks)
Appointment of the secretariat staff					
4.1	Appointment of the Implementation Manager of permitting and authorisation	Interim HOS			
4.1.1	Develop an advert for the new coordinator position	Interim HOS	1/4/2015	15/04/2015	2
4.1.2	Advertise for the appointment of the coordinator	Interim HOS	15/04/2015	15/04/2015	0
4.1.3	Interim HOS to submit a memo to the Chairperson of the FOSAD Sub-committee with recommendation on term of reference for potential panel members for the appointment of the coordinators	Interim HOS	15/04/2015	15/04/2015	0
4.1.4	FOSAD Sub-committee Chairperson to approve the recommendation on the terms of reference for the panel members for the appointment of the coordinators	FOSAD Sub-committee Chairperson	15/04/2015	19/04/2015	1
4.1.5	Shortlist applicants for the position	Interim HOS	15/05/2015	1/6/2015	2
4.1.6	Conduct interviews	Interim HOS	22/06/2015	26/06/2015	1
4.1.7	Interim HOS to prepare and submit a report to the FOSAD Sub-committee Chairperson with recommendations of the interview panel	Interim HOS	26/06/2015	29/06/2015	1
4.1.8	FOSAD Sub-committee Chairperson to approve the recommendations of the interview panel	FOSAD Sub-committee Chairperson	29/06/2015	10/7/2015	2
4.1.9	Appoint the successful candidate.	Interim HOS	13/07/2015	14/07/2015	0
4.1.10	Acceptance of the offer	Applicant	13/07/2015	17/07/2015	1
4.1.11	Commencement of duties by the successful candidate	Applicant	1/10/2015	1/10/2015	0
4.2	Appointment of the Implementation Manager for MSP and the Information Systems	HOS			
4.2.1	Develop an advert for the new coordinator position	Interim HOS	1/4/2015	15/04/2015	2

Initiative 1 – Ministerial Committee and Oceans Secretariat to govern ocean activities (4/9)

No.	Detailed activity	Responsible	Planned start date (dd.mm.yyy y)	Planned start date (dd.mm.yyy y)	Length (weeks)
4.2.2	Advertise for the appointment of the coordinator	Interim HOS	15/04/2015	15/04/2015	0
4.2.3	Interim HOS to submit a memo to the Chairperson of the FOSAD Sub-committee with recommendation on term of reference for potential panel members for the appointment of the coordinators	Interim HOS	15/04/2015	15/04/2015	0
4.2.4	FOSAD Sub-committee chairperson to approve the recommendation on the terms of reference for the panel members for the appointment of the coordinators	FOSAD Sub-committee Chairperson	15/04/2015	19/04/2015	1
4.2.5	Shortlist applicants for the position	Interim HOS	15/05/2015	1/6/2015	2
4.2.6	Conduct interviews	Interim HOS	22/06/2015	26/06/2015	1
4.2.7	Interim HOS to prepare and submit a report to the FOSAD Sub-committee with recommendations of the interview panel	Interim HOS	26/06/2015	29/06/2015	1
4.2.8	FOSAD Sub-committee to approve the recommendations of the interview panel	FOSAD Sub-committee Chairperson	29/06/2015	10/7/2015	2
4.2.9	Appoint the successful candidate.	Interim HOS	13/07/2015	14/07/2015	0
4.2.10	Acceptance of the offer	Applicant	13/07/2015	17/07/2015	1
4.2.11	Commencement of duties by the successful candidate	Applicant	1/10/2015	1/10/2015	0
4.3	Appointment of the Implementation Manager for Compliance and Surveillance	HOS			
4.3.1	Develop an advert for the new coordinator position	Interim HOS	1/4/2015	15/04/2015	2
4.3.2	Advertise for the appointment of the coordinator	Interim HOS	15/04/2015	15/05/2015	4
4.3.3	Interim HOS to submit a memo to the Chairperson of the FOSAD Sub-committee with recommendation on term of reference for potential panel members for the appointment of the coordinators	Interim HOS	15/04/2015	15/05/2015	4
4.3.4	FOSAD Sub-committee chairperson to approve the recommendation on the terms of reference for the panel members for the appointment of the coordinators	FOSAD Sub-committee Chairperson	15/04/2015	19/04/2015	1

Initiative 1 – Ministerial Committee and Oceans Secretariat to govern ocean activities (5/9)

No.	Detailed activity	Responsible	Planned start date (dd.mm.yyyy)	Planned start date (dd.mm.yyyy)	Length (weeks)
4.3.5	Shortlist applicants for the position	Interim HOS	15/05/2015	1/6/2015	2
4.3.6	Conduct interviews	Interim HOS	22/06/2015	26/06/2015	1
4.3.7	Conduct competency test for the top two candidates	Interim HOS	26/06/2015	29/06/2015	1
4.3.8	Interim HOS to prepare and submit a report to the FOSAD Sub-committee with recommendations of the interview panel	FOSAD Sub-committee Chairperson	29/06/2015	10/7/2015	2
4.3.9	FOSAD Sub-committee to approve the recommendations of the interview panel				0
4.3.10	Appoint the successful candidate.	Interim HOS	13/07/2015	14/07/2015	0
4.3.11	Acceptance of the offer	Applicant	13/07/2015	17/07/2015	1
4.3.12	Commencement of duties by the successful candidate	Applicant	1/10/2015	1/10/2015	0
4.4	Appointment of the Implementation Manager for Monitoring and Evaluation	HOS			
4.4.1	Develop an advert for the new coordinator position	Interim HOS	1/4/2015	15/04/2015	2
4.4.2	Advertise for the appointment of the coordinator	Interim HOS	15/04/2015	15/05/2015	4
4.4.3	Interim HOS to submit a memo to the Chairperson of the FOSAD Sub-committee with recommendation on term of reference for potential panel members for the appointment of the coordinators	Interim HOS	15/04/2015	15/05/2015	4
4.4.4	FOSAD Sub-committee chairperson to approved the recommendation on the terms of reference for the panel members for the appointment of the coordinators	FOSAD Sub-committee Chairperson	15/04/2015	19/04/2015	1
4.4.5	Shortlist applicants for the position	Interim HOS	15/05/2015	1/6/2015	2
4.4.6	Conduct interviews	Interim HOS	22/06/2015	26/06/2015	1

Initiative 1 – Ministerial Committee and Oceans Secretariat to govern ocean activities (6/9)

No.	Detailed activity	Responsible	Planned start date (dd.mm.yyyy)	Planned start date (dd.mm.yyyy)	Length (weeks)
4.4.7	Interim HOS to prepare and submit a report to the FOSAD Sub-committee with recommendations of the interview panel	Interim HOS	26/06/2015	29/06/2015	1
4.4.8	FOSAD Sub-committee to approve the recommendations of the interview panel	FOSAD Sub-committee Chairperson	29/06/2015	10/7/2015	2
4.4.9	Appoint the successful candidate.	Interim HOS	13/07/2015	14/07/2015	0
4.4.10	Acceptance of the offer	Applicant	13/07/2015	17/07/2015	1
4.4.11	Commencement of duties by the successful candidate	Applicant	1/10/2015	1/10/2015	0
4.5	Appointment of the administration staff (X3) (as linked to the labs requirements for unlocking the ocean economy)	HOS			
4.5.1	Develop an advert for the new administration staff	Interim HOS	1/4/2015	15/04/2015	2
4.5.2	Advertise for the appointment of the administration staff	Interim HOS	15/04/2015	15/05/2015	4
4.5.3	Interim HOS to submit a memo to the Chairperson of the FOSAD Sub-committee with recommendation on term of reference for potential panel members for the appointment of the administration staff	Interim HOS	15/04/2015	15/05/2015	4
4.5.4	FOSAD Sub-committee Chairperson to approve the recommendation on the terms of reference for the panel members for the appointment of the admin staff	FOSAD Sub-committee Chairperson	15/04/2015	19/04/2015	1
4.5.5	Shortlist applicants for the position	Interim HOS	15/05/2015	1/6/2015	2
4.5.6	Conduct interviews	Interim HOS	22/06/2015	26/06/2015	1
4.5.7	Interim HOS to prepare and submit a report to the FOSAD Sub-committee with recommendations of the interview panel	Interim HOS	26/06/2015	29/06/2015	1
4.5.8	FOSAD Sub-committee to approve the recommendations of the interview panel	FOSAD Sub-committee Chairperson	29/06/2015	10/7/2015	2
4.5.9	Appoint the successful candidate.	Interim HOS	13/07/2015	14/07/2015	0

Initiative 1 – Ministerial Committee and Oceans Secretariat to govern ocean activities (7/9)

No.	Detailed activity	Responsible	Planned start date (dd.mm.yyyy)	Planned start date (dd.mm.yyyy)	Length (weeks)
4.5.10	Acceptance of the offer	Applicant	13/07/2015	17/07/2015	1
4.5.11	Commencement of duties by the successful candidate	Applicant	1/10/2015	1/10/2015	0
4.6	Appointment of the Personal Assistant to the Implementation Manager for Secretariat	HOS			
4.6.1	Develop an advert for the Personal Assistant to the HOS	HOS	1/10/2015	9/10/2015	1
4.6.2	Advertise for the appointment of the Personal Assistants	HOS	9/10/2015	9/10/2015	0
4.6.3	HRMD to submit a memo to the HOS with recommendation on term of reference for potential panel members for the appointment of the Personal Assistants	HOS	9/10/2015	9/10/2015	0
4.6.4	HOS to approve the recommendation on the terms of reference for the panel members.	HOS	9/10/2015	15/10/2015	1
4.6.5	Shortlist applicants for the position and contact candidates	HOS	2/11/2015	6/11/2015	1
4.6.6	Conduct interviews	HOS	23/11/2015	23/11/2015	0
4.6.7	HOS to prepare and submit a report to the FOSAD Sub-committee with recommendations of the interview panel	HOS	23/11/2015	26/11/2015	1
4.6.8	FOSAD Sub-committee Chairperson to approve the recommendations of the interview panel	HOS	26/11/2015	30/11/2015	1
4.6.9	Appoint the successful candidate.	HOS	30/11/2015	2/12/2015	0
4.6.10	Acceptance of the offer	HOS	2/12/2015	5/12/2015	1
4.6.11	Commencement of duties by the successful candidate	HOS	1/1/2016	1/1/2016	0
4.7	Permitting and Authorisation				
4.7.1	Edit Terms of Reference for the Permitting and Authorisations TWG	Interim Implementation Manager for the Permitting Unit	1/4/2015	8/4/2015	1

Initiative 1 – Ministerial Committee and Oceans Secretariat to govern ocean activities (8/9)

No.	Detailed activity	Responsible	Planned start date (dd.mm.yyyy)	Planned start date (dd.mm.yyyy)	Length (weeks)
4.7.2	Edit the list of key departments to take part in the Technical Working Group as per the ToR	Interim Implementation Manager for the Permitting Unit	1/4/2015	8/4/2015	1
4.7.3	Approval of the ToR and the list of key Departments by the Interim HOS	Interim Implementation Manager for the Permitting Unit	8/4/2015	9/4/2015	0
4.7.4	Prepare letters of nomination for the line function departments to nominate staff members into the Technical Working Group	Interim Implementation Manager for the Permitting Unit	8/4/2015	10/4/2015	0
4.7.5	Approval of the letters of nomination by the HOS	HOS	9/4/2015	10/4/2015	0
4.7.6	Distribute the letters of nomination to the members line Departments identified	Interim Implementation Manager for the Permitting Unit	10/4/2015	10/4/2015	0
4.7.7	Line Departments to respond within 2 weeks of letters being distributed.	Line Departments/Interim Implementation Manager for the Permitting Unit	10/4/2015	24/4/2015	2
4.7.8	Prepare appointment letters for the nominated candidates to serve in the TWG	Interim Implementation Manager for the Permitting Unit	24/4/2015	27/4/2015	1
4.7.9	HOS secretarial to sign the appointment letters for the members of the Technical Working Group	Interim Implementation Manager for the Permitting Unit	27/4/2015	28/4/2015	0
4.7.10	Distribute the letters of appointment to the appointed members of the Technical Working Group	Interim Implementation Manager for the Permitting Unit	28/04/2015	28/04/2015	0
4.7.11	Prepare and send invites for the inception meeting of the TWG to the appointed members	Interim Implementation Manager for the Permitting Unit	28/04/2015	28/04/2015	0
4.7.12	Convene a TWG inaugural meeting	Interim Implementation Manager for the Permitting Unit	12/5/2015	16/5/2015	1
4.7.13	Agree on the ToR for the TWG	Members of the TWG	12/5/2015	12/5/2015	0
4.7.14	Prepare and agree on the Implementation Protocol, Memorandum of Understanding and the work plan for the TWG	Members of the TWG	12/5/2015	14/5/2015	0
4.7.15	Appointment of Task Teams for the Development of the Standard Operating Procedures (SOPs) for the different sector applications	Members of the TWG	12/5/2015	12/5/2015	0

Initiative 1 – Ministerial Committee and Oceans Secretariat to govern ocean activities (9/9)

No.	Detailed activity	Responsible	Planned start date (dd.mm.yyyy)	Planned start date (dd.mm.yyyy)	Length (weeks)
4.7.17	Develop guideline to inform permitting while MSP is being developed.	Members of the TWG	13/5/2015	15/5/2015	0
4.7.18	Develop a Socio-economic guideline to inform permitting while MSP is being developed.	Members of the TWG	13/5/2015	15/5/2015	0
4.7.19	Circulate the first draft SOPs together with the decision making tools to Line Departments for comments (a deadline of one week will be given for the commenting bodies)	Task Teams	15/5/2015	15/5/2015	0
4.7.20	Consolidation of comments from the commenting bodies	Task Teams	25/5/2015	29/5/2015	1
4.7.21	Convene a TWG meeting for the review and recommendation of the SOPs and the decision making tools for adoption by the HOS	Task Teams	4/6/2015	4/6/2015	0
	Submit the draft Implementation Protocol and the MoU to the HOS for noting and taking up to the FOSAD Oceans Sub-committee and the OIMC for adoption.	Interim Implementation Manager for the Permitting Unit/HOS	5/6/2015	5/6/2015	0
4.7.22	Submit the draft SOP and the decision-making tools to the HOS for adoption	Interim Implementation Manager for the Permitting Unit	5/6/2015	5/6/2015	0

Initiative 4 – Accelerated capacity-building intervention in ocean governance will support development of these skills (1/11)

No.	Detailed activity	Responsible	Planned start date (dd.mm.yyy y)	Planned start date (dd.mm.yyy y)	Length (weeks)
1. Occupations required for Operation Phakisa identified and are registered on the Organising Framework of Occupations (OFO) with DHET					
1.1	OFO Issued to Phakisa labs and utilisation explained	DHET	1/10/2014	2014/10/08	1
1.2	Oceans Employers utilise OFO to identify all occupations across all productions processes or value chains for all Phakisa processes	DEA, DPME	2014/10/09	2014/11/20	6
1.3	Occupations not existing on OFO or specialisations not OFO are submitted by DEA to DHET for evaluation and possible addition to OFO	DEA, DHET	2014/11/21	2015/02/13	12
1.4	Final list of occupations as per OFO Codes, existing and new for all Phakisa labs published among all Phakisa stakeholders for comment.	DEA	2015/02/14	2015/06/06	16
1.5	Subject to comments received from Stakeholders, final list of OFO Codes and occupations for all Phakisa operations published.	DEA	2015/06/07	2015/07/05	4
2. Qualifications for each Phakisa Occupation developed, registered on the NQF and delivered against a national standardised curriculum at Centres of Specialisation					
2.1	Establish funding requirements and obtain approval for the operating costs of the Operation Phakisa Occupational Team Coordinating Office and the Occupational Teams.	DEA, DPME	2015/07/06	2015/08/31	8
2.2	Develop the job specifications and scope of the Operation Phakisa Occupational Team Lead Coordinator and recruit and appoint the Operation Phakisa Occupational Coordinating Team (OPOCT) Staff.	DEA	2015/09/01	2015/11/24	12
2.3	Occupational Team members for Phakisa occupations identified, with MOAs between 4 organisations of each OT in place between OT members and DHET	OPOCT	2015/11/25	2016/02/17	12
2.4	Intermediate Bodies (IB) for groups of Phakisa occupations identified and/or appointed to coordinate the development of learning processes, with MOAs in place between Intermediary Bodies and OPOCT	OPOCT	2016/02/18	2016/05/12	12

Initiative 4 – Accelerated capacity-building intervention in ocean governance will support development of these skills (2/11)

No.	Detailed activity	Responsible	Planned start date (dd.mm.yyy y)	Planned start date (dd.mm.yyy y)	Length (weeks)
2.5	IB evaluates each Phakisa occupation required checked against existing NQF registered qualifications or part qualifications to determine if existing occupational qualifications exists	DHET, IBs, SAQA	2016/05/13	2016/07/08	8
2.6	If qualifications or part qualifications exists on the NQF, the outcomes of the qualification or part qualification is checked with Oceans employers by the IB if suitable, relevant and current.	DHET, IBs, DEA	2016/07/09	2016/10/29	16
2.7	If existing qualification or part qualification is accepted, then qualification or part qualification revision is scheduled as per review and expiration dates.	DHET, SAQA, QCTO	2016/10/30		On-going
2.8	If existing qualification or part qualification is not accepted, then qualification or part qualification development by the IB through DQP / AQP by QCTO for Occupational qualifications or in the case of University Qualifications through the CHE / HEQC process.	IBs, OPOCT, QCTO	30/01/2015	2015/10/09	36
2.9	Detailed national curriculum content developed for occupational qualification by the IB	IBs, OPOCT	2015/10/10	2016/06/18	36
2.10	Learner materials, lecturer / trainer materials developed and published by IB	IBs, OPOCT	2016/06/19	2016/10/09	16
2.11	Develop and implement lecturer / trainer reskilling processes by IB	IBs, OPOCT	2016/10/10	2017/01/30	16
2.12	IB identifies or advises on the creation of Centres of Specialisation could University Chair, College, Training Centre etc..) to deliver the occupation programme	IBs, OPOCT, DHET	2017/01/31	2017/04/25	12
2.13	IB facilitates the reskilling of lecturers / trainers at identified Centres of Specialisation to deliver Knowledge and Practical components of occupational qualifications	IBs, OPOCT, DHET	2017/04/26	2017/10/11	24
2.14	Upgrade or construct Centres of Specialisation for each qualification subject to needs of centre. This will includes tools, equipment and possible training aids	IBs, OPOCT, DHET	2017/10/12	2020/10/22	158
2.15	IB integrates Oceans Occupation into Programme Mix for each Centre of Specialisation	IBs, OPOCT, DHET	2020/10/23	2021/02/12	16

Initiative 4 – Accelerated capacity-building intervention in ocean governance will support development of these skills (3/11)

No.	Detailed activity	Responsible	Planned start date (dd.mm.yyy y)	Planned start date (dd.mm.yyy y)	Length (weeks)
3. Opportunities for work and/or learning for each Phakisa Occupation registered on ESSA system with DoL and local or international work seekers sourced					
3.1	Put in place an MOA between DOL and OPOCT link ESSA and Oceans Employers to facilitate easier registration, verification of data, and recruitment and placement of persons in opportunities.	DEA, DoL	2017/10/12	2018/01/04	12
3.2	Each Phakisa Occupation and Code with job description criteria aligned to OFO tasks registered on ESSA System	OPOCT, DoL	2018/01/05	2018/06/22	24
3.3	Each employer within Oceans sector determines work and/or workplace learning opportunities linked to date for commencement of opportunity per occupation	OPOCT, DoL	2018/06/23	2018/12/08	24
3.4	Each opportunity lined to commencement date registered on ESSA System and work seekers canvassed through career marketing initiatives (see Milestone 4)	OPOCT, DoL	2018/12/09	2019/03/03	12
3.5	Where work seekers are not sourced through ESSA system, Home Affairs is advised to issue international work opportunities through their international missions	DEA, DoL, DHA	2019/03/04		On-going
3.6	Local or International worker seekers are contracted onto opportunities for learning and/or employment	DEA	2019/03/04		Ongoing
4. Advocacy and Research programme for all Phakisa occupations implemented and sustained					
4.1	Expert for as many SA Languages for each Oceans occupation identified and name of expert submitted to DHET Kheta Community Radio Programmes Coordinator	DEA, DHET	2017/10/12	2018/01/04	12
4.2	Experts are scheduled and participate on Community Radio Stations to promote Oceans occupations and encourage qualified persons to register on ESSA Work Seekers database of DoL labour centres	DHET (SABC)	2018/01/05		On-going
4.3	All Oceans occupations are promoted through relevant career promotion activities such as Decade of Artisan and Job fairs	DEA, DHET, DoL	2018/01/05		On-going

Initiative 4 – Accelerated capacity-building intervention in ocean governance will support development of these skills (4/11)

No.	Detailed activity	Responsible	Planned start date (dd.mm.yyy y)	Planned start date (dd.mm.yyy y)	Length (weeks)
4.4	Develop and implement Oceans Research Agenda with Budget and timelines with Researchers appointed with intern researchers as mentees	DST (NRF)	2018/01/05	2020/01/03	104
5. Workplaces identified and capacity for each occupation in each workplace determined by learner : mentor capacity with plans and processes developed to expand number and capacity of workplaces.					
5.1	All Oceans employers indemnify and register qualified (certificated or experienced) persons that can be mentors to learners in workplaces in public or private organisations	DEA, DHET	30/01/2015	2015/07/17	24
5.2	All mentors are developed through a generic mentor / coach training course to ensure consistent and developmental approach to learner development.	DHET	2015/07/18	2016/01/02	24
5.3	Each mentor is allocated a number of learners relevant to the mentor: learner ratio as agreed to be appropriate by employers for each occupation	DEA, DHET	2016/01/03		On-going
5.4	Workplace capacity is expanded as more and more persons become qualified, especially in State departments and have learners allocated to them for mentoring.	DEA, DHET	2016/01/03		On-going
6. Workers with relevant experience identified and placed on recognition of prior learning processes to enable competency for each Phakisa occupation					
6.1	Each Oceans Employer in collaboration with Unions and/or employee associations identify workers within their organisations with five years or more experience in any of the occupations for the Oceans sector these learners on an RPL database.	DEA, DHET, Unions	30/01/2015	2015/07/17	24
6.2	RPL Panels are established for each occupation that has RPL workers registered against and RPL panel utilise and/or develop RPL toolkits to evaluate workers for certification or assessment or top up training.	DHET, Unions	2015/07/18	2016/07/16	52
6.3	Each RPL candidate registered is evacuated by the RPL panel and a developmental plan for each worker is implemented subject to results of evaluation.	DHET, Unions	2016/07/17	2017/07/16	52
6.4	Developmental plans are implemented for each RPL worker until certificated.	DHET	2017/07/17	2020/07/13	156

Initiative 4 – Accelerated capacity-building intervention in ocean governance will support development of these skills (5/11)

No.	Detailed activity	Responsible	Planned start date (dd.mm.yyy y)	Planned start date (dd.mm.yyy y)	Length (weeks)
7. Targeted number of competent persons required per annum for next 5, 10, 20 years for each OFO coded occupation as identified by Phakisa Labs delivered by Centre(s) of Specialisation and relevant work places for each occupation.					
7.1	Each Oceans sub sector determines number of competent persons per occupation required in 5, 10 and 20 years and the geographic location of each occupation(s)	DEA	30/01/2015	2015/05/22	16
7.2	Numbers of competent persons per occupation required per period is reduced by number of competent persons found through ESSA or through International sourcing to determine number of people to be registered for learning at Centres of Specialisation.	DHET	2015/05/23	2015/11/07	24
7.3	Identify public / private institutions that can be Centres of Specialisation to deliver the knowledge and practical the learning components of occupational qualifications for each occupation(s)	DHET	2015/11/08	2016/04/24	24
7.4	Determine capacity requirements to deliver the number of competent occupations required from each Centre of Specialisation(s)	DHET	2016/04/25	2017/04/24	52
7.5	Design, develop and implement infrastructure and human resource capacity development processes where necessary to expand institutional capacity to deliver competent persons	DHET	2017/04/25	2020/04/21	156
7.6	Source funding for learners to be enrolled on programmes at centres of specialisation and enroll learners to develop knowledge and practical learning competencies inclusive of placing learners where necessary at international learning institutions (e.g., Vet learners in aquatic disease)	DHET, SETAs, NSF, DoL (UIF)	2017/04/25		Ongoing
7.7	Source funding for learners to be registered on programmes at workplaces utilising proposed Workplace Base Learning Programme Regulations with learners registered at SETAs or national registration centres.	DHET, SETAs, NSF, DoL (UIF)	2017/04/25		Ongoing
7.8	Implement processes to track, trace and monitor the employment and productivity of learners once competent and available for employment in the Oceans sector. (Impact Measurement)	DHET	2017/04/25	2018/04/24	52
8. Undertake an integrated training initiative for DEA, DAFF, EPWP, provincial and local partner staff/volunteers on monitoring, compliance and enforcement					
8.1	Department Human Resource to supply information on skills and qualifications employed in their department	Department HR team	1/10/2015	31/10/2015	4

Initiative 4 – Accelerated capacity-building intervention in ocean governance will support development of these skills (6/11)

No.	Detailed activity	Responsible	Planned start date (dd.mm.yyy y)	Planned start date (dd.mm.yyy y)	Length (weeks)
8.1.1	Identify current courses/programmes/qualifications and their content focus	DAFF T&D, DEA T&D	2015/03/30	2015/04/03	1
8.1.2	Undertake a gap analysis to determine relevance for the integrated training plan	DAFF T&D, DEA T&D	2015/04/06	2015/04/08	0
8.1.3	Develop a training programme report that outlines additional content/programme development and costs to be incorporated into the budget and plan.	DAFF T&D, DEA T&D	2015/04/09	2015/04/10	0
8.1.4	Develop refresher training programme content and structure on cross-cutting enforcement issue	Enforcement TWG	1/12/2015	14/12/2015	2
8.3	Develop new skills booster pilot programme for working for the coast beneficiaries	Enforcement TWG	1/4/2015	30/6/2015	4
8.3.1	Develop a prioritised national training plan and schedule	DAFF, DEA and Enforcement Committee	2015/04/13	2015/04/30	2
8.3.2	Develop a prioritised training schedule that indicates which staff/volunteers and partners will undertake training where, when and how	DAFF T&D, DEA T&D	2015/04/13	2015/04/17	1
8.3.3	Identify current courses/programmes/qualifications and their content focus	DAFF T&D, DEA T&D	2015/03/30	2015/04/03	1
8.4	Undertake a gap analysis to determine relevance for the integrated training plan	DAFF T&D, DEA T&D	2015/04/06	2015/04/08	0
8.4.1	Develop a training programme report that outlines additional content/programme development and costs to be incorporated into the budget and plan.	DAFF T&D, DEA T&D	2015/04/09	2015/04/10	0

Initiative 4 – Accelerated capacity-building intervention in ocean governance will support development of these skills (7/11)

No.	Detailed activity	Responsible	Planned start date (dd.mm.yyy y)	Planned start date (dd.mm.yyy y)	Length (weeks)
8.4.2	Identify the required training providers	DAFF T&D, DEA T&D	4/13/2015	2015/04/15	0
8.4.3	Develop TORs, contractual documents, scope of work and budgets for specialised training developers and providers where required.	DAFF T&D, DEA T&D	4/20/2015	2015/04/29	1
8.4.4	Outline the required material to be shared/developed and their content, form and dissemination	DAFF T&D, DEA T&D	4/20/2015	2015/04/22	0
8.4.5	Develop a monitoring and evaluation tool for partners: date of training , number trained, skills areas trained in and readiness for implementation	DAFF T&D, DEA T&D, GreenMatter	4/22/2015	2015/04/29	1
8.4.6	Finalise plan	DAFF T&D, DEA T&D	4/30/2015	2015/04/30	0
8.5	Submit to Committee, incorporate recommendations/changes and follow protocol to obtain final approval on the Plan, Schedule and Budget	Enforcement Committee	5/1/2015	2015/05/22	3
8.6	Implement training plan	DAFF, DEA and Enforcement Committee	6/1/2015	2018/06/30	161
8.6.1	Contract with specialist training developers and providers	DAFF T&D, DEA T&D	6/1/2015	2015/06/08	1
8.6.2	Develop a communique to targeted partners on the timelines and resources available for implementation and outline their respective roles and responsibilities	DAFF T&D, DEA T&D	6/9/2015	2015/06/10	0
8.6.3	Disseminate M&E tool and engage with targeted stakeholders on the purpose, how to complete it and timelines for feedback.	DAFF T&D, DEA T&D	6/11/2015	2015/06/12	0
8.6.4	Provide support to implementing partners by responding to queries, tracking progress and providing quarterly feedback to the Committee	DAFF T&D, DEA T&D	6/12/2015	2018/06/30	159

Initiative 4 – Accelerated capacity-building intervention in ocean governance will support development of these skills (8/11)

No.	Detailed activity	Responsible	Planned start date (dd.mm.yyy y)	Planned start date (dd.mm.yyy y)	Length (weeks)
8.7	Compliance Committee to track and monitor training progress quarterly producing an annual skills report on progress for the Secretariat	Enforcement Committee	7/1/2015	Ongoing	
9. Training and Capacity Building workshops for the development of National MSP Framework					
9.1	Capacity building workshop facilitated by international MSP expert	Interim Implementation Leader	10/1/2014	6/30/2015	36
9.1.1	Draft ToR for international expert(s) to conduct 2-3 day MSP training workshop	Interim Implementation Leader	10/1/2014	10/30/2014	4
9.1.2	ToR to be approved	Interim Implementation Leader	11/1/2014	11/30/2014	4
9.1.3	Advertise for expressions of interest (EOI)/bids	Interim Implementation Leader	12/1/2015	1/15/2015	4
9.1.4	Acknowledge EOIs/bids received	Interim Implementation Leader	1/15/2015	1/30/2015	4
9.1.5	Collate EOIs/bids and prepare for evaluation	Interim Implementation Leader	2/1/2015	2/28/2015	4
9.1.6	Convene panel to review EOIs	Interim Implementation Leader	2/1/2015	2/28/2015	4
9.1.7	Recommend preferred service provider to Secretariat	Interim Implementation Leader	2/1/2015	2/28/2015	4
9.1.8	Appoint service provider	Interim Implementation Leader	3/1/2015	3/30/2015	4

Initiative 4 – Accelerated capacity-building intervention in ocean governance will support development of these skills (9/11)

No.	Detailed activity	Responsible	Planned start date (dd.mm.yyy y)	Planned start date (dd.mm.yyy y)	Length (weeks)
9.1.9	Service provider to produce draft training course outline	Service Provider	4/1/2015	4/30/2015	4
9.1.10	Research, database management and planning tools; Implementation Leader to approve training course outline	Implementation Leader	4/1/2015	4/30/2015	4
9.1.11	Make necessary logistical arrangements	Implementation Leader	3/1/2015	4/30/2015	8
9.1.12	Conduct MSP training workshop	Service Provider	5/1/2015	5/30/2015	4
9.1.13	Produce training workshop report	Service Provider	6/1/2015	6/30/2015	4
9.2	Develop a workshop schedule and Identify relevant National and International MSP experts workshops	Implementation Leader	7/1/2014	8/30/2014	8
9.2.1	Develop a schedule plan of National and International workshops on MSP discussions	Implementation Leader	7/1/2015	7/30/2014	4
9.2.2	Approval of the workshop schedule plan	Secretariat	8/1/2014	8/30/2014	4
10. Develop DEA Coastal Monitoring Programme (Oceans and Coasts and Environmental Programmes Coastal Projects)					
10.1	Establish Coastal Monitoring Programme within DEA-OC Branch based on needs analysis and legislative mandate	CD: ICM, CD: Research, CD SMS	9/1/2014	10/1/2014	4

Initiative 4 – Accelerated capacity-building intervention in ocean governance will support development of these skills (10/11)

No.	Detailed activity	Responsible	Planned start date (dd.mm.yyy y)	Planned start date (dd.mm.yyy y)	Length (weeks)
10.2	Liaise with Environmental Programmes (EP) for existing EP projects that can be used for coastal monitoring by the branch O&C	CD: ICM, CD: Research, CD SMS and Environmental Protection and Infrastructure Programmes (EPIP)	9/1/2014	10/1/2014	4
10.3	Determine assistance required by EP (Pollution monitoring parameters identified and needs such as compliance monitoring, water quality sampling, identifying illegal structures, logging marine litter data, oil spill alerts, dune rehabilitation, coastal access, illegal driving on the beach, etc..)	CD: ICM, CD: Research, CD SMS and EPIP	9/1/2014	11/1/2014	8
10.4	Allocate responsibility for Budgeting and Implementation of Programme within Branch O&C (incl. purchasing of coastal monitoring equipment, data loggers, water quality monitoring equipment and transport services and lab analyses if National Laboratory not set up and accredited)	CD: ICM, CD: Research, CD SMS and EPIP	9/1/2014	11/1/2015	8
10.5	Incorporate Programme within branch strategic and business plans	CD: ICM, CD: Research, CD SMS	9/1/2014	11/1/2015	8
10.6	Determine Budget capacity training and resources requirements and develop guidelines	CD: ICM, CD: Research, CD SMS and EPIP	9/1/2014	11/1/2015	8
10.7	Conducting awareness training sessions at schools through EPIP programmes	CD: ICM, CD: Research, CD SMS and EPIP	4/1/2015	3/30/2019	On-going
10.8	Determine priority areas of the coast for piloting coastal monitoring programme and implement; first pilot area Port St. Johns for water quality	CD: ICM, CD: Research, CD SMS and EPIP	10/1/2014	30/12/2014	12
10.9	Develop training tools for implementation of the CMP with EP	CD: ICM, CD: Research, CD SMS and EPIP	10/1/2014	3/31/2015	26
10.10	Determine phased implementation of O&C staff for further implementation of the CMP	CD: ICM, CD: Research, CD SMS and EPIP	9/1/2014	11/1/2015	8

Initiative 4 – Accelerated capacity-building intervention in ocean governance will support development of these skills (11/11)

No.	Detailed activity	Responsible	Planned start date (dd.mm.yyy y)	Planned start date (dd.mm.yyy y)	Length (weeks)
10.11	Facilitate collection of data and reports from EP staff at an agreed upon frequency (such as weekly, daily, monthly, bi monthly, quarterly, etc..)	CD: ICM, CD: Research, CD SMS and EPIP	9/1/2014	11/1/2015	8
10.12	Identify and Implement mechanism to input data into Oceans and Coasts Information System	CD: ICM, CD: Research, CD SMS	4/1/2015	7/1/2015	12
10.13	Identify and implement awareness training sessions at schools through EPIP programmes for Port. St Johns	CD ICM; EPIP	4/15/2015	6/30/2015	12
10.14	Review findings of monitoring programmes and develop management or improvement plans for Port. St Johns	CD ICM; CD Research, CD: SMS	7/1/2015	9/30/2015	16

Initiative 5 – Enhanced and Coordinated Enforcement Programme (1/5)

#	Detailed activity	Responsible	Planned start date (dd.mm.yyyy)	Planned start date (dd.mm.yyyy)	Length (weeks)
1. Interim Committee on enhanced and coordinated enforcement programme in the West and Southern region of South Africa					
1.1	Statement of Intent				
1.1.1	Draft a Statement of Intent to be signed by key stakeholders (<i>refer to Initiative 5 slide - TWG on Compliance and Enforcement for stakeholders; draft Statement attached</i>)	DAFF (Branch: Fisheries Management)	4 Aug 2014	30 Aug 2014	4
1.1.2	Stakeholders to send back input	Stakeholders	29 Aug 2014	8 Sep 2014	1
1.1.3	Consolidate inputs into a revised draft and send it back	DAFF (Branch: Fisheries Management)	8 Sep 2014	19 Sep 2014	2
1.1.4	Send back revised draft to stakeholders for consideration and signing	DAFF (Branch: Fisheries Management)	19 Sep 2014	26 Sep 2014	1
1.1.5	Signing of Statement of Intent by all stakeholders	Stakeholders	29 Sep 2014	7 Oct 2014	1
1.2	SOPs				
1.2.1	Draft key Standard Operating Procedures (SOPs) for enhanced enforcement programme (<i>to all affected stakeholders, see Initiative 5 slide; draft SOP attached</i>)	Interim Structure	4 Aug 2014	30 Aug 2014	4
1.2.2	Send out to stakeholders for input	Interim Structure	25 Aug 2014	29 Aug 2014	1
1.2.3	Stakeholders to send back input	Interim Structure	29 Aug 2014	8 Sep 2014	1
1.2.4	Consolidate inputs into a revised draft SOPs	Interim Structure	8 Sep 2014	19 Sep 2014	2
1.2.5	Send back revised SOPs to stakeholders for consideration and approval	Interim Structure	19 Sep 2014	26 Sep 2014	1
1.2.6	Interim Structure for coordinating Departments to prepare final SOPs	Interim Structure	26 Sep 2014	31 Oct 2014	5
1.3	Appointment of Interim Committee				
1.3.1	Identify members of the Interim Committee (<i>draft TOR for Interim Structure attached</i>)	Governance Lab	8 July 2014	11 July 2014	1
1.3.2	Send out invites to identified member Departments to nominate representatives	DAFF (Branch: Fisheries Management)	25 Aug 2014	29 Aug 2014	1
1.3.3	Receive nominees from Departments	DAFF (Branch: Fisheries Management)	15 Sep 2014	26 Sep 2014	2
1.3.4	Confirm members of the Interim Committee	DAFF (Branch: Fisheries Management)	29 Sep 2014	3 Oct 2014	1
1.4	First Meeting - Focus on SOPs and TORs				
1.4.1	DAFF to send out notice for the first meeting of the Interim Committee (<i>stakeholders invited as per of Statement of Intent</i>) - 1 week advance notice	DAFF (Branch: Fisheries Management)	6 Oct 2014	10 Oct 2014	1
1.4.2	Circulate SOPs, TORs for Interim Committee and Permanent Structure and the 3-Feet Plan - 1 weeks advance notice	DAFF (Branch: Fisheries Management)	6 Oct 2014	10 Oct 2014	1
1.4.3	First meeting to be convened. Goal of first meeting: SOP to be finalised and agree on meetings schedule, approve and adopt the 3-Feet Plan, including the Pilot Project	DAFF (Branch: Fisheries Management)	27 Oct 2014	07 Nov 2014	2
1.4.4	Pilot Project to start		08 Nov 2014	-	-

Initiative 5 – Enhanced and Coordinated Enforcement Programme (2/5)

#	Detailed activity	Responsible	Planned start date (dd.mm.yyyy)	Planned start date (dd.mm.yyyy)	Length (weeks)
1. Interim Committee on enhanced and coordinated enforcement programme in the West and Southern region of South Africa – CONT.					
1.5	Second Meeting - Focus on MOU and progress of the Pilot Project				
1.5.1	DAFF to call the second meeting of the Interim Committee. DAFF to circulate the draft MOU, Minutes of the first meeting and feedback from the Pilot Project - 1 week advance notice	DAFF (Branch: Fisheries Management)	17 Nov 2014	21 Nov 2014	1
1.5.2	Goal of meeting: Committee to seek approval from their Principals and consider inputs on the draft MOU. Deadline: 1 week	Interim Structure	17 Nov 2014	21 Nov 2014	1
					0
1.6	Third Meeting - Focus on Finalisation of the MOU and progress on the Pilot Project		30 Mar 2015	3 Apr 2015	1
1.6.1	DAFF to call the third meeting of the Interim Committee. DAFF to circulate the draft progress report prior to the meeting - 1 week advance notice	DAFF (Branch: Fisheries Management)	30 Mar 2015	3 Apr 2015	1
1.6.2	Workshop for permanent structure's 3-Feet Plan		06 Apr 2015	24 Apr 2014	
1.6.3	Committee to assess progress made thus far, prepare Exit Report (hand-over) and submission of signed MOUs	Interim Structure	24 Apr 2015	07 May 2015	2
1.7	Enforcement Pilot Project				
	Start Up Process - Establish Pilot Project	Interim Structure			
1.7.1	Draft and Sign off the Pilot Project Mandate - DAFF to table the Pilot Project Mandate to the committee (The pilot project will allow access to AIS, LRIT, Environment pollution information and expertise, Access to DAFF vessels, human capacity at agreed scheduled time from September 2014-April 2015), DST systems, infrastructure, DEA human capacity and SANDF vessels/aircraft to assist when required. The project will derive the following benefits enhanced enforcement, marine domain awareness, information sharing for enforcement effectiveness.	Interim Structure and hand over to DAFF	29 Sep 2014	7 Oct 2014	1
1.7.2	Confirm the Lead - DAFF to confirm the role of the Lead with overall responsibility to communicate the benefits of the projects and offer oversight communication to all stakeholders during the Interim committee duration.	Interim Structure	7 Oct 2014	10 Oct 2014	1
1.7.3	Draft and Finalise the Project Brief - The pilot project will run from November 2014 - April 2015. The pilot will be conducted in the West and Southern regions of South Africa. The pilot operation scope will cover from the territorial waters to the EEZ. DAFF will provide the vessels, schedule for the vessels, VMS access and inspectors. SAMSA to provide AIS, LRIT, Surveyors, Pollution Systems oversight. DEA to provide marine environment inspectors, pollution experts, DST to provide other system infrastructure. All departments will self-fund the provision of these services. The major benefits will be coordinated enforcement, increase ocean visibility, overall awareness and response on the maritime domain, SANDF to maintain its operational capacity to assist in the enforcement environment.	Interim Structure	7 Oct 2014	10 Oct 2014	1

Initiative 5 – Enhanced and Coordinated Enforcement Programme (3/5)

#	Detailed activity	Responsible	Planned start date (dd.mm.yyyy)	Planned start date (dd.mm.yyyy)	Length (weeks)
1. Interim Committee on enhanced and coordinated enforcement programme in the West and Southern region of South Africa – CONT.					
1.7.4	Confirm the Project Manager - DAFF to appoint Project Manager. Project Manager will assist in the coordination of the work, communicate project issues, risks and assist with managing any change control within the scope of the project.	DAFF (Branch: Fisheries Management)	7 Oct 2014	10 Oct 2014	1
1.7.5	Capture and review Lessons Learnt - DAFF to lead in reviewing lessons learnt from the current arrangements such as MRCC, DAFF-DEA agreement. The lessons will be used by the Project Manager in the support management of the pilot project	Project Manager	7 Oct 2014	10 Oct 2014	1
1.7.6	Appoint Project Management Team - Project Manager to appoint a project support team (if deemed necessary). The team to confirm availability and accept the roles and responsibilities. Project support to give administration support such as communication, capturing issues and risks	Project Manager	7 Oct 2014	10 Oct 2014	1
Initiate Process					
1.7.7	Authority to Initiate Project - Project Manager to get confirmation from the stakeholders to kick start the project	Project Manager	27 Oct 2014	07 Nov 2014	2
1.7.8	Prepare the project documents -Project Manager to create a risk, communication and issues logs. Project manager to provide appropriate levels of controls. The logs/plans will discussed in the Interim committee meetings	Project Manager	27 Oct 2014	07 Nov 2014	2
Manage Delivery					
1.7.9	Manage Product delivery, stakeholders - Project Manager to communicate risks, issues, controls with stakeholders through emails and document such for reporting to the Interim Structure meetings. The Project Manager will also report any key constraints (resources, etc.) issues in achieving set milestones.	Project Manager	17 Nov 2014	21 Nov 2014	1
1.7.10	Monitor and Control Progress - Project Manager to monitor work in progress against project milestones and report variances and reasons to the Interim committee through agreed communication channels(e-mail and meetings). Project Manager will prepare the exit report and the Lead will sign off	Project Manager	21 Nov 2014	3 Apr 2015	18
1.7.11	Authorise the Next Stage - Interim Committee review and approve the project Exit Report (see <i>draft attached</i>). Interim committee will sign off on the Project Close off.	Interim structure	3 Apr 2015	31 May 2015	
Close					
1.7.12	Authorise Project Closure - Interim committee agree on the procedure of handing over the Pilot Project Exit Report to the Technical Reference Working Group. The hand-over period and activities are agreed and communicated to all stakeholders by May 2015.	Interim structure	3 Apr 2015	31 May 2015	8

Initiative 5 – Enhanced and Coordinated Enforcement Programme (4/5)

#	Detailed activity	Responsible	Planned start date (dd.mm.yyyy)	Planned start date (dd.mm.yyyy)	Length (weeks)
1. Interim Committee on enhanced and coordinated enforcement programme in the West and Southern region of South Africa – CONT.					
1.8	MOU				
1.8.1	Drafting of salient points for an MOU	Governance Lab	4 Aug 2014	8 Aug 2014	1
1.8.2	Drafting of an MOU (<i>see draft attached</i>)	Sohana Goordeen (DAFF - Fisheries Legal Support)	11 Aug 2014	22 Aug 2014	2
1.8.3	Circulate for inputs	DAFF (Branch: Fisheries Management)	25 Aug 2014	29 Aug 2014	1
1.8.4	Receive inputs	DAFF (Branch: Fisheries Management)	01 Sep 2014	31 Oct 2014	4
1.8.5	Revise draft MOU based on inputs	DAFF (Branch: Fisheries Management); Interim Structure (in its second meeting)	3 Nov 2014	14 Nov 2014	2
1.8.6	Approval/endorsement of MOUs	Interim Structure	1 Dec 2014	30 April 2015	20
1.9	Fourth Meeting - De-briefing of the Technical Working Group				
	DAFF to call the final meeting of the Interim Committee. DAFF to circulate the Pilot Project Exit report and the endorsed MOU prior to the meeting - 2 weeks advance notice. The Interim Structure will de-brief the Technical Working Group and hand-over the Exit Report and the MOU.	DAFF (Branch: Fisheries Management); Interim Structure	07 May 2015	14 May 2014	2
2. Establish a Compliance and Enforcement Working Group that will monitor compliance and enforcement in the Ocean space as part of the broader Governance structure					
2.1	Identify departments, entities or directorates who will serve on the Compliance and Enforcement Working Group (<i>draft TORs for Permanent Structure attached</i>)	DAFF (Branch: Fisheries Management)	01 Sep 2014	01 Oct 2014	4
2.2	DAFF to approve draft Terms of Reference for the Compliance and Working Group and consult with identified stakeholders	DAFF (Branch: Fisheries Management)	01 Dec 2014	28 Feb 2015	13
2.3	Prepare and issue invitations to identified members to serve on the Compliance and Enforcement Working Group	DAFF (Branch: Fisheries Management)	01 Mar 2015	15 Mar 2015	2
2.4	Invited members to respond and confirm their acceptance of their nominations to serve on the Committee	Invited Members	15 Mar 2015	31 Mar 2015	2
2.5	The Oceans Inter-ministerial Committee's Secretariat issue letters to confirm appointment of the Compliance and Enforcement Working Group members	OIMC Secretariat	01 Apr 2015	30 Apr 2015	4
2.6	Convene the first meeting of the Compliance and Enforcement Working Group	Secretariat	01 May 2015	31 May 2015	4
2.7	Adopt Terms of Reference for the Compliance and Enforcement Working Group (<i>draft TORs for Permanent Structure attached</i>)	C&E Working Group	01 Jun 2015	30 Jun 2015	4

Initiative 5 – Enhanced and Coordinated Enforcement Programme (5/5)

#	Detailed activity	Responsible	Planned start date (dd.mm.yyyy)	Planned start date (dd.mm.yyyy)	Length (weeks)
3. Undertake a collaborative study to assess the gaps in compliance, enforcement and current capabilities					
3.1	Develop Terms of Reference for the study to undertake a collaborative initiatives and work plan	C&E Working Group	01 May 2015	01 Jun 2015	4
3.2	Prepare introductory circular to Government depts and key stakeholders setting out reasons for the study and development of the work-plan and request information on existing capabilities	C&E Working Group	01 May 2015	01 Aug 2015	13
3.3	Receive inputs from departments and stakeholders	C&E Working Group	01 Aug 2015	31 Aug 2015	4
3.4	Study to be completed: 1) Identify all relevant conventions, acts and policies governing activities taking place in the marine environment as well as Permit Conditions relating to activities to be monitored, 2) Undertake collaborative study by the Task Team established under the C&E Working Group, 3) Identify all spatial areas and activities that require monitoring, 4) Unpacking the findings of the capacity audit study to inform the optimisation of coordination and planning.	C&E Working Group	31 Aug 2015	30 Nov 2015	12
3.5	Analyse information inputs from the study with regards to trends, assets, modus operandi, and resources. Prepare comprehensive stakeholder map of all Departments, and stakeholders indicating enforcement capacities and identified gaps.	C&E Working Group	30 Nov 2015	15 Dec 2015	2
4. Develop a work-plan and coordinate the optimisation of inter-departmental compliance and enforcement functions					
4.1	Convene meeting of Compliance and Enforcement Working Group to discuss comprehensive schedules and formulate a Work-Plan for revised law enforcement and sharing of platforms.	C&E Working Group	16 Jan 2016	30 Jan 2016	2
4.2	Circulate draft Work Plan and request inputs from Depts and stakeholders	C&E Working Group	30 Jan 2016	28 Feb 2016	4
4.3	Revise the Draft Work - Plan based on received inputs	C&E Working Group	28 Feb 2016	15 Mar 2016	2
4.4	Work-Plan completed	C&E Working Group	15 Mar 2016	20 Mar 2016	1
4.5	Implementation of Work-Plan: 1) Identify and compile a report on common infringements and sanctions (processing of set schedules via dispatching to execution), 2) Recommend to the Oceans Inter Ministerial Committee/Secretariat possible or appropriate changes and amendments to various legislated roles, responsibilities and functions of different role players and capability needs for integrated enforcement, 3) Provisions of Acts that require amendment/changes are delegated to relevant authorities for consideration	C&E Working Group	21 Mar 2016	30 Nov 2016	36
4.6	Procurement of IT specialist for systems interface and annual maintenance thereof	C&E Working Group	21 Mar 2016	30 Nov 2016	36
4.7	Bi-Annually review of Work-Plans	C&E Working Group	30 Sep 2016	31 Mar 2017	26

Initiative 6 – Establishing an ocean and coastal information management system and extending oceans and coasts earth observation capabilities (1/7)

#	Detailed activity	Responsible	Planned start date (dd.mm.yyy y)	Planned start date (dd.mm.yyy y)	Length (weeks)
Establish Earth Observation Technology Capacity for SA EEZ and Extended Continental Shelf by 2019/20					
1.1	Engage with sector departments and DST on information and user requirements (To be undertaken by Research, Data Base Management and Planning Tools working group of Secretariat, including DST. A sub-group should but set-up for EO led by DST. DST to nominate responsibility manager for Phakisa Ocean initiatives)	OG Secretariat	01/03/2015	01/05/2015	9
1.2	Synthesis of user requirements, system specification analysis and collaborative operational structure	OG Secretariat	15/03/2015	15/04/2015	4
1.3	Map out existing capabilities in EO Technology for Oceans and Coasts	DST	01/04/2015	30/04/2015	4
1.4	Develop roadmap of required capabilities and decision support tools. This roadmap will knowledge products required for MSP and sector departments, and the timetable for which these can be delivered by the Information System and EO capabilities.	DST-CSIR	01/05/2015	30/06/2015	9
1.5	Engage with DST and Sector Departments to determine costs and prepare multi-year budget as per collaborative systems requirements	Secretariat, DEA, DST, Sector Departments	30/06/2015	31/07/2015	4
1.6	Incorporate budget into relevant Department Budget such as DST; DEA; DAFF; DOT; DoD; DWA	OG Secretariat and Sector Departments, DST	31/07/2015	30/09/2015	9
1.7	Establish CoE and Initiate earth observation capability research and Human Capital development as per approved annual budgets. (DST to lead the application for the CoE through the established process. DST has detailed manual on creating CoEs. Can be attached to report.)	OG Secretariat/DST	01/08/2015	28/03/2016	34
1.8	Maintain registry of on-going R&D outputs	OG Secretariat	ongoing	ongoing	ongoing

Initiative 6 – Establishing an ocean and coastal information management system and extending oceans and coasts earth observation capabilities (2/7)

#	Detailed activity	Responsible	Planned start date (dd.mm.yyy y)	Planned start date (dd.mm.yyy y)	Length (weeks)
1.9	Develop and agree on transfer methodology from R&D to operations	OG Secretariat; DEA; CoE	To be defined during planning of the roadmap for delivery of knowledge products/applications.	To be defined during planning of the roadmap for delivery of knowledge products/applications.	To be defined during planning of the roadmap for delivery of knowledge products/applications.
1.10	Year 1 capability development as per the road map. The intention here is to demonstrate proof of concept for these knowledge products/tools	CoE	01/10/2016	30/09/2017	51
	Oil Slick identification and tracking				
	Maritime oceanographic products				
	Ships in MPAs identification and tracking - pilot sites				

Initiative 6 – Establishing an ocean and coastal information management system and extending oceans and coasts earth observation capabilities (3/7)

#	Detailed activity	Responsible	Planned start date (dd.mm.yyyy)	Planned start date (dd.mm.yyyy)	Length (weeks)
1.11	Year 2 Capability development as per road map (subsequent years can include new capabilities or refining initial 4 capabilities from Year 1)	CoE	01/10/2017	30/09/2018	51
	Harmful algae bloom identification				
	Ships in MPAs identification and tracking broader EEZ				
	Dark ship target identification and tracking				
1.12	Year 3 Capability development as per Road Map	CoE	01/10/2018	30/09/2019	51
1.13	Year 4 Capability development as per Road Map	CoE	01/10/2019	30/09/2020	51
Delivering the national oceans and coasts information system by 2019/20					
2.1	Create Project Steering Committee for project oversight (Early creation of this group is essential to meet the ambitious targets. Secretariat will eventually oversee this function, which will be a sub-group of the Research and Planning Tools working group.)	SITA; DEA-OC; DST-CSIR- Meraka	01/09/2014	30/09/2014	4
2.2	Incorporate and finalise sector department knowledge products requirements in system design initiated by DEA/SITA and DST)	DEA-OC; DST-CSIR and SITA	01/09/2014	01/11/2014	9
2.3	Finalise System Development Project Plan and Budget for 5 years 2014 to 2019 and submit MTEF within DST and DEA (Annual targets to be determined)	DEA-OC; DST-CSIR and SITA	01/09/2014	01/11/2014	9
2.4	Conclude Contracting for development of the system between SITA, DEA; DST plus SANSA if required	DEA-OC; DST-CSIR, SANSA and SITA	01/09/2014	31/01/2015	22
2.5	Initiate Development of the System at DST-CSIR if possible with reprioritisation of budget in 2014/15	DEA-OC; DST-CSIR and SITA	01/11/2014	31/03/2015	22
2.6	OG Secretariat to determine requirements to link to information system and knowledge products. Specific deliverable here must be to undertake a process for describing standardised formats for different parameters. This process can run in parallel and may take 12 to 16 weeks. (Link to Secretariat TORs)	DEA-OG Secretariat	01/06/2015	01/08/2015	9

Initiative 6 – Establishing an ocean and coastal information management system and extending oceans and coasts earth observation capabilities (4/7)

#	Detailed activity	Responsible	Planned start date (dd.mm.yyyy)	Planned start date (dd.mm.yyyy)	Length (weeks)
2.6	OG Secretariat to coordinate these inputs for consideration into DEA/DST budgets	DEA-OG Secretariat	01/09/2015	30/11/2015	13
2.7	Development of Information system incrementally by 2019/20	OG Secretariat; DST-CSIR Meraka	01/09/2014	01/03/2020	283
	2.7.1 Requirements for finalisation and architectural design	DST-CSIR	01/04/2015	30/08/2015	21
	2.7.2 Implementation of spatial core infrastructure	DST-CSIR	01/07/2015	30/11/2015	21
	2.7.3 Requirements and design of user interface (web and/or mobile)	DST-CSIR	01/04/2015	30/05/2015	9
	2.7.4 Implementation of 1st set of decision support tools	DST-CSIR	01/04/2016	30/03/2017	51
	2.7.5 Design and Implementation of web site and web content	DST-CSIR	01/08/2015	30/03/2016	34
	2.7.6 Implementation of 2nd set of decision support tools	DST-CSIR	01/04/2017	30/03/2018	51
	2.7.7 Refinement of spatial core infrastructure	DST-CSIR	01/04/2017	30/07/2017	17
	2.7.8 Testing and commissioning	DST-CSIR	01/04/2016	30/07/2016	17
2.8	Decision on hardware and network implementation	DEA-DST-Cyber Infrastructure	01/11/2015	30/11/2015	4
2.9	Identify hosting provider for system	OG Secretariat; DST-CSIR Meraka	01/02/2016	30/03/2016	9
2.10.	Define SLA for the system hosting	OG Secretariat; DST-CSIR Meraka	01/02/2016	30/03/2016	9
2.11	System Operations (2017-2022)	Host-DST-CSIR Meraka	01/09/2017	01/03/2022	232
2.12	Negotiation and Implementation of Satellite Data hosting with SANSA	OG Secretariat; DST-CSIR Meraka; SANSA	01/11/2014	30/11/2014	4
2.9	Identify Hosting Provider for System	OG Secretariat; DST-CSIR Meraka	01/02/2016	30/03/2016	9
2.10.	Define SLA for the system hosting	OG Secretariat; DST-CSIR Meraka	01/02/2016	30/03/2016	9

Initiative 6 – Establishing an ocean and coastal information management system and extending oceans and coasts earth observation capabilities (5/7)

#	Detailed activity	Responsible	Planned start date (dd.mm.yyyy)	Planned start date (dd.mm.yyyy)	Length (weeks)
2.11	System operations (2017-2022)	Host-DST-CSIR Meraka	01/09/2017	01/03/2022	232
2.12	Negotiation and implementation of satellite data hosting with SANSA	OG Secretariat; DST-CSIR Meraka; SANSA	01/11/2014	30/11/2014	4
2.9	Identify hosting provider for system	OG Secretariat; DST-CSIR Meraka	01/02/2016	30/03/2016	9
2.10.	Define SLA for the system hosting	OG Secretariat; DST-CSIR Meraka	01/02/2016	30/03/2016	9
2.11	System Operations (2017-2022)	Host-DST-CSIR Meraka	01/09/2017	01/03/2022	232
2.12	Negotiation and implementation of satellite data hosting with SANSA	OG Secretariat; DST-CSIR Meraka; SANSA	01/11/2014	30/11/2014	4
2.11	System Operations (2017-2022)	Host-DST-CSIR Meraka	01/09/2017	01/03/2022	232
2.12	Negotiation and implementation of satellite data hosting with SANSA	OG Secretariat; DST-CSIR Meraka; SANSA	01/11/2014	30/11/2014	4
Establish and implement the data(/ earth observation) infrastructure required for the OCIS					
3.1	Define satellite sensor portfolio	DEA; DST-CSIR; SANSA; DAFF; SAMSA;	01/02/2015	30/05/2015	17
3.2	Develop and agree on data policy (sharing principles) for ocean and coast system (critical step to identify what data will be input into info system, rule for sharing and costing, especially for data from state agencies, and appropriate recognition for data originators)	DEA; DST-CSIR; SANSA; DAFF; SAMSA;	01/02/2016	30/04/2016	13
3.3	Define minimum baseline datasets/fundamental datasets	DEA; DST-CSIR; SANSA; DAFF; SAMSA;	01/02/2015	30/05/2015	17
3.4	Negotiate SAR multi-user government data agreement with RadarSat	OG Secretariat; DEA; DST; SANSA	01/02/2015	30/05/2015	17

Initiative 6 – Establishing an ocean and coastal information management system and extending oceans and coasts earth observation capabilities (6/7)

#	Detailed activity	Responsible	Planned start date (dd.mm.yyyy)	Planned start date (dd.mm.yyyy)	Length (weeks)
3.5	Finalise sentinel data agreements with European Space Agency	DST-SANSA	01/02/2015	30/06/2015	21
3.6	Initiate ocean robotics requirements study	DEA; DST-CSIR; DAFF; SAMSA;	01/07/2015	30/08/2015	9
3.7	Implement ocean robotics monitoring as required	DST-CSIR;	01/04/2016		
3.8	Integrate existing in situ sensor networks	DEA; DST-CSIR Meraka;	01/04/2016	30/03/2017	51
3.9	Do gap analysis on data sets (on going activity)	DEA; DST CSIR Meraka; DAFF; SAMSA; SANSA	01/02/2015	30/03/2015	9
3.1	EOSat1 co-fund	SANSA	01/04/2015	30/03/2020	257
	Mission definition refinement	SANSA	TBD* This is determined by the satellite mission plan	TBD* This is determined by the satellite mission plan	
	Sensor design sign-off	SANSA	TBD* This is determined by the satellite mission plan	TBD* This is determined by the satellite mission plan	
	Simulation data analysis	SANSA	TBD* This is determined by the satellite mission plan	TBD* This is determined by the satellite mission plan	
3.11	NanoSat-based application experimental development	DEA/DST/CPUT	01/04/2015	30/03/2018	154
	3.11.1 Mission definition	DEA/DST/CPUT	01/04/2015	01/08/2015	17
	3.11.2 Concept designs	DEA/DST/CPUT	01/08/2015	01/07/2016	47
	3.11.3 Prototype/lab model	DEA/DST/CPUT	01/04/2016	30/03/2017	51
	3.11.4 Engineering model	DEA/DST/CPUT	01/04/2018	30/03/2019	51
3.12	Modelling capability for forecasting data	DST CSIR; Univ.	01/04/2015	30/03/2016	51

Initiative 6 – Establishing an ocean and coastal information management system and extending oceans and coasts earth observation capabilities (7/7)

#	Detailed activity	Responsible	Planned start date (dd.mm.yyyy)	Planned start date (dd.mm.yyyy)	Length (weeks)
Management, Governance and Communications					
4.1	Establish programme management team for oceans and coasts information systems and earth observation technologies (Function of the Secretariat when set up, relate to 2.1, which this group will oversee senior officials from key departments ,e.g. ,DEA, DST; DPME; DAFF)	DEA; DST CSIR Meraka; etc.	01/09/2014	30/09/2014	4
4.2	Set up communications plan and implement	OG Secretariat	01/11/2014	30/01/2015	13
4.3	Define reporting requirements and implement	OG Secretariat	01/11/2014	30/01/2015	13
4.4	Establish cost benefit analysis team	OG Secretariat; DEA; DST; CSIR	01/04/2015	30/03/2020	257

Detail for Section 3.3

NB Anticipated that most raw EO data will be free and minimally constrained wrt re-distribution, other than surveillance SAR, AIS and very high resolution optical

- 3.2.1 Identification of all raw and processed data streams from sensor portfolio & other sources
- 3.2.2 Development of constraint matrix: cost, licensing and re-distribution/attribution per data stream
- 3.2.3 Mapping of State Agency user needs to constrain matrix to establish costing assignment mechanisms
- 3.2.4 Establishment of quantitative accounting mechanism to derive ongoing user/product access data for incorporation into Activity 4

Initiative 7: National Oceans and Coasts Pollution Monitoring Programme (1/4)

#	Detailed activity	Responsible	Planned start date (dd.mm.yyyy)	Planned start date (dd.mm.yyyy)	Length (weeks)
1. Develop DEA Coastal Monitoring Programme (Oceans and Coasts and Environmental Programmes Coastal Projects)					
1.1	Establish Coastal Monitoring Programme within DEA-OC Branch based on needs analysis and legislative mandate	CD: ICM, CD: Research, CD SMS	01.09.2014	01.10.2014	4
1.2	Liaise with Environmental Programmes (EP) for existing EP projects that can be used for coastal monitoring by the branch O&C	CD: ICM, CD: Research, CD SMS and Environmental Protection and Infrastructure Programmes (EPIP)	01.09.2014	01.10.2014	4
1.3	Determine assistance required by EP (Pollution monitoring parameters identified and needs such as compliance monitoring, water quality sampling, identifying illegal structures, logging marine litter data, oil spill alerts, dune rehabilitation, coastal access, illegal driving on the beach, etc..)	CD: ICM, CD: Research, CD SMS and EPIP	01.09.2014	01.11.2014	8
1.4	Allocate responsibility for budgeting and implementation of Programme within Branch O&C (incl. purchasing of coastal monitoring equipment, data loggers, water quality monitoring equipment and transport services and lab analyses if National Laboratory not set up and accredited)	CD: ICM, CD: Research, CD SMS and EPIP	01.09.2014	01.11.2015	8
1.5	Incorporate Programme within Branch Strategic and Business Plans	CD: ICM, CD: Research, CD SMS	01.09.2014	01.11.2015	8
1.6	Determine budget capacity training and resources requirements and develop guidelines	CD: ICM, CD: Research, CD SMS and EPIP	01.09.2014	01.11.2015	8
1.7	Determine priority areas of the coast for piloting coastal monitoring programme and implement; first pilot area Port St. Johns for water quality	CD: ICM, CD: Research, CD SMS and EPIP	01.10.2014	30.12.2014	12
1.8	Develop training tools for implementation of the CMP with EP	CD: ICM, CD: Research, CD SMS and EPIP	01.10.2014	31.03.2015	26
1.9	Determine phased implementation of O&C staff for further implementation of the CMP	CD: ICM, CD: Research, CD SMS and EPIP	01.09.2014	01.11.2015	8
1.10	Facilitate collection of data and reports from EP staff at an agreed upon frequency (such as weekly, daily, monthly, bi monthly, quarterly, etc..)	CD: ICM, CD: Research, CD SMS and EPIP	01.09.2014	01.11.2015	8
1.11	Identify and implement mechanism to input data into oceans and coasts information system	CD: ICM, CD: Research, CD SMS	01.04.2015	01.07.2015	12

Initiative 7: National Oceans and Coasts Pollution Monitoring Programme (2/4)

#	Detailed activity	Responsible	Planned start date (dd.mm.yyyy)	Planned start date (dd.mm.yyyy)	Length (weeks)
1. Develop DEA Coastal Monitoring Programme (Oceans and Coasts and Environmental Programmes Coastal Projects) (continued)					
1.12	Identify and implement awareness training sessions at schools through EPIP programmes for Port. St Johns	CD ICM; EPIP	15.04.2015	30.06.2015	12
1.13	Review findings of monitoring programmes and develop management or improvement plans for Port. St Johns	CD ICM; CD Research, CD: SMS	01.07.2015	30.09.2015	16
1.14	Improvement of the programme and expansion to 3 new priority areas	CD ICM; CD Research, CD: SMS	01.04.2015	30.03.2016	52
1.15	Improvement of the programme and expansion to 4 new priority areas	CD ICM; CD Research, CD: SMS	01.04.2016	30.03.2017	52
1.16	Improvement of the programme and expansion to 5 new priority areas	CD ICM; CD Research, CD: SMS	01.04.2017	30.03.2018	52
1.17	Improvement of the programme and expansion to all remaining priority areas in South Africa	CD ICM; CD Research, CD: SMS	01.04.2018	30.03.2019	52
2. Establish National Pollution Laboratory					
2.1	Determine Location for National Pollution Laboratory (NPL), DDG OC adverts and process letters of interest and budget from coastal universities/research institutions	DEA- Branch OC	01.10.2014	31.10.2014	4
2.2	Create detailed budget for NPL and include in DEA budgeting processes	DEA- Branch OC	01.10.2014	31.10.2014	8
2.3	Letters of interest and budget from coastal universities/research institutions received and perused by the DDG	DEA- Branch OC	01.11.2014	31.12.2014	8
2.4	Conclude contracting arrangement with host Institution	DEA; Host Institution	15.01.2015	28.02.2015	6
2.5	Transfer funds to host institution	DEA - CFO	01.03.2015	01.04.2015	8
2.6	Procure laboratory Equipment	Host Institution	01.04.2015	30.10.2015	26
2.7	Appoint Staff at Host Institution for pollution Chemistry Analyses	Host Institution	01.11.2015	31.01.2016	16
2.8	Lab staff to liaise with DEA Branch OC to develop schedule of receiving, processing and reporting samples	DEA- OC and EPIP NPL	01.02.2016	31.03.2016	8
2.9	NPL undertake analyses and report on pollution samples for first coastal monitoring sites for Eastern Cape priority areas	DEA- OC and EP	01.04.2016	31.03.2017	52
2.10	Review lab performance biannually	CD: ICM; CD Research; CD SMS	01.04.2017	30.09.2017	26

Initiative 7: National Oceans and Coasts Pollution Monitoring Programme (3/4)

#	Detailed activity	Responsible	Planned start date (dd.mm.yyyy)	Planned start date (dd.mm.yyyy)	Length (weeks)
3. Establish methodology/approach for setting applicable limits for coastal effluent discharges (continued)					
3.1	Conduct detailed desktop and compliance reviews and stakeholder engagements to determine the status of effluent disposal in SA coastal environment and identify sectors/industry type requiring management/stricter limits for disposal	CD ICM, CD Research	01.09.2014	28.02.2015	26
3.2	Conduct literature reviews on international and national approaches for setting limits into Estuaries, surf zones, off shores and marine protected areas	CD ICM, CD Research	01.10.2014	30.11.2014	8
3.3	Compile a report on at least 3 preferred approaches for setting limits into estuaries, surf zones, off shores and marine protected areas (pros and cons of each approach)	CD ICM, CD Research	01.12.2014	31.01.2015	8
3.4	Conduct stakeholder engagement on the 3 identified approaches to determine best approach for DEA to adopt	CD ICM, CD Research	01.02.2015	31.03.2015	8
3.5	Collate inputs and DEA to modify approach where necessary and DEA to decide on the best approach	CD ICM, CD Research	01.04.2015	30.04.2015	4
3.6	Identify (desktop research) and determine risk posed by quantity and quality of effluent discharged from 2x Aquaculture facilities (or priority sector) into estuaries, surf zones, off shore and/or marine protected areas	CD ICM, CD Research	01.05.2015	30.10.2015	26
3.7	Develop minimum limits for 2x aquaculture effluent discharges based on the established risks per facility (effluent composition)	CD ICM, CD Research	01.11.2015	30.04.2016	26
3.8	Conduct stakeholder consultation on the above limits	CD ICM, CD Research	01.05.2016	30.06.2016	8
3.9	Gazette for public comments	CD ICM, CD Research	01.07.2016	31.10.2016	16
3.10	Consider and Incorporate public comments and draft response	CD ICM, CD Research	01.11.2016	28.02.2017	16
3.11	Adoption of the limits/standards	CD ICM, CD Research	01.03.2017	31.03.2017	4
3.12	Identify (desktop research) and determine at risk posed by quantity and quality of effluent discharged from 2x municipal waste water treatment facilities into estuaries, surf zones, offshore and/or marine protected areas	CD ICM, CD Research	01.04.2017	30.10.2017	26
3.13	Develop minimum discharge limits for the 2x municipal effluent discharges into estuaries, surf zone, or off shore environment (effluent composition)	CD ICM, CD Research	01.11.2017	30.04.2018	26

Initiative 7: National Oceans and Coasts Pollution Monitoring Programme (4/4)

#	Detailed activity	Responsible	Planned start date (dd.mm.yyy y)	Planned start date (dd.mm.yyy y)	Length (weeks)
3. Establish methodology/approach for setting applicable limits for coastal effluent discharges (continued)					
3.14	Conduct stakeholder consultation on the above limits	CD ICM, CD Research	01.05.2018	30.06.2018	8
3.15	Gazette for public comments	CD ICM, CD Research	01.07.2018	31.10.2018	16
3.16	Consider and incorporate public comments and draft response	CD ICM, CD Research	01.11.2019	28.02.2018	16
3.17	Adoption of the limits/standards	CD ICM, CD Research	01.03.2019	31.03.2019	4

Initiative 8 – Creation of an MPA representative network (1/4)

#	Detailed activity	Responsible	Planned start date (dd.mm.yyy y)	Planned start date (dd.mm.yyy y)	Length (weeks)
1. Technical report detailing the proposal for a MPA Network with boundaries, objectives, key stakeholders as well as a consultation process, approved by DG:DEA					
1.1	Finalising the boundaries for a set of new MPAs, based on existing planning documents and spatial data.	Expert work group in lab, with outside experts contributing	21.07.2014	01.08.2014	2
1.2	Overall rationale of network, and specific boundaries, objectives and incompatible activities discussed with other labs and feedback received. A record of all syndications is kept and will be an Annexure to the technical document.	MPA work stream to keep record of all discussions, syndications	21.07.2014	01.08.2014	2
1.3	Identify and consult with key experts and stakeholders representing major sector interests. A record of all consultation is kept and will be an Annexure to the technical document.	By lab members – some internally and other at different centres	21.07.2014	06.08.2014	3
1.4	Description main of biodiversity attributes of each area, objectives of the MPAs and network, and incompatible activities	Expert work group in the lab, with outside experts contributing	21.07.2014	07.08.2014	3
1.5	Technical report on the proposed MPA network. This will set out boundaries, objectives for the overall network and for each MPA, a habitat-activities matrix indicating activities which should be prohibited and those which could be compatible in certain zones.	Dr Kerry Sink, SANBI, based on expert work in lab	21.07.2014	13.08.2014	4
1.6	Produce draft scoping materials for stakeholder engagement	MPA work stream	21.07.2014	13.08.2014	4
1.7	Consolidation in lab of lab documentation – including stakeholder comments, and all required templates.	MPA work stream	21.07.2014	14.08.2014	4

Initiative 8 – Creation of an MPA representative network (2/4)

#	Detailed activity	Responsible	Planned start date (dd.mm.yyy y)	Planned start date (dd.mm.yyy y)	Length (weeks)
2. Publish intention to declare an MPA network in the Government Gazette, for public consultation, with appropriate awareness campaign					
2.1	Approval by DG of technical report (with MPA network proposal) and proposed scoping process for undertaking scoping prior to gazetting intention to declare.	Ms Nosipho Ngcaba, DG DEA	15.08.2014	15.08.2014	0
2.2	Approval of the lab outputs by Government, in particular the Protection and Governance proposal dealing with expansion of an MPA network and the process to take this forward.	Government of South Africa	15.08.2014	15.09.2014	4
2.3	Minister to announce at CBD (October) and WPC (November)	Ms Nosipho Ngcaba, DG DEA (Lead); Xola Mkefe (DEA)	01.10.2014	30.11.2014	8
2.4	Focussed scoping and consultation as required. This includes a presentation at the DAFF Management working group, engagement with PASA and DMR	X Mkefe (DEA) (Lead) and DEA colleagues from CD: OCM and CD: Research, K Sink (SANBI), B. Semoli (DAFF), T. Livingstone, (EKZNW), Makgotha Machaka (DMR)	01.10.2014	30.10.2014	4
2.5	Legal drafting/checking of for comment declaration notices and regulations, including setting out arrangements to receive comments	Adv Radia Razack, Director Legal Services component servicing the Branch Oceans and Coasts, DEA	15.09.2014	15.12.2014	13
2.6	Prepare submission to Minister, motivating in the context of Phakisa for the need to create a Network of MPAs for sustainable development. This submission will also describe the scoping process undertaken and outline the process forward, including consultation, and the process to evaluate comments received after gazetting, which would result final MPA proposals being made for declaration. It would also indicate future management responsibilities for each MPA.	X Mfeke (Lead), Alan Boyd DEA, K Sink, SANBI, iSimangaliso, SAN Parks, Provinces	01.10.2014	15.12.2014	9
2.7	Request Ministers approval to gazette MPAs for comment	A. Share, DEA	15.12.2014	15.02.2015	9
2.8	Dedicated media and MPA awareness initiative launched to coincide with gazetting of MPA network for comment. This will focus on the overall need for the network and how the DEA has approached the matter. It will also give advance notice about the consultation process.	DEA Communications (Lead), SANBI, WWF, iSimangaliso, SAN Parks, Provinces	01.01.2015	31.03.2015	9
2.9	Publish intention to declare an MPA network in the Government Gazette including a call for comment	X. Mkefe, DEA	01.03.2015	31.03.2015	4
2.10	Minister to send notices to other relevant Ministers for comment	A. Share, DEA	01.03.2015	31.03.2015	9

Initiative 8 – Creation of an MPA representative network (3/4)

#	Detailed activity	Responsible	Planned start date (dd.mm.yyy y)	Planned start date (dd.mm.yyy y)	Length (weeks)
3. Stakeholder consultation process, and preparation of revised MPA network proposal					
3.1	Consultation period of 60 days is supported by holding workshops with communities, local stakeholders, provincial and municipal role-players. Professional and neutral facilitators will be used, who could come from the private sector or government. The specific management agency, who would manage the MPA may play a prominent role. The main purpose of the workshops is to inform and empower people to submit comments.	X Mkefe DEA (Lead), K Sink, SANBI, iSimangaliso Wetland Park Authority, SAN Parks, Provinces	01.04.2015	31.05.2015	9
3.1.2	Hold at least one national consultation workshops for O&G, mining, fishing and other large industries for offshore component of the MPA network in the 60day consultation window. The main purpose of the workshops is to inform and enable people to submit written comments.	X Mkefe DEA (Lead), and DEA colleagues from CD: OCM and CD: Research, K Sink, SANBI, SAN Parks, Provinces	01.04.2015	31.05.2015	9
3.2	Receive all comments (including comments from other organs of state), acknowledge, collate in June	X Mkefe DEA (Lead), K Sink, SANBI, SAN Parks, Provinces	01.04.2015	30.06.2015	13
3.3	Consideration of comments received, make recommendations to resolve issues that arise. Prepare comments response table.	X Mkefe (Lead), Alan Boyd, OCM, DEA, K Sink, SANBI, SAIAB, iSimangaliso, SAN Parks, Provinces	01.07.2015	30.07.2015	4
3.4	Revise and improve MPAs based on consideration of comments, in particular boundaries and zonation. May include stakeholder or sector engagement. May need high resolution mechanisms.	X Mkefe (Lead), A Boyd DEA, OCM DEA, K Sink, SANBI, SAN Parks, Provinces	01.08.2015	31.10.2015	13
3.5	Legal drafting/checking of declaration notices and regulations (get additional support)	Adv Radia Razack	01.10.2015	31.12.2015	13
4. Declaration of the MPA network					
4.1	Submission to minister requesting declaration of MPAs. Attached will be final draft declaration notices and regulations, and supporting annexures including scope and progress in the development of management plans.	A. Share, DEA	01.12.2015	31.12.2015	4
4.2	Approved by Minister	Minister, DEA	01.01.2016	15.02.2016	6
4.3	Develop media packs and public communications to accompany declaration	Chief Director, DEA Communications, Pretoria	01.02.2016	31.03.2016	4
4.4	Publish network of MPAs in government gazette	Xola Mkefe (Lead), Ms Risha Persad Govender, DEA	15.02.2016	31.03.2016	6

Initiative 8 – Creation of an MPA representative network (4/4)

#	Detailed activity	Responsible	Planned start date (dd.mm.yyy y)	Planned start date (dd.mm.yyy y)	Length (weeks)
5. Management plans and arrangements for implementation of the newly proclaimed MPAs in place					
5.1	Initial preparation of draft management plans, so key implications can be included in Ministerial submission	X Mkefe (DEA) (Lead), SANParks, iSimangaliso, Provinces	01.10.2015	31.12.2015	13
5.3	Complete draft management plans so that there is a basis to direct implementation immediately after gazetting	X Mkefe (DEA) (Lead), SANParks, iSimangaliso, Provinces	01.01.2016	31.03.2016	13
5.4	Finalise management plans based on consultation with stakeholders	X Mkefe (DEA) (Lead), SANParks, iSimangaliso, Provinces	01.04.2016	31.01.2017	43
5.5	Approval of management plans (PAA requirement is 12 months after declaration)	Minister, DEA	31.10.2017	31.03.2017	9
5.1	Initial preparation of draft management plans, so key implications can be included in Ministerial submission	X Mkefe (DEA) (Lead), SANParks, iSimangaliso, Provinces	01.10.2015	31.12.2015	13
6. Complete a Protected Area Expansion Plan					
6.1	Collate all information from research programme	Kerry Sink (SANBI), DEA, SAN Parks, Provinces	01.04.2017	30.06.2017	13
6.2	Spatial analysis and planning	Kerry Sink (SANBI), DEA, SAN Parks, Provinces	01.07.2017	30.09.2017	13
6.3	Proposed areas for inclusion in MPA	Kerry Sink (SANBI), DEA, SAN Parks, Provinces	01.10.2017	31.12.2017	13
6.4	Submit Protected Area Expansion Plan for approval to Minister	Xola Mkefe DEA	01.01.2018	01.03.2018	9
6.5	Ministerial approval for implementation	Andre Share	01.03.2018	31.03.2018	4

Initiative 9 – MPA/MSP Discovery, Research and Monitoring Programme (1/5)

#	Detailed activity	Responsible	Planned start date (dd.mm.yyyy)	Planned end date (dd.mm.yyyy)	Length (weeks)
1. ACEP and Phakisa Ocean Cruises					
1.1	Revise existing ACEP call to include Phakisa Ocean cruises. Specifically get text for inclusion on broad objectives for MPA research with an emphasis on expansion.	Angus Paterson (SAIAB) - Lead; Gilbert Siko (DST); Ashley Naidoo (DEA); PHAKISA TEAM	1/8/2014	10/8/2014	1
1.2	Develop High Level MOU of support for both the main funding agencies (DST and DEA)	Angus Paterson (SAIAB) - Develop; Gilbert Siko (DST) - Sign; Ashley Naidoo (DEA) - Sign	1/8/2014	5/8/2014	1
1.3	Finalise open call documentation	Angus Paterson (SAIAB) - Lead; Lynn Erasmus (NRF)	1/8/2014	1/9/2014	4
1.4	Release open call	Lynn Erasmus (NRF)	15/9/2014	1/11/2014	7
1.5	Evaluate submissions	Lynn Erasmus (NRF) - Lead, ACEP Committee (incl. DEA)	1/11/2014	15/11/2014	2
1.6	Optimise submission in conjunction with applicants. This involves research optimisation as well as logistical planning e.g. cruise dates.	Angus Paterson (SAIAB) - Lead; Gilbert Siko (DST); Ashley Naidoo (DEA)	15/11/2014	29/11/2014	2
1.7	MOA with DEA regarding cruise times and availability	Angus Paterson (SAIAB) - Lead; Ashley Naidoo (DEA)	15/11/2014	29/11/2014	2
1.8	Contracting and grant awards to applicants	Lynn Erasmus (NRF) - Lead; Angus Paterson (SAIAB)	1/12/2014	29/1/2015	8
1.9	First coordination meeting (2015)	Angus Paterson (SAIAB) - Lead; DEA, DST, MPA Comm, Chair and participating agencies	1/4/2015	10/4/2015	1
1.1	2015 Annual Report	Angus Paterson (SAIAB) - Lead; DEA, DST and participating agencies	1/4/2016	29/6/2016	13
1.12	2015 Synopsis report on MPA projects within ACEP developed for MPA Steering Committee	Angus Paterson (SAIAB) - Lead; DEA, DST and participating agencies	1/4/2016	29/6/2016	13
1.13	2nd coordination meeting (2016)	Angus Paterson (SAIAB) - Lead; DEA, DST, MPA Comm, Chair and participating agencies	1/4/2016	10/4/2016	1
1.14	2016 Synopsis report on MPA projects within ACEP developed for MPA Steering Committee	Angus Paterson (SAIAB) - Lead; DEA, DST, MPA Comm, Chair and participating agencies	1/4/2017	29/6/2017	13
1.15	2016 Annual Report	Angus Paterson (SAIAB) - Lead; DEA, DST and participating agencies	1/4/2017	29/6/2017	13

Initiative 9 – MPA/MSP Discovery, Research and Monitoring Programme (2/5)

#	Detailed activity	Responsible	Planned start date (dd.mm.yyy y)	Planned end date (dd.mm.yyy y)	Length (weeks)
1. ACEP and Phakisa Ocean Cruises – CONT.					
1.16	3rd coordination meeting (2017)	Angus Paterson (SAIAB) - Lead; DEA, DST, MPA Comm, Chair and participating agencies	1/4/2017	10/4/2017	1
1.17	2017 Synopsis report on MPA projects within ACEP developed for MPA Steering Comm	Angus Paterson (SAIAB) - Lead; DEA, DST and participating agencies	1/4/2018	29/6/2018	13
1.18	2017 Annual Report	Angus Paterson (SAIAB) - Lead; DEA, DST and participating agencies	1/4/2018	29/6/2018	13
2. MPA/MSP Research, Monitoring and Capacity-building Committee					
2.1	Convene Phakisa MPA lab team to develop draft document. Document must include Governance structure, Reporting structure, Members, Funding modality, Priority projects)	Angus Paterson (SAIAB) - Lead; Phakisa Core MPA Lab team	1/8/2014	30/9/2014	9
2.2	Distribute proposal to MPA/MSP researchers at large, collate comments and finalise document	Angus Paterson (SAIAB) - Lead; Alan Boyd (DEA)	1/11/2014	20/11/2014	3
2.3	Elect members through process outlined in 2.1.	Angus Paterson (SAIAB) - Lead; Alan Boyd (DEA)	1/12/2014	15/12/2014	2
2.4	Convene first meeting and agree on priority projects (these would include Milestone 3 and 4 but also cover issues such as SOPs, Data management, Data sharing, linkages with MSP funding, etc.	Angus Paterson (SAIAB) - Lead; MPA/MSP Research Committee members	1/1/2015	30/1/2015	4
2.5	Confirm team to design and oversee Discovery, Research and Monitoring (DRuM) Programme (Milestone 3)	Angus Paterson (SAIAB) - Lead; MPA/MSP Research Committee members	1/1/2015	30/1/2015	4
2.6	Confirm team to undertake scoping exercise for MPA/MSP research 2018- 2030 (Milestone 4)	Angus Paterson (SAIAB) - Lead; MPA/MSP Research Committee members	1/1/2015	30/1/2015	4

Initiative 9 – MPA/MSP Discovery, Research and Monitoring Programme (3/5)

#	Detailed activity	Responsible	Planned start date (dd.mm.yyyy)	Planned end date (dd.mm.yyyy)	Length (weeks)
3. MPA/MSP Discovery, Research, and Monitoring (DRuM) Programme					
3.1	DRuM Team (See 2.5) design DRuM Programme. Includes: research management structure; reporting structure; funding modality; priority research and exploration areas; desktop data collection.	Mandated (DRuM) Programme Oversight team	30/1/2015	30/4/2015	13
3.2	Desktop data collection and analysis of biodiversity (environmental, biological, ecological) for new MPAs for which few data exist	Mandated (DRuM) Programme Oversight team	30/1/2015	30/4/2015	13
3.3	Integrate comments from Gazetting process into programme design (iterative)	Mandated (DRuM) Programme Oversight team	30/1/2015	30/4/2015	13
3.4	Secure funding and confirm funding arrangements between key agencies, e.g., DST and DEA.	Mandated (DRuM) Programme Oversight team	30/1/2015	30/4/2015	13
3.5	Plan and contract logistics e.g. ships time, ROV, etc.	Mandated Oversight team and Platform managers e.g. DEA, SAIAB, SAEON, CSIR, DAFF, etc.	30/4/2014	30/7/2015	64
3.6	Undertake directed call	Lynn Erasmus (NRF)	30/4/2014	30/7/2015	64
3.7	Identify and procure additional equipment	Mandated (DRuM) Programme Oversight team	30/1/2015	30/7/2015	26
3.8	Liaise with Industry regarding Industry platforms and Industry involvement	Mandated (DRuM) Programme Oversight team	30/1/2015	30/7/2015	26
3.9	1st Programme Project co-ordination meeting (end 2015)	Mandated (DRuM) Programme Oversight team	1/11/2015	30/11/2015	4
3.10	Implement Projects (These projects will be defined in 3.1)	Mandated (DRuM) Programme Oversight team	1/3/2016	30/3/2019	159
3.11	Potential project 1 - DEA led dedicated cruises	Mandated (DRuM) Programme Oversight team	1/3/2016	30/3/2019	159
3.12	Potential project 2 - Directed call	Mandated (DRuM) Programme Oversight team	1/3/2016	30/3/2019	159
3.13	Potential project 3 - Industry cooperation project	Mandated (DRuM) Programme Oversight team	1/3/2016	30/3/2019	159
3.14	2nd Programme project coordination meeting (2016)	Mandated (DRuM) Programme Oversight team	1/11/2016	30/11/2016	4
3.15	2016 ERM Programme Annual Report	Mandated (DRuM) Programme Oversight team	1/3/2017	30/3/2017	4
3.16	3rd Programme Project coordination meeting (2017)	Mandated (DRuM) Programme Oversight team	1/11/2017	30/11/2017	4
3.17	2017 ERM Programme Annual Report	Mandated (DRuM) Programme Oversight team	1/3/2017	30/3/2017	4

Initiative 9 – MPA/MSP Discovery, Research and Monitoring Programme (4/5)

#	Detailed activity	Responsible	Planned start date (dd.mm.yyy y)	Planned end date (dd.mm.yyy y)	Length (weeks)
3. MPA/MSP Discovery, Research, and Monitoring (DRuM) Programme – CONT.					
3.18	4th Programme project coordination meeting (2018)	Mandated (DRuM) Programme Oversight team	1/11/2018	30/11/2018	4
3.19	2018 ERM Programme Annual Report	Mandated (DRuM) Programme Oversight team	1/3/2019	30/3/2019	4
3.20	Final Delivery - Representative MPA Plan	Mandated (DRuM) Programme Oversight team	1/9/2018	30/12/2018	17
3.21	Develop plan	Mandated (DRuM) Programme Oversight team	1/9/2018	30/12/2018	17
3.22	Distribute for comment	Mandated (DRuM) Programme Oversight team	1/9/2018	30/12/2018	17
3.23	Finalisation of MPA plan	Mandated (DRuM) Programme Oversight team	1/9/2018	30/12/2018	17
4. MPA/MSP Scoping Exercise 2018-2030					
4.1	Undertake scoping study	Mandated MPA/MSP scoping team	1/1/2016	30/7/2016	30
4.2	Syndication with lead Ministries including Treasury	Mandated MPA/MSP scoping team	1/4/2016	1/9/2016	22
4.3	Circulation for comment	Mandated MPA/MSP scoping team	1/9/2016	30/9/2016	4
4.4	Finalise	Mandated MPA/MSP scoping team	1/10/2016	30/11/2016	9

Initiative 9 – MPA/MSP Discovery, Research and Monitoring Programme (5/5)

#	Detailed activity	Responsible	Planned start date (dd.mm.yyy y)	Planned end date (dd.mm.yyy y)	Length (weeks)
5. Capacity-building and Transformation Programme					
5.1	Initiate Phuhlisa 2 - ACEP Transformation Plan	Garth van Heerden (ACEP Phuhlisa team) - Lead	1-Mar-15	1/4/2015	4
5.2	Undertake annual Phuhlisa activities 2015	Garth van Heerden (ACEP Phuhlisa team) - Lead	1/4/2015	30/12/2015	39
5.3	Undertake annual Phuhlisa activities 2016	Garth van Heerden (ACEP Phuhlisa team) - Lead	1/1/2016	30/12/2016	51
5.4	Integrate MPA research programme students with Phuhlisa Programme	Garth van Heerden (ACEP Phuhlisa team) - Lead; MPA Programme team	1/1/2016	30/12/2016	51
5.5	Undertake Annual Phuhlisa and MPA activities 2017	Garth van Heerden (ACEP Phuhlisa team) - Lead; MPA Programme team	1-Jan-17	30-Dec-17	51
5.6	Undertake Annual Phuhlisa and MPA activities 2018	Garth van Heerden (ACEP Phuhlisa team) - Lead; MPA Programme team	1-Jan-18	30-Dec-18	51
5.7	Undertake Annual Phuhlisa and MPA activities 2019	Garth van Heerden (ACEP Phuhlisa team) - Lead; MPA Programme team	1-Jan-19	30-Dec-19	51

Initiative 10 – MSP process (1/8)

#	Detailed activity	Responsible	Planned start date (dd.mm.yyy y)	Planned start date (dd.mm.yyy y)	Length (weeks)
1. Appointment of the Oceans Secretariat					
1.1	As per the Governance Group process	DG: DEA/ DG: DPME	1-Sep-14	30-Nov-14	12
2. Interim Research, database management and planning tools Working Group established					
2.1	Interim research, database management and planning tools Implementation Leader appointed	DDG: Oceans and Coasts	1-Sep-14	15-Sep-14	2
2.1.1	Compile draft ToR for the interim research, database management and planning tools WG	Interim Implementation Leader	16-Sep-14	30-Sep-14	2
2.1.2	Identify appropriate members to serve in the interim research, database management and planning tools WG	Interim Implementation Leader	16-Sep-14	30-Sep-14	2
2.1.3	Send out letters of invitation and supporting documents	Interim Implementation Leader	1-Oct-14	15-Oct-14	2
2.1.4	Send out reminders	Interim Implementation Leader	16-Oct-14	30-Oct-14	2
2.1.5	Convene first research, database management and planning tools WG meeting and endorse the interim members	Interim Implementation Leader	1-Nov-14	15-Nov-14	2
	- Detail guidance on the purpose/ functions of the interim research, database management and planning tools WG	Interim Implementation Leader			
	- Refine draft ToR for the formal National research, database management and planning tools WG	Interim Implementation Leader			
2.1.6	Convene second research, database management and planning tools WG meeting for progress and updates	Interim Implementation Leader	15-Jan-15	30-Jan-15	2
2.1.7	Prepare a hand-over report of all the work covered before the appointment of the permanent research, database management and planning tools WG	Interim Implementation Leader	1-Feb-15	31-Mar-15	8
3. National research, database management and planning tools WG established					
3.1	National research, database management and planning tools Implementation Leader appointed and the WG established	DG: DEA	1-Apr-15	30-Jun-15	12
3.1.1	Appointment of the Implementation Leader for the research, database management and planning tools	DG: DEA	1-Apr-15	30-Apr-15	4

Initiative 10 – MSP process (2/8)

#	Detailed activity	Responsible	Planned start date (dd.mm.yyyy)	Planned start date (dd.mm.yyyy)	Length (weeks)
3. National Research, database management and planning tools Working Group established					
3.1.2	Update ToR for the research, database management and planning tools WG	Implementation Leader	1-May-15	31-May-15	4
3.1.3	Identify appropriate members (taking into account the membership of the research, database management and planning tools)	Implementation Leader	1-May-15	31-May-15	4
3.1.4	Send out letters of invitation and supporting documents	Implementation Leader	1-May-15	31-May-15	4
3.1.5	Send out reminders	Implementation Leader	1-May-15	31-May-15	4
3.1.6	Convene the first formal meeting	Implementation Leader	1-May-15	30-Jun-15	8
3.1.7	Quarterly meetings	Implementation Leader	1-Jul-15	1-Jul-15	Ongoing – 4 mtgs/FY
4. Training and capacity-building workshops for the development of National MSP Framework					
4.1	Capacity building workshop facilitated by international MSP expert	Interim Implementation Leader	1-Oct-14	30-Jun-15	36
4.1.1	Draft ToR for international expert(s) to conduct 2-3 day MSP Training Workshop	Interim Implementation Leader	1-Oct-14	30-Oct-14	4
4.1.2	ToR to be approved ¹	Interim Implementation Leader	1-Nov-14	30-Nov-14	4
4.1.3	Advertise for Expressions of Interest (EOI)/bids	Interim Implementation Leader	1-Dec-15	15-Jan-15	4
4.1.4	Acknowledge EOIs/bids received	Interim Implementation Leader	15-Jan-15	30-Jan-15	4
4.1.5	Collate EOIs/bids and prepare for evaluation	Interim Implementation Leader	1-Feb-15	28-Feb-15	4
4.1.6	Convene panel to review EOIs	Interim Implementation Leader	1-Feb-15	28-Feb-15	4
4.1.7	Recommend preferred service provider to Secretariat	Interim Implementation Leader	1-Feb-15	28-Feb-15	4
4.1.8	Appoint service provider	Interim Implementation Leader	1-Mar-15	30-Mar-15	4
4.1.9	Service provider to produce draft training course outline	Service Provider	1-Apr-15	30-Apr-15	4
4.1.10	Research, database management and planning tools Implementation Leader to approve training course outline	Implementation Leader	1-Apr-15	30-Apr-15	4
4.1.11	Make necessary logistical arrangements	Implementation Leader	1-Mar-15	30-Apr-15	8

¹ If ToR must be approved by DEA BID Committee, add 4-6 months to the process

Initiative 10 – MSP process (3/8)

#	Detailed activity	Responsible	Planned start date (dd.mm.yyyy)	Planned start date (dd.mm.yyyy)	Length (weeks)
4. Training and capacity-building workshops for the development of National MSP Framework					
4.1.12	Conduct MSP training workshop	Service Provider	1-May-15	30-May-15	4
4.1.13	Produce training workshop report	Service Provider	1-Jun-15	30-Jun-15	4
4.2	Develop a workshop schedule and identify relevant national and international MSP expert workshops	Implementation Leader	1-Jul-14	30-Aug-14	8
4.2.1	Develop a schedule plan of National and International workshops on MSP discussions	Implementation Leader	1-Jul-15	30-Jul-14	4
4.2.2	Approval of the workshop schedule plan	Secretariat	1-Aug-14	30-Aug-14	4
5. Agree on the best model/process for developing National MSP Management Framework					
5.1	Agreement reached on best process to follow	Research, database management and planning tools WG	1-May-15	30-Jun-15	12
5.1.1	Present international examples and best practice for developing MSP Framework looking at the South African context (during training workshop)	Service Provider	1-May-15	30-May-15	4
5.1.2	Provide recommendations on the best possible approach for the South African context	Service Provider	1-Jun-15	30-Jun-15	4
5.1.3	Preferred process agreed to, process summarised and recorded	Research, database management and planning tools WG	1-Jul-15	30-Jun-15	4
5.1.4	Adoption of preferred process	Implementation Leader / Secretariat	1-Jul-15	31-Jul-15	4
6. Existing information and knowledge products identified, collated and gaps defined					
6.1	Undertake inventory of existing knowledge products / data and spatial layers	DEA: Oceans and Coasts Branch	1-Oct-14	31-Jan-15	16
6.1.1	Appoint service provider to undertake audit and produce inventory report	DEA: Oceans and Coasts Branch	1-Sep-14	30-Nov-14	12
6.1.2	Obtain 10-30 year future use projections from key stakeholders (industry, conservation bodies etc..)	DEA: Oceans and Coasts Branch	1-Dec-14	30-Dec-14	4
6.1.3	Produce draft inventory report, database of existing spatial data layers and knowledge products	DEA: Oceans and Coasts Branch	1-Jan-15	31-Jan-15	4

Initiative 10 – MSP process (4/8)

#	Detailed activity	Responsible	Planned start date (dd.mm.yyyy)	Planned start date (dd.mm.yyyy)	Length (weeks)
6. Existing information and knowledge products identified, collated and gaps defined					
6.1.4	Identify gaps and make recommendations for filling these gaps in the inventory report	DEA: Oceans and Coasts Branch	1-Jan-15	31-Jan-15	4
6.2	Present inventory report to interim Research, database management and planning tools WG for consideration	DEA: Oceans and Coasts Branch	1-Feb-15	30-Mar-15	8
6.2.1	Review draft inventory report	DEA: Oceans and Coasts Branch	1-Feb-15	28-Feb-15	4
6.2.2	Update draft inventory report	DEA: Oceans and Coasts Branch	1-Mar-15	31-Mar-15	4
6.2.3	Submit the draft inventory report to research, database management and planning tools WG	DEA/Secretariat	1-Mar-15	30-Mar-15	4
7. National MSP Framework developed (principles, goals, objectives and strategies)					
7.1	Develop the National MSP Framework	Service provider	1-Dec-15	31-Dec-15	56
7.1.1	Draft ToR for the development of the National MSP Framework looking at national and international principles, goals and objectives applied to MSP	Interim Implementation Leader	1-Dec-14	31-Dec-14	4
7.1.2	ToR to be approved	Head of the Secretariat	1-Jan-15	28-Jan-15	4
7.1.3	Advertise for Expressions of Interest (EOI)/bids	Head of the Secretariat	1-Feb-15	28-Feb-15	4
7.1.4	Acknowledge EOIs/bids received	Head of the Secretariat	1-Feb-15	28-Feb-15	4
7.1.5	Collate EOIs/bids and prepare for evaluation	Head of the Secretariat	1-Feb-15	28-Feb-15	4
7.1.6	Convene panel to review EOIs	Head of the Secretariat	1-Feb-15	28-Feb-15	4
7.1.7	Recommend preferred service provider to Secretariat	Panel	1-Feb-15	28-Feb-15	4
7.1.8	Appoint service provider	Head of the Secretariat	1-Apr-15	30-Apr-15	4
7.1.9	Produce draft National MSP Framework (inclusive of recommendations from the MSP capacity training/workshop)	Service provider	1-Apr-15	30-Jul-15	16

Initiative 10 – MSP process (5/8)

#	Detailed activity	Responsible	Planned start date (dd.mm.yyyy)	Planned start date (dd.mm.yyyy)	Length (weeks)
7. National MSP Framework developed (principles, goals, objectives and strategies)					
7.1.10	Present draft National MSP Framework and facilitate discussion at research, database management and planning tools WG	Service provider	1-Jul-15	30-Jul-15	4
7.1.11	Review the draft National MSP framework	Research, database management and planning tools WG	1-Aug-15	30-Aug-15	4
7.1.12	Produce final draft National MSP Framework	Service provider	1-Sep-15	30-Sep-15	4
7.1.13	Submit the final draft National MSP Framework to the Secretariat	Implementation Leader	1-Sep-15	30-Sep-15	8
7.1.14	Submit the Final draft National MSP Framework to FOSAD Sub-committee	FOSAD Sub-committee on Oceans	1-Oct-15	30-Oct-15	4
	Endorse the Final draft National MSP Framework with recommendations from Oceans Inter-Ministerial Committee	Oceans Inter-ministerial Committee	1-Nov-15	30-Dec-15	8
7.1.15	Submit the final draft National MSP Framework to Cabinet for approval and implementation	Cabinet to approve	1-Nov-15	30-Dec-15	8
8. Regional MSP Frameworks developed					
8.1	Develop the Regional MSP Framework	Service provider	1-Jan-16	30-Dec-16	52
8.1.1	Draft ToR for the development of the Regional MSP Framework looking at a region-specific principles, goals and objectives applicable	Implementation Leader	1-Jan-16	28-Feb-16	8
8.1.2	ToR to be approved	Head of the Secretariat	1-Mar-16	30-Mar-16	4
8.1.3	Produce draft REGIONAL MSP Framework (taking into account National MSP Framework principles, goals, strategies and objectives)	Service provider	1-Apr-16	30-Jul-16	16
8.1.4	Present draft Regional MSP Framework and facilitate discussion at research, database management and planning tools WG	Service provider	1-Jun-16	30-Jul-16	8
8.1.5	Review the draft Regional MSP Framework	Research, database management and planning tools WG	1-Aug-16	30-Aug-16	4
8.1.6	Produce the final draft Regional MSP Framework	Service provider	1-Sep-16	30-Sep-16	4

Initiative 10 – MSP process (6/8)

#	Detailed activity	Responsible	Planned start date (dd.mm.yyyy)	Planned start date (dd.mm.yyyy)	Length (weeks)
8. Regional MSP Frameworks developed					
8.1.8	Endorse the final draft of Regional MSP Framework to FOSAD Sub-committee on Oceans	Head of the Secretariat	1-Oct-16	30-Oct-16	4
8.1.9	Submit for approval the Final Regional MSP Framework with recommendations from FOSAD Sub-committee on Oceans	FOSAD Sub-committee on Oceans	1-Nov-16	30-Dec-16	8
8.1.10	Approval of the Final Draft of the Regional MSP Framework to Oceans Inter-ministerial Committees	Inter-Ministerial	1-Nov-16	30-Dec-16	8
9. Sub -regional MS Plans developed					
9.1	Developing the Sub -regional MS Plan	Service Provider	1-Jan-17	30-Mar-18	64
9.1.1	Draft ToR for the development of the Sub -regional MS Plan looking at a sub-region-specific principles, goals and objectives applicable	Implementation Leader	1-Jan-17	28-Feb-17	8
9.1.2	ToR to be approved	Head of the Secretariat	1-Mar-17	30-Mar-17	4
9.1.3	Produce draft Sub-regional MS Plan (taking into account Regional MSP Framework principles, goals, strategies and objectives)	Service Provider	1-Apr-17	30-Sep-17	25
9.1.4	Present draft Sub -regional MS Plan and facilitate discussion at research, database management and planning tools WG	Service Provider	1-Oct-17	30-Oct-17	4
9.1.5	Review the draft Sub -regional MS Plan	Research, database management and planning tools WG	1-Oct-17	30-Nov-15	8
9.1.6	Produce the final draft Sub -regional MS Plan	Service Provider	1-Dec-17	30-Dec-17	4
9.1.7	Submit the final draft Sub -regional MS Plan to the Secretariat for endorsement and approval	Implementation Leader	15-Jan-18	28-Feb-18	6
9.1.8	Submit the Sub-regional MS Plan for approval to FOSAD Sub-committee on Oceans	Head of the Secretariat	15-Jan-18	28-Feb-18	6
9.1.9	Approval of the Final Draft Sub -regional MS Plan to FOSAD Sub-committee on Oceans	FOSAD sub committee on Oceans	1-Mar-18	30-Mar-18	4

Initiative 10 – MSP process (7/8)

#	Detailed activity	Responsible	Planned start date (dd.mm.yyyy)	Planned start date (dd.mm.yyyy)	Length (weeks)
10. Implementation Plan for the National and Regional MSP Framework developed and implemented					
10.1	Implementing and enforcing the National MSP Framework	Research, database management and planning tools WG	1-Jan-16	30-Mar-16	12
10.1.1	Departments to develop an implementation plan to enforce measures provided in the National MSP Framework	Research, database management and planning tools WG	1-Jan-16	30-Mar-16	12
10.1.2	Departments to report on measures taken and progress with regards to achievement and challenges in the implementing the National MSP Framework	Research, database management and planning tools WG	1-Apr-16	30-Mar-26	10-year reporting circle
10.2	Implementing and enforcing the Regional MSP Framework	Research, database management and planning tools WG	1-Jan-17	30-Mar-17	12
10.2.1	Departments to develop an implementation plan to enforce measures provided in the Regional MSP Framework	Research, database management and planning tools WG	1-Jan-17	30-Mar-17	12
10.2.2	Departments to report on measures taken and progress with regards to achievement and challenges in the implementing the Regional MSP Framework	Research, database management and planning tools WG	1-Apr-17	30-Mar-22	5 year reporting circle
11. Implementation Plan of the Sub-regional MS Plans developed and implemented					
11.1	Implementing and enforcing the Sub-regional MS Plan	Research, database management and planning tools WG	1-Apr-18	30-Jul-18	12
11.1.1	Departments to develop an implementation plan to enforce measures provided in the Sub-Regional MS Plan	Research, database management and planning tools WG	1-Apr-18	30-Jul-18	16
11.1.2	Departments to report on measures taken and progress with regards to achievement and challenges in implementing the Sub-regional MS Plan	Research, database management and planning tools WG	1-Apr-18	30-Mar-21	3-year reporting circle
12. Monitoring and evaluating performance of National and Regional MSP Frameworks					
12.1	Monitoring and evaluating performance indicators of the National MSP Framework	Head of the Secretariat	1-Jan-16	30-Mar-16	12
12.1.1	Provide a mechanism for reviewing the National MSP Framework over a period of 10 years after a the approval of the plan	Head of the Secretariat	1-Jan-16	30-Mar-16	12

Initiative 10 – MSP process (8/8)

#	Detailed activity	Responsible	Planned start date (dd.mm.yyy y)	Planned start date (dd.mm.yyy y)	Length (weeks)
12. Monitoring and evaluating performance of National and Regional MSP Frameworks					
12.1.2	Produce a report and provide a mechanism for addressing challenges	Head of the Secretariat	1-Apr-16	30-Mar-26	10 year reporting circle
12.2	Monitor and evaluate performance indicators of the Regional MSP Framework	Head of the Secretariat	1-Jan-17	30-Mar-17	12
12.2.1	Provide a mechanism for reviewing the Regional MSP Framework over a period of 5 years after a the approval of the plan	Head of the Secretariat	1-Jan-17	30-Mar-17	12
12.2.2	Produce a report and provide a mechanism for addressing challenges	Head of the Secretariat	1-Apr-17	30-Mar-22	5 year reporting circle
13. Monitoring and evaluating performance of Sub-regional MS Plans					
13.1	Monitoring and evaluating performance indicators of the Sub-regional MS Plan	Head of the Secretariat	1-Apr-18	30-Jul-18	12
13.1.1	Provide a mechanism for reviewing the Sub-regional MS Plan over a period of 3 years after a the approval of the plan	Head of the Secretariat	1-Apr-18	30-Jul-18	16
13.1.2	Produce a report and provide a mechanism for addressing challenges	Head of the Secretariat	1-Apr-18	30-Mar-21	3 year reporting circle
14. Conflict resolution and trade-offs decision body					
14.1	Conflict resolution decision-making body				
14.1.1	Refer to the decision tree developed by Oceans Governance team				
14.2	Trade-off decision-making body				
14.2.1	Refer to the decision tree developed by Oceans Governance team				

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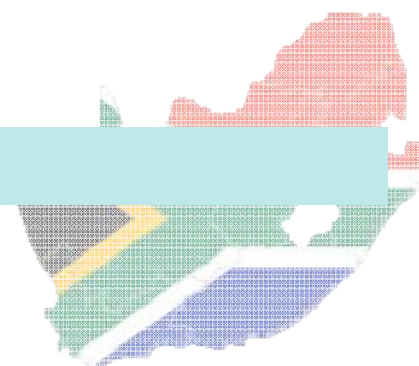
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Appendices



Appendices to the Marine Protection Services and Governance Operation Phakisa report

1. Implementation Protocol Guidelines
2. Report of the legal task team of the Marine Protection Services and Ocean Governance Lab
3. MPSG Legislation Amendment Template
4. List of SA Maritime Legislation
5. Enforcement - Two (2) Terms of Reference
6. Enforcement - Interim Committee
7. Enforcement - Technical Reference Group on Compliance Monitoring and Enforcement
8. Enforcement - Statement of Intent to Collaborate
9. Enforcement - SOP for the Pilot Project – consulted with all key stakeholders
10. Enforcement - Project Brief Template
11. Enforcement - Exit Report Template, including indicators and basic M&E framework
12. Enforcement - Draft MoU
13. Technical Document on proposed MPAs, including latest detailed maps
14. Compilation of stakeholder reports, setting out syndications and other consultation notes
15. MPA Risks and Solutions
16. MPA Research Technical Report

