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INTRODUCTION

The Creation of the Branch

- The Presidential Proclamation (2010) Transferred capture fisheries to DAFF
- Implications
 - DEAT Marine and Coastal Management was divided
 - Fisheries Management moved to DAFF
 - Integrated Coastal Management remained with DEA
 - Research divided with fisheries research to DAFF and environment researchers (ecosystems, species, plankton & ocean physics and chemistry) with DEA
 - All ships (research and patrol except Agulhas) and all compliance officers moved to DAFF; subsequently:
 - · One research ship returned to DEA
 - Chief Directorates Ocean Conservation and Specialist Monitoring created



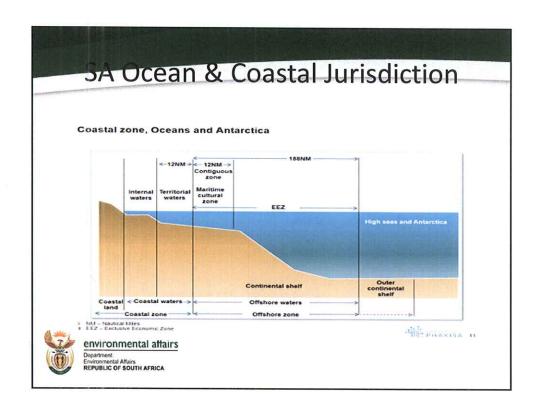
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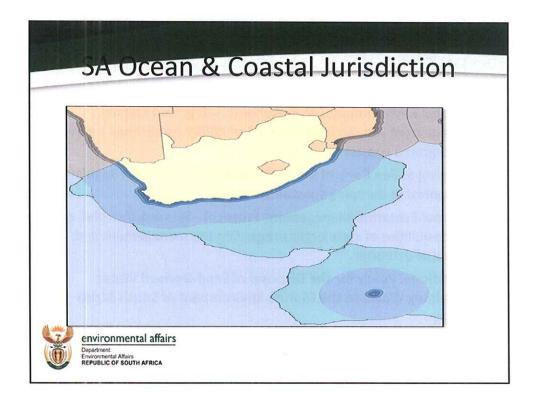
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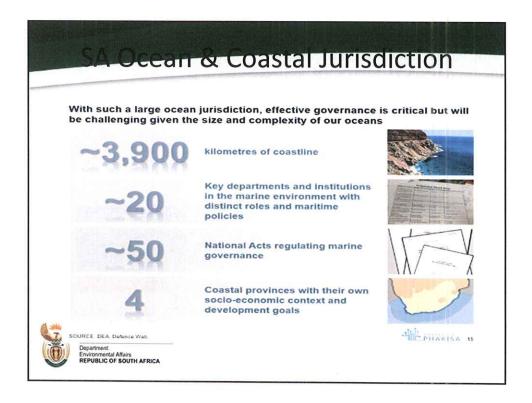
INTRODUCTION

- United Nations Convention on the Law of the Seas (UNCLOS) was concluded in 1982 and entered into
 force in 1994.
- Obligations of coastal states are set against the limitations that are more about jurisdiction of states from
 the baseline (coastline) to the high seas, i.e. the internal waters; territorial; contiguous and the exclusive
 economic zone (EEZ).
- Coastal states can set laws and regulate utilization of marine resources up to 12 nautical miles. For another 12 nautical miles (up to 24) coastal states can only develop and implement laws about customs; taxation; immigration and pollution.
- The 200 nautical mile mark (370 km) marks the EEZ, which does not belong to the coastal state, but
 each state has a right over all marine living resources in these waters for exploitation with an obligation
 to conserve to ensure sustainable utilisation.









KEY LEGISLATIVE & POLICY FRAMEWORKS

- Sea Shore Act, 1935, (Act No. 21 of 1935): Declares the ownership of the sea-shore and the sea.
- National Environmental Management: Integrated Coastal Management Act, 2008 (Act No. 24 of 2008): Establishes a system of integrated coastal management.
- Dumping at Sea Control Act, 1980 (Act No. 73 of 1980: Regulates the control of dumping substances at sea.
- National Estuarine Management Protocol Sets out the roles and responsibilities of state organs regarding the management and control of estuaries.
- Operational Policy for the Disposal of Land-Derived Water Containing Waste to the Marine Environment of South Africa (2004),

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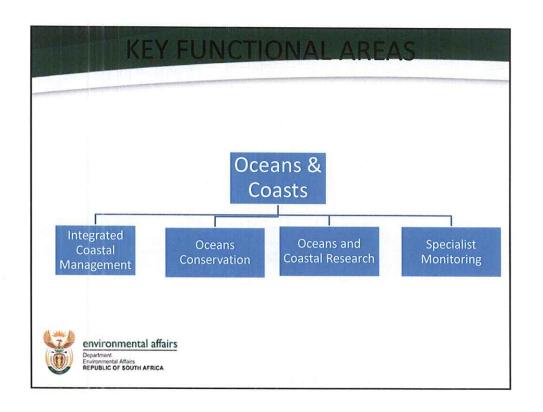
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KEY LEGISLATIVE & POLICY FRAMEWORKS

- Coastal Zone, GNR 497 of 27 June 2014.
- ICM Act Regulation: Control of Use of Vehicles in the Coastal Area
- Sea Birds and Seals Protection Act, 1973 (Act No. 46 of 1973) provides for control over certain islands and rocks for the protection and conservation of seabirds and seals
- Antarctic Treaties Act, 1996 (Act No. 60 of 1996), provides for the implementation of certain treaties relating to Antarctica.
- Various regulations declaring a number of MPAs
- White Paper on the National Environmental Management of the Ocean (NEMO)
- · Oceans Management Bill



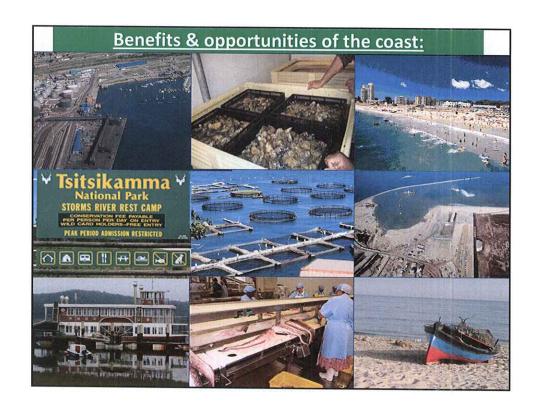


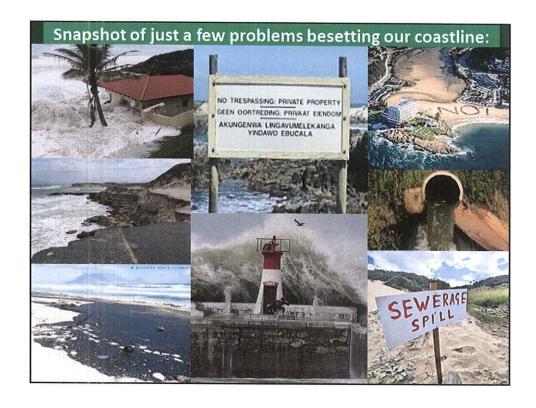
Overview:

- RSA Constitution: coastal areas to be managed concurrently.
- DEA required to cooperate with provinces & local government in managing & protecting the coast.
- A large part of mandate is derived from Integrated Coastal Management Act, 2008.
- Context:
 - More than 30% of South Africans reside along coast.
 - Our coast : an interface between RSA and the world.









Objectives of the CD: ICM

- Ensure that coastal developments are environmentally sustainable and that specific human uses are effectively regulated.
- Ensure that coastal water is not polluted to the extent that people cannot benefit from it.
- Ensure that coastal biodiversity, habitats and ecosystem services are protected through Marine Protected Areas and effective management of estuaries.



The National Coastal Management Programme (NCMP)

- Coastal management programmes required across the 3 Tiers of Government.
- DEA NCMP sets out a vision, objectives & strategies for addressing priority challenges facing the coastline.
- The NCMP:
 - Identifies the pressing environmental pressures.
 - Identifies priorities and actions to inform provincial and local ICM programmes.
- · Launched in March 2015.





Addressing coastal vulnerability: Programme (NCMP) Addressing coastal vulnerability: National Coastal Management Programme (NCMP)

Facilitation of public access to the coast

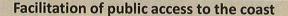
- ICM Act advocates equitable access to the coastline and coastal resources.
- After 20 years of democracy, public access still not a reality everywhere -- private land challenge.

Priority areas for coastal access land identified in the coastal provinces.

 One site to be designated for public access in 2015-2016 (Eerste Rivier, Eastern Cape).





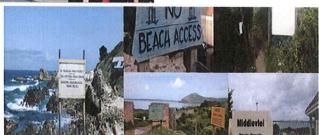




Pre-Democratic South Africa: Access denied along racial lines

Post-Democratic South Africa: Access restricted by privately owned properties





Management of sewage disposal into coastal waters

- · Sewage disposal a major threat to coastal water quality.
 - Volume disposed of trippled over past decade.
 - More sewage disposed of into sensitive areas e.g. estuaries.
 - Infrastructure ageing and failing to cope.
 - Recreational beach users at risk to falling ill.
- ICM Act mandates DEA to regulate coastal sewage disposal.
- For coastal water quality to remain fit for use, water quality standards are needed.





Key initiatives:

Management of marine oil spill emergencies

- We are located along a very busy shipping route with harsh ocean conditions.
- Therefore vulnerable to oil spill incidents from ships.
- Can have dramatic & catastrophic socio-environmental consequences.
- DEA mandated to co-ordinate clean-up operations.
- Post 1994 over 20 serious marine pollution incidents.
- Discussions underway to transfer the function to the DOT.





Management of estuaries

- 'Estuaries": where rivers meet the sea; Provides:
 - sheltered environment for coastal species to breed.
 - tourism & public recreational activities.
 - economic activities (boating, port activity etc.).
- ICM Act requires estuaries to be managed in a coordinated manner.

 DEA published an National Estuarine Management Protocol to guide the management of estuaries.

 DEA leading the development of the Integrated Orange River estuary management plan.



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Key initiatives:

Marine Protected Area (MPA) Management

- MPAs established to:
 - conserve RSA's rich marine and coastal biodiversity for benefit of present and future generations.
 - conserve areas where there is a need for regeneration.
- · Can be contentious to manage:
 - balancing conservation efforts with community access.
- DEA engaging stakeholders on a ongoing basis to address issues of access
 - e.g. Dwesa-Cwebe MPA draft regulations for addressing local access published.
 Tsitsikama MPA – negotiations initiated
 & task team formed.



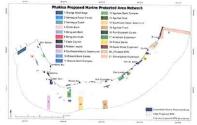


Marine Protected Area (MPA) Expansion

- Expansion of RSA's current MPA network supported under Operation Phakisa Oceans Economy Initiative.
- Aim: to have 5% of SAs EEZ protected.
- Process taken forward by a technical committee lead by DEA-OC.
- Support from DAFF, SANBI, EKZNW and experts invited as and when needed.
- Formal Public Consultation Process is expected to commence in October 2015.







Summary: Integrated Coastal Management

- Since enactment of the ICM Act, strides taken to address key ICM challenges:
 - improved co-ordination across 3 tiers of Government.
 - greater clarity & consensus on key coastal issues to address.
 - greater visibility of ICM within Government.
- Are our management strategies, programmes & interventions succeeding?
 - need for monitoring & scientific research.





Function of the Chief Directorate Ocean Conservation

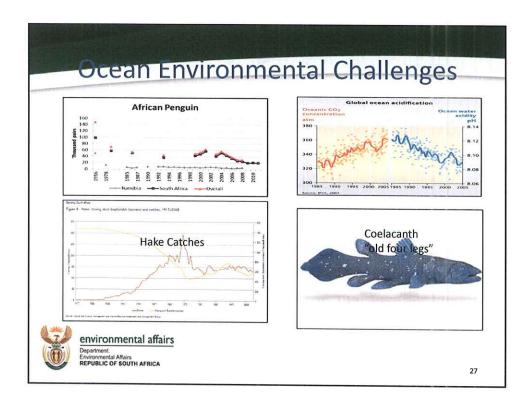
- · Ocean Conservation;
 - Ocean Spatial Planning;
 - Marine Species Management;
- · South African National Antarctic Program;
 - Management of Antarctica
 - Management of Sub-Antarctica.



CONTEXT

- There is a Sectoral Management of the ocean in South Africa:
 - > Regulation of sectors is in isolation;
 - > Sectoral management approach has been proven to be ineffective;
- This represents challenges in conservation and development initiatives;
- There is a need to improve management of the ocean through the coordinated and integrated approach.





Management Response

- White paper on the National Environmental Management of the Ocean (Ocean Policy);
- Ocean Policy sets out a modern integrated approach to ocean environmental management;
- The Ocean Policy was presented to cabinet on the 04 December 2013 for approval and the following was the cabinet decision
 - develop an integrated approach to ocean governance including management plans for ocean areas;
 - The pursuance of Economic Perspective Study of the Ocean;
- White Paper on NEMO was simultaneously approved with the Economic Perspective of the Ocean.



Implementation of Cabinet Decision

Ocean Economy Delivery Laboratories

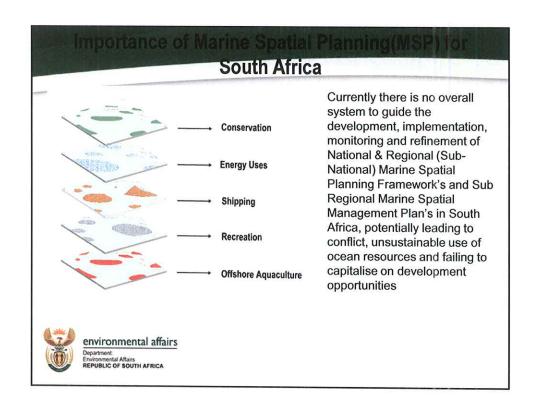
- Marine Transport and Manufacturing;
- Oil and Gas Exploration;
- Aquaculture and;
- Protection Services and Ocean Governance

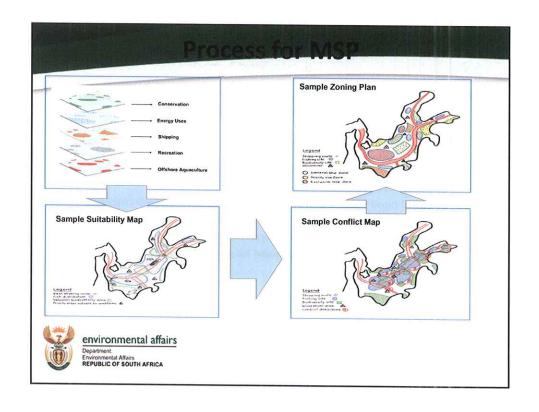


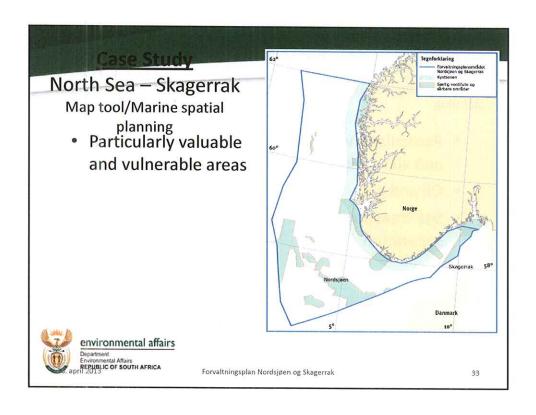
Unlocking Ocean Economy

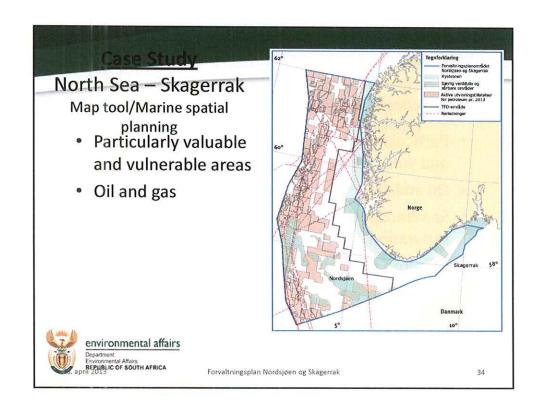
- Department of Environmental Affairs was responsible for Marine Protection Services and Governance;
- · key initiatives agreed upon are:
 - ☐ Enhancement of Legislation into the Oceans Act
 - $\ \square$ Accelerated Capacity Building Intervention in Ocean Governance
 - ☐ Enhanced and Coordinated Enforcement Programme
 - ☐ National Ocean and Coastal Information System and Extending Earth Observation
 - ☐ National Ocean and Coastal Water Quality Monitoring Programme
 - ☐ Creation of a Marine Protected Area Representative Network
 - ☐ Marine Protected Area / Marine Spatial Planning Discovery, Research & Monitoring Programme
 - ☐ Marine Spatial Planning Process

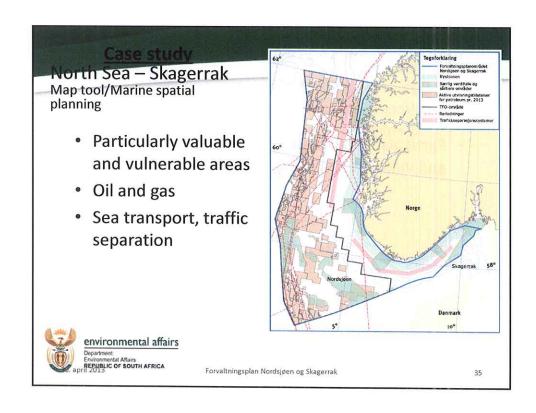


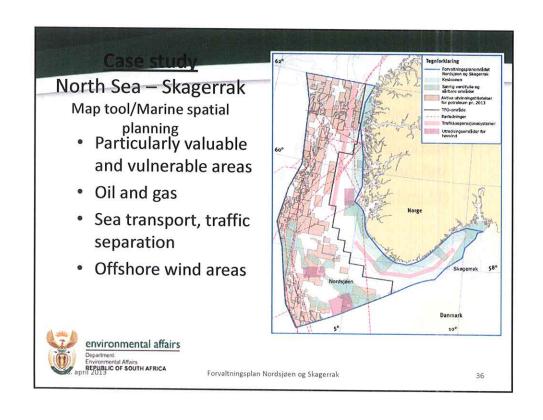


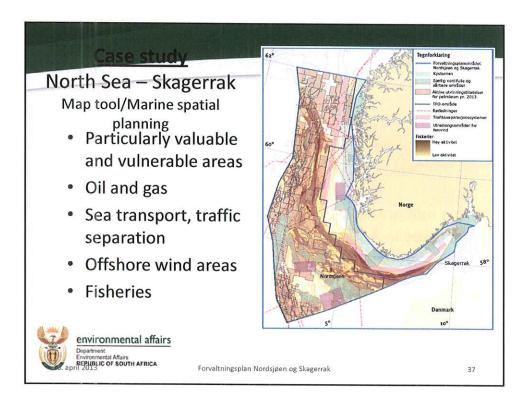


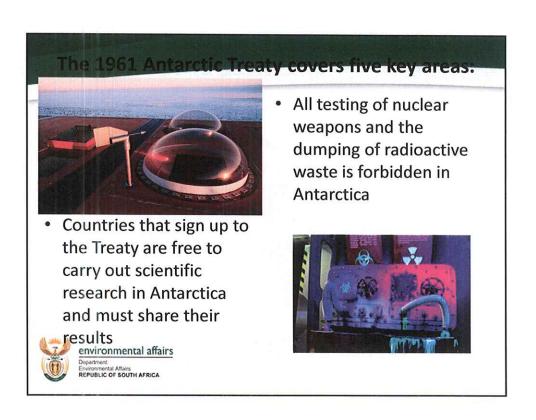


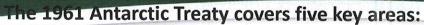










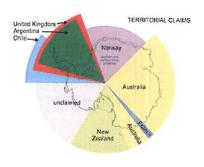




 No military activities are allowed in Antarctica – the continent must be used for peaceful purposes only



 Claims to slices of Antarctica by individual countries are set aside so long as the Treaty exists



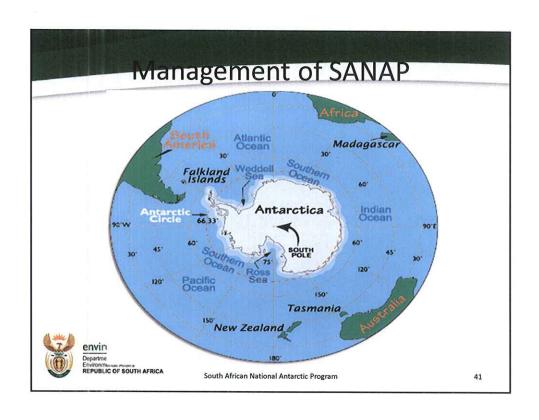
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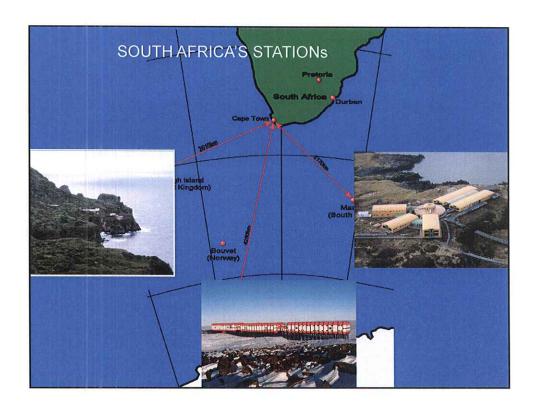
The 1961 Antarctic Treaty covers five key areas:

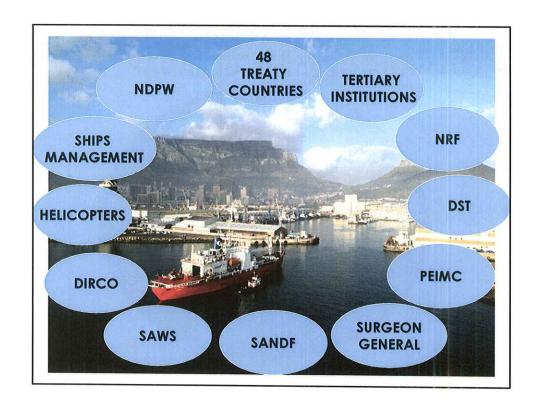
- · And finally:
- The Treaty promotes Antarctica as a place to undertake important scientific research

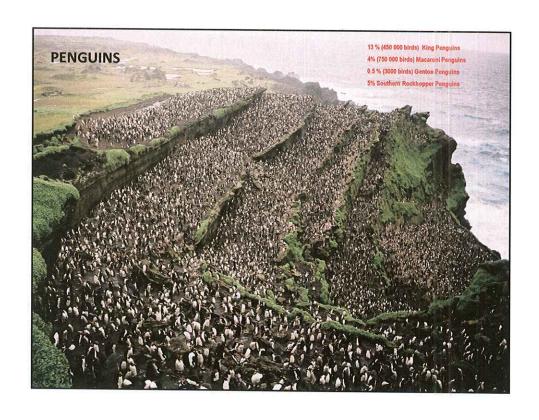


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CURRENT INTERNATIONAL ENVIRONMENT

- The international interest in Antarctica is currently rising (Table on next slide – Snapshot Comparison)
 - Non original Antarctic Treaty countries have increased their bases e.g. China, S. Korea and India;
 - Building of new polar research vessels by countries undergoing austerity measures e.g. UK and Australia;
 - Renewal of Antarctic strategies e.g. Australia, Russia and Norway;
 - Antarctic Treaty Countries were primarily concerned with military security – overlooked resource potential
 - 21st century need for energy security and growing competition for finite resources - Countries looking for other reliable energy resources e.g. competition for sovereignty over the oil rich Arctic continental shelf.



Metrics Used in Comparison	NAME OF COUNTRY OPERATING IN ANTARCTICA						
	UK - BAS	S. Korea - KOPRI	India - NCAOR	USA - NSF	Australia - AAD	China - CAA	S. Africa - SANAP
When did they become freaty Members	1960	1986	1983	1960	1961	1983	1960
No of stations in Antarctics	3	2	2	3	3	3	1
No of people during winter	22	15	25	250	22	14	11
tio of People during summer	130	60	65	980	70	40	80
Resources in Directorate	400	280	100	25	33	230	24
No of Vessels	2	1	0	2	1	1	1
No of helicopters	Charter	Charter	Charter	Charter	Charter	Charter	Charter
No of fixed wing aircraft	2	Charter	Charter	Charter	Charter	Charter	Charter
Tetal Espenditure	USD 75 M	USD 50 M	USD 44.1 M	USD 300 M	USD 82.63 M	USD 32.7 M	USD 15 M

POSSIBLE OPPORTUNITIES

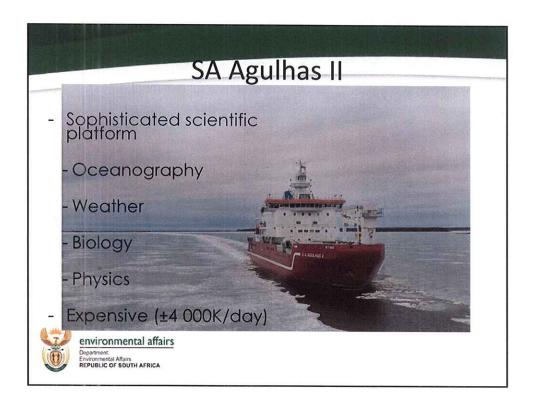
- Greater African representivity and therefore greater influence on Antarctic Treaty System (ATS).
- Gateway status of Cape Town to be enhanced already contributing to economy of the region.
- Not benefitting as much as other gateway cities (particularly from Antarctic Tourism) though.
- Need to understand Antarctica's potential to provide food, economic and energy security influencing a number of Countries to increase their investments in Antarctica – South Africa in close proximity can capitalise on this.
- Antarctica key to the global weather systems, major carbon sink, vast marine resources and great potential for bio-prospecting.

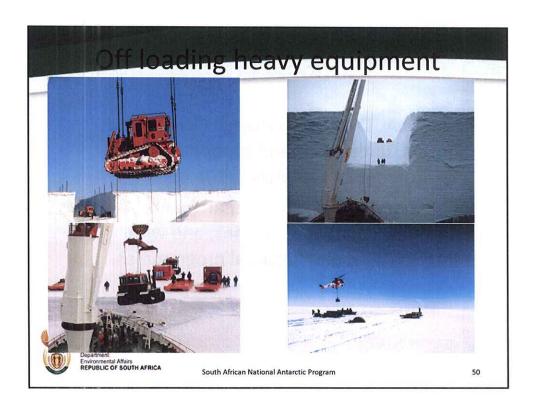


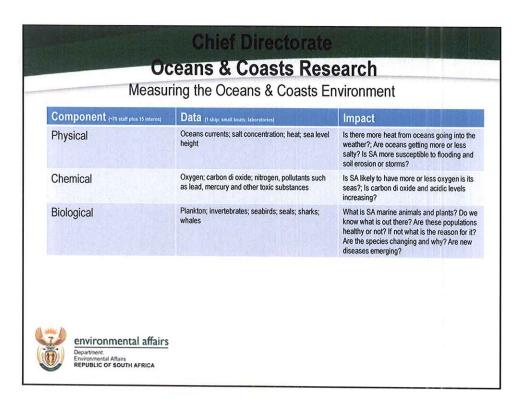
POSSIBLE OPPORTUNITIES

- Antarctica is a "resource rich" continent (motivation for some countries to join Treaty)
- 70% of world's fresh water, mineral rich (all minerals of Southern African region represented there)
- Large number of patents (food and pharmaceutical)
 registered in various countries as a result of Antarctic Research.
- South Africa needs to enhance its presence by attracting other like minded counterparts in Africa.









National Context

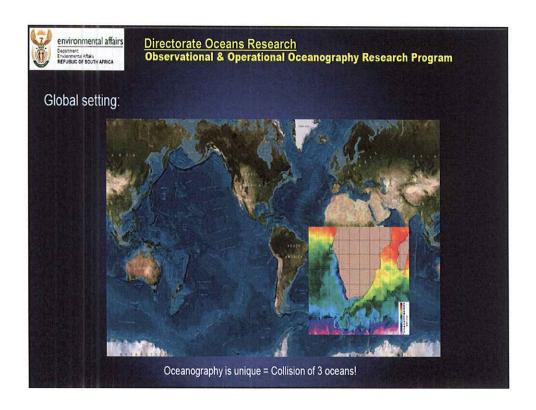
- The DEA, Through its Branch Oceans and Coasts, undertakes and supports applied environmental research.
- Collaborate with other Departments, Agencies and Academic Organisations, and with International and Regional programmes.

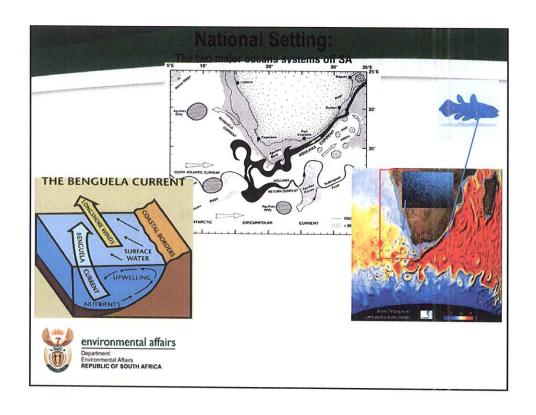


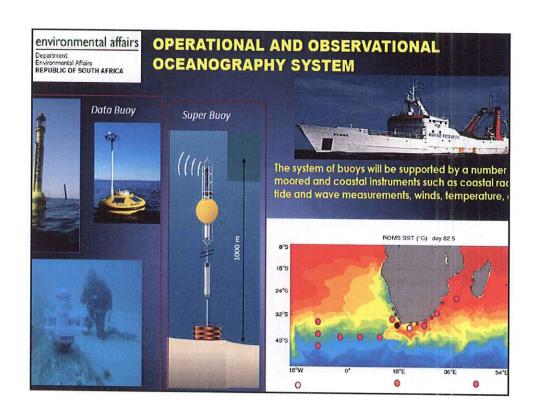
Main Research areas

- Directorate: Oceans Research
 - Operational Oceanography measurements (& models)
 - Ecosystem Functioning including plankton and ocean chemistry
- Directorate: Biodiversity & Coastal Research
 - Marine biodiversity
 - Marine top predators, ecosystem health
- Cross cutting
 - Coastal Research, including water quality, coastal vulnerability assessment



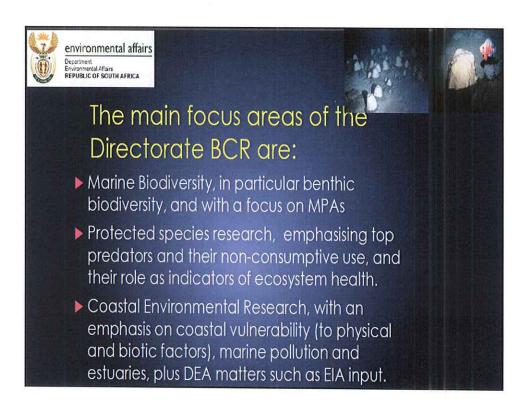


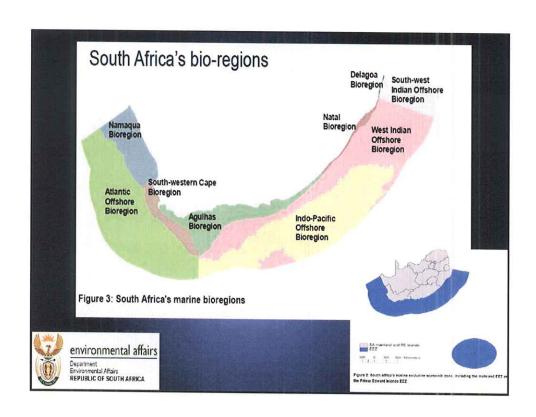














Research on Marine Biodiversity and Marine Protected areas:

- SA has 23 Marine Protected areas, including one in the Southern Ocean, that cover20% of our coast and include most bioregions.
- We need to fully explore and document this biodiversity, and understand better its relation to the physical environment.
- The biodiversity conserved in the MPAs supports sustainable use of resources outside their boundaries (eg Goukamma), conservation of aggregations.
- ▶ Bio-discovery activities are commencing



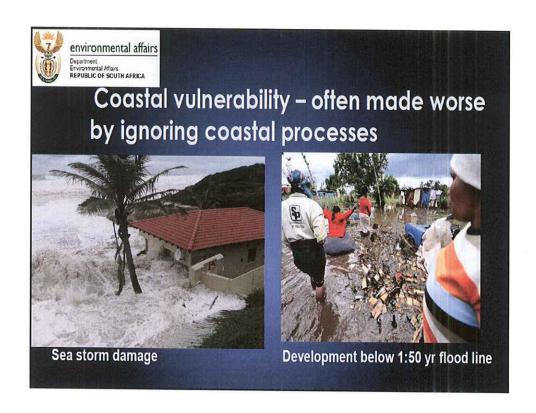


- Protected species include whales, dolphins, seabirds, seals and turtles, as well as some fish species (like the coelacanth).
- ▶ We monitor the populations of these species, as well as using tracking technology to see their migrations and better understand their life histories in relation to the natural environment and man-made pressures, incl Climate Change.
- Most protected species support a rapidly developing ecotourism or non-consumptive use sector

Coastal vulnerability research

- Coast is vulnerable to biotic and abiotic (physical) hazards; large waves; soils erosion
- Biotic vulnerability (for example) is manifest in the increase in the areas affected by harmful algal blooms, and lobster walk-outs, needing co-ordinated planning.
- Physical vulnerability includes storm damage and coastal erosion, and research has provided a new basis for Coastal Setback Lines

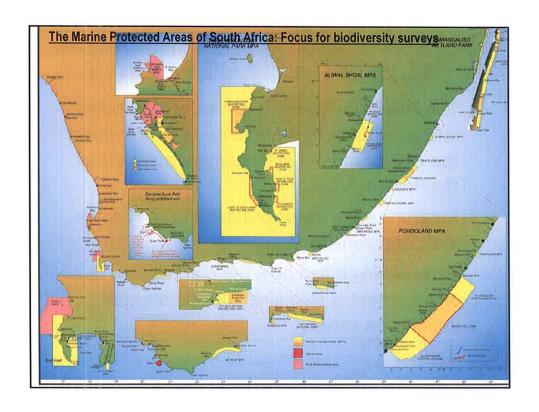




Key areas requiring scientific input

- Research on top predators and Ecologically and Biologically Significant Areas (EBSAs) – (Outcome is that conservation supports sustainable use and future options, including biotechnology)
- Coastal Vulnerability Assessment and study and monitoring of hazards in the context of Climate Change (provides for safer coastal communities)
- Environmental information for standards for offshore prospecting and mining – (Outcome is to maintain environmental integrity together with development)
- Information for Marine Spatial Planning (multiple beneficial uses can be supported, for example conservation and ecotourism)
- Reporting and Assessment (information based decisions)



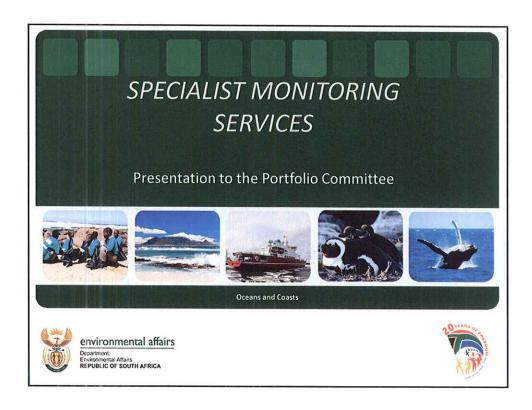




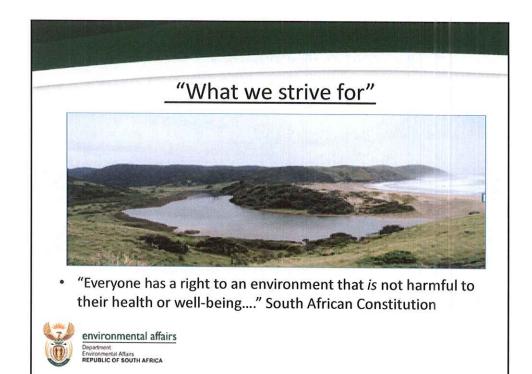
Status of the CD: OC Research

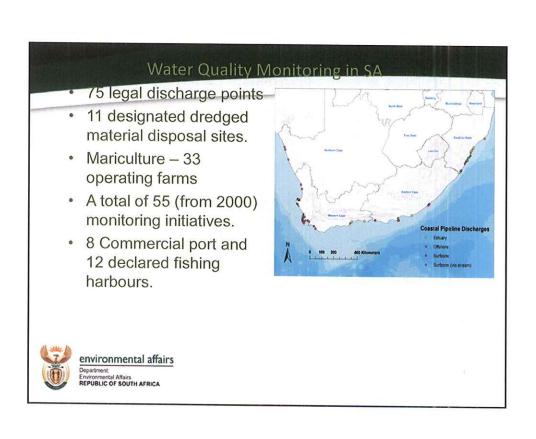
- The Chief Directorate is currently developing and prioritizing its work to more fully support the environmental management mandate of the Branch
- Measuring the status or health of the oceans and coasts environment
- Determining if and how the marine environment is changing and its potential impacts on society environmental affairs











PRIORITIES

- Oceans and Coasts
 Monitoring Programme
 (Water Quality; Biodiversity and Physical Processes)
- Report on the status/condition of the Oceans and Coasts Environment every 5 years (State, Pressures and Management Responses)





CHALLENGES

- There is fragmented, uncoordinated and non-uniform monitoring of marine and coastal waters in South Africa.
- Cumulative or aggregated impacts unknown due to sectorial approach
- Thus impossible to get a clear picture of the water quality status of South Africa's marine and coastal environment at any given time, or discern any possible trends
- Possible negative impacts on recreation, tourism and commercial enterprises (such as the export of aquaculture products).



KEY DELIVERABLES

- Our existence is relatively recent and of the three aspects of monitoring we are currently focusing on the chemical aspect of water quality.
- National water quality monitoring programme – linked to Phakisa deliverables
- Establishing a credited National Pollution Reference Laboratory –which model will benefit South Africa most.
- Oceans and Coasts Information System – A national system to collate and interpret different relevant data sets.





TERNATIONAL AND REGIONAL COOPERATION

KEY STRATEGIC OBJECTIVE

Enhanced **international & regional cooperation** to support **SA priorities** relevant to Oceans & Coasts AND implementation of **integrated projects**

FUNCTIONS

- 1. Facilitate Branch commitments to regional and international programmes of work .
- 2. Facilitate regional and international representation.
- 3. Facilitate and track progress on the creation and achievement of international mandates
- Implementation of large integrated projects across the Branch through coordination of teams / finances within the Branch and outside the Branch and the Department.



KEY STRATEGIC OBJECTIVE

Overarching Strategic International Engagement Priorities include:

- Utilize the international environmental arena to mobilize financial and technical resources for implementation of national and regional programmes and strengthening of institutions and support the implementation of environment strategy priorities.
- International engagement to pursue our own interests that have a bearing in understanding current global environmental matters, skills development, economic and investment opportunities, promoting development and eradicating poverty.



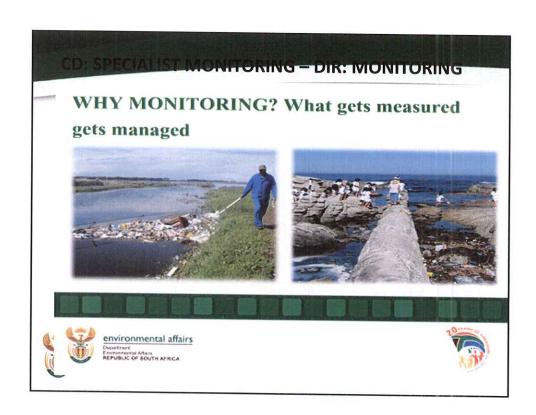
Agreement	Responsible official			
1. Benguela Current Commission	Lisolomzi Fikizolo			
2. London Convention	Lisolomzi Fikizolo			
3. Intergovernmental Oceanographic Commission (IOC): IIOE2 & IORA	Lisolomzi Fikizolo			
4. Antarctica Marine Living Resources (CCAMLR)	Lisolomzi Fikizolo			
5. Nairobi Convention	Lisolomzi Fikizolo			
6. Abidjan	Lisolomzi Fikizolo			
7. Antarctica Treaty (ATCM)	Lisolomzi Fikizolo			

CURRENT POSITIONS OF INFLUENCE IN

ERNATIONAL BODIES RELEVANT TO DEA

- The Minister of Environmental Affairs in the current Chairperson of the Abidjan Convention as well as the Vice-Chairperson of the Nairobi Convention
- Dr Monde Mayekiso has been recently re-elected for another two years as the Chairperson of the Intergovernmental Oceanographic Commission (IOC) Africa Group.
- South Africa will be assuming the Chairmanship of the Commission for the Conservation of Antarctica Marine Living Resources (CCAMLR) for two year with effect from 2016





voater Quality Monitoring in SA 75 legal discharge points 11 designated dredged material disposal sites. Mariculture – 33 operating farms A total of 55 (from 2000) monitoring initiatives. Costal Pipeline Discharges Environmental affairs Dapartment Environmental Affairs REPUBLIC OF SOUTH AFRICA

