



**planning, monitoring  
& evaluation**

Department:  
Planning, Monitoring and Evaluation  
REPUBLIC OF SOUTH AFRICA



**environmental affairs**

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Environmental Affairs  
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**SOCIO-ECONOMIC IMPACT ASSESSMENT SYSTEM (SEIAS)**

**REVISED (2019): FINAL IMPACT ASSESSMENT TEMPLATE–PHASE 2**

**NAME OF THE PROPOSAL: DECLARATION OF A MARINE PROTECTED AREA (MPA)  
REPRESENTATIVE NETWORK COMPRISING 20 MPAs AS PART OF OPERATION PHAKISA**

1. Please DO NOT ALTER the template and questionnaire
2. Date must be clearly indicated
3. Draft SEIAS report should have a watermark word DRAFT indicating the version and should be accompanied by the supporting documents (draft proposal, M&E plan and pieces of research work)
4. FINAL report will be in PDF format and will be inclusive of the sign-off
5. FINAL report will have the approval stamp of the DMPE on the front cover and will include the signoff
6. Sign off forms are only valid for a period of six months.

## PART ONE: ANALYSIS FOR FINAL SEIAS REPORT

*Please keep your answers as short as possible. Do not copy directly from any other document.*

### 1. Conceptual Framework, Problem Statement, Aims and Theory of Change

#### 1.1. What socio-economic problem does the proposal aim to resolve?

In 2014, the Minister of Environmental Affairs, together with 16 other Cabinet colleagues, endorsed the plan to achieve, as part of Operation Phakisa: Ocean Economy, a viable Marine Protected Area (MPA) Representative Network. The purpose of the network would be to protect the marine biodiversity of South Africa's oceans, including ecosystems that currently receive no protection. It would also facilitate the sustainable use of the ocean by fisheries and other sectors.

The development of the Oceans Economy through Operation Phakisa is recognised widely as a bold, positive and proven way to proceed by pursuing economic development and governance objectives at the same time. With the intensification of South Africa's ocean economy, there is increasing urgency to provide the necessary protection to a representative sample of marine ecosystems.

The proposal aims to increase marine ecosystem protection for the benefit of fisheries and marine ecosystem services. According to the scientific research reports, fisheries stock is decreasing and that requires the government to decrease the Total Allowable Catch (TAC) and Total Allowable Effort (TAE). The decrease in total allowable catch affects jobs opportunities and as a result, decrease in total allowable catch triggers fisheries industry to lay off of the employees. Kerwath (*et al.* 2013) published an article setting out the benefits of a South African MPA in the prestigious journal, *Nature*. The paper indicates that MPAs provide increased catches outside their boundaries thereby supporting increasing socio-economic benefits. The importance of protected areas is also acknowledged by eco-certification of fisheries such as South Africa's main fishery which is deep-sea trawling.

#### 1.2. What are the main root causes of the problem identified above?

The exploitation of marine ecosystem affects marine habitat and fisheries stock recovery growth. Private sector and government need to work together for the protection of the marine ecology. The decrease in fisheries stock is the fundamental socio-economic problem that needs the public and private sector to work together to rescue the problem. The government needs to protect the marine ecosystem for the benefit of habitat protection that increases marine ecosystem services.

What socio-economic problem does the proposal aim to resolve	What are the main roots or causes of the problem
There is only 0.4 % protection in the South African ocean space which is relatively a small % compared to the land territory which is around 8%. There is a high number of unprotected species and habitats thus MPAs are seeking to increase protection to 5%.	There are unprotected species and habitats in the marine environment.
Decrease in fisheries stocks	Fish resource exploitation due to illegal unreported and unregulated fisheries and in some instances unsustainable practises. While South African fisheries are well and actively managed, including by quotas and catch and effort limits, MPAs are needed for species that are under overall pressure and also for maintaining other components of the ecosystem.

1.3. Summarise the aims of the proposal and how it will address the problem in no more than five sentences.

The 20 network of Operation Phakisa MPAs will increase marine protection in South Africa Exclusive Economic Zone (EEZ). The increase of protection in marine protected areas will increase fisheries stock, eco-tourism, medicinal resources and economic development through an increase in job opportunities and fisheries transformation. The proposal of 20 network of Operation Phakisa MPAs aims to protect areas representative of all ecosystems, habitats and species naturally occurring in South Africa. Operation Phakisa MPAs will restore the already degraded marine environment and restore the replenished endangered marine species vulnerable to poaching.

1.4. Please describe how the problem identified could be addressed if this proposal is not adopted. At least one of the options should involve no legal or policy changes, but rather rely on changes in existing programmes or resource allocation.

It will promote principles of cooperative governance promoted in Chapter 3 of the Constitution. Government, communities and the private sector need to work together to promote sustainable development. Public and private sector partnerships need to be promoted for the protection of the marine environment. We need to use the indigenous knowledge of communities adjacent to MPAs. The importance of the marine environment needs to be articulated by everyone referring to the prevailing circumstances in our environment from climate change impacts, abnormal storms surges and sea level rise. The impacts occurring need cooperation between government and the private sector.

<b>Option 1.</b>	Other scientific initiatives such as EBSAs provide an indication of vulnerable habitats and species but do not themselves offer protection.
<b>Option 2.</b>	Indigenous knowledge has been used in areas where traditional use is still allowed despite areas being protected against outside exploitation. However, the current network has a strong focus on offshore protection.
<b>Option 3.</b>	Fisheries management tools such as total allowable catch (TAC), size limits, bag limits etc. but these generally take a single species approach to protection. In contrast, MPAs offer protection to ecosystems, and therefore many more species, as well as the target species, benefit in ways such as improved breeding and recruitment.

	The importance of fisheries management is recognised by eco-certification agencies such as the Marine Stewardship Council which takes a science-based approach to sustainable fisheries and economic benefits.
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## PART TWO: IMPACT ASSESSMENT

### 2. Policy/Legislative alignment with other departments, behaviours, consultations with stakeholders, social/economic groups affected, assessment of costs and benefits and monitoring and evaluation.

2.1. Are other government laws or regulations linked to this proposal? If so, who are the custodian departments? Add more rows if required.

Government legislative prescripts	Custodian Department	Areas of Linkages	Areas of conflict
Mineral Petroleum Resources Development Act (Act No. 28 of 2002)	Department of Mineral Resources (DMR)	Protection of Natural Resources	Mining in protected areas
Mining and Biodiversity Guidelines (2013)	Department of Environmental Affairs (DEA) and DMR	Conservation in mining	Extractive industries such as mining and fishing in conservation areas.
Marine Living Resources Act (Act No. 18 of 1998)	Department of Agriculture Forest and Fisheries (DAFF)	Fisheries Resources Management	Fish farming in MPAs including discharges from land-based farms
National Environmental Management Act (Act No. 107 of 1998)	DEA	An integrated approach to the management of natural resources	Some economic departments have different mandates on sustainable development approaches
National Environmental Management: Protected Areas Act (Act No. 57 of 2003)	DEA	Conservation and protection of Natural Resources	No conflict as this legislation enables us to declare MPAs
National Environmental Management: Biodiversity Act (Act No. 10 of 2004)	DEA	Management of Ecosystems Services	Marine Biodiversity and Terrestrial Biodiversity approach  IUCN listing of threatened, endangered and vulnerable species.

2.2. Proposals inevitably seek to change behaviour in order to achieve a desired outcome. Describe (a) the behaviour that must be changed, and (b) the main mechanisms to bring about those changes. These mechanisms may include modifications in decision-making systems; changes in procedures; educational work; sanctions; and/or incentives.

a) What and whose behaviour does the proposal seek to change?

The proposal seeks to involve offshore industries, in particular, in contributing to the protection of species, which will be to their long-term benefit as well as those of coastal communities. Regarding the perception of coastal communities and indigenous fishermen that MPAs create poverty, this needs to be addressed and communicated that responsibilities for protection will in future be spread more equally with the new network of MPAs. Recreational fishers will benefit from long-term sustainability due to the migration of fish from protected areas to areas that are open for fishing. The MPAs not only comprise no-take areas; within the MPAs there are also areas zoned for fishing access, and these areas are called controlled zones. In the controlled zones of the MPAs certain activities are allowed to take place with an appropriate permit, such as recreational permit, small scale fisheries permit and coastal water discharge permit. The outcomes of MPAs have been shown to be fisheries stock recovery and better management of a variety of human activities. These activities can include marine and coastal tourism as well as expanded heritage tourism and better management.

How does the behaviour contribute to the socio-economic problem addressed?

There is no sufficient offshore protection in the marine environment and this network seeks to close the gap and this will have positive benefits for offshore industries such as deep-sea trawling industry. Promote awareness among fishing communities to enable them to better understand ecosystem services.

The coastal communities feel that the current MPAs are targeted with little focus on offshore, commercial and illegal operators.

b) How does the proposal aim to bring about the desired change?

The proposal will bring the desired change in the sense that there will be an increase in the protection of the marine environment that will, in turn, increase the protected areas estate. The increase in protection will potentially alleviate poverty in the fishing communities as there will be sustainable fish stocks in the marine ecosystems services.

2.3. Consultations

a) Who has been consulted inside of government and outside of it? Please identify major functional groups (e.g. business; labour; specific government departments or provinces; etc.); you can provide a list of individual entities and individuals as an annexure if you want.

**Consulted Government Departments, Agencies and Other Organs of State**

<b>Department's name</b>	<b>What do they see as main <u>benefits</u>, <u>Implementation/</u> <u>Compliance costs</u> and <u>risks</u>?</b>	<b>Do they <u>support</u> or <u>oppose</u> the proposal?</b>	<b>What <u>amendments</u> do they propose?</b>	<b>Have these amendments been <u>incorporated</u> in your proposal? If yes, under which section?</b>
<p>Department of Agriculture Forest and Fisheries,                      Department of Mineral Resources,                      Department of Transport,                      Department of Planning                      Monitoring and Evaluation,                      Provincial Department of Environment in four coastal Provinces i.e. Northern Cape, Western Cape, Eastern Cape and KwaZulu-Natal.                      City of Cape, Nelson Mandela Bay Municipality, Alfred Nzo District Municipality, OR Tambo District Municipality, Buffalo City Municipality,</p>	<p>Benefits on increase in protected areas estate, an increase of natural resources, creation of job opportunities from the fisheries sector, conservation management. Protection and proper management of marine living and none marine living species.</p>	<p>Some stakeholders supported but others opposed the proposal subject to certain amendments in boundaries of this MPA network.</p>	<p>They proposed amendments in the boundaries of this MPA network, other stakeholders such as DAFF proposed rezonation of specific MPAs. Mining proposed that alternative ecosystems be explored to increase protection.</p>	<p>Subsequent to the comments received from the stakeholders, amendments have been incorporated in the final regulations.</p>

<b>Department's name</b>	<b>What do they see as main <u>benefits</u>, <u>Implementation/ Compliance costs</u> and <u>risks</u>?</b>	<b>Do they <u>support</u> or <u>oppose</u> the proposal?</b>	<b>What <u>amendments</u> do they propose?</b>	<b>Have these amendments been <u>incorporated</u> in your proposal? If yes, under which section?</b>
Amathole District Municipality, Sarah Baartman District Municipality, Eden District Municipality				

#### Consulted stakeholders outside government

<b>Name of Stakeholder</b>	<b>What do they see as main <u>benefits</u>, <u>Implementation/ Compliance costs</u> and <u>risks</u>?</b>	<b>Do they <u>support</u> or <u>oppose</u> the proposal?</b>	<b>What <u>amendments</u> do they propose?</b>	<b>Have these amendments been <u>incorporated</u> in your proposal?</b>
Mining and Petroleum Industry	The mining industry did not initially support the MPA network and their benefits as they were concerned about being excluded out of areas they had earmarked as potential exploration grounds.	Subsequent to their suggested amendments and recommendations that were made on the draft regulations that were gazetted, they supported the MPA network.	No amendment proposed instead DMR is undertaking the study of researching the Oceans Space where the exploration can be undertaken. The first phase of such study has been presented to DEA and to the WG 8 stakeholders.	The amendments have been acknowledged and our proposal has been shared to DMR to complement the research.
Fishing industry	Fisheries stock recovery, future job sustainability.  The fishing industry is willing to assist with the compliance and enforcement of the offshore MPAs.	Fisheries are in full support as most of the MPAs allow wild capture fishing and fish farming.	They suggested the establishment of MPA Advisory forum that they will join to provide inputs on the management of these MPAs. The Industry also suggested the inclusion of industry fisheries forum in order to make more comprehensive inputs.	Subsequent to the comments received from the stakeholders, Subsequent to the comments received from the stakeholders, amendments have been incorporated in the final regulations.

Name of Stakeholder	What do they see as main <u>benefits</u> , <u>Implementation/ Compliance costs and risks</u> ?	Do they <u>support</u> or <u>oppose</u> the proposal?	What <u>amendments</u> do they propose?	Have these amendments been <u>incorporated in your proposal</u> ?
Business sector	<p>Benefit in terms of fishing recruitment, sales, the sustainability of the sector and fisheries community cooperatives.</p> <p>There will be increased tourism (e.g. Boat Base Whale Watching and White Shark Cage Diving Operations).</p>	The business sector fully supports the proposal, with the suggestion of more visible policing to be done on this MPA network.	They proposed transformation in business sectors.	Amendments have been incorporated in the final regulations.
Communities across all coastal provinces	<p>Communities in three coastal provinces were in support of these MPA regulations except for KwaZulu-Natal (iSimangaliso MPA).</p> <p>The small-scale fishing communities will benefit from the MPA regulations through the Implementation of the Small-scale Fisheries Policy.</p> <p>Communities will assist management authorities in the protection and management of the resources.</p> <p>Potential risks include disgruntled communities due to lack of stakeholder consultation on the declaration of the MPA network and regulations.</p>	Some communities opposed Operation Phakisa MPAs due to information not being filtered through to all stakeholders.		
Academia and Research Institutions	Benefits through research, training and development of students in the marine sector.	They support.	They propose further research areas to be explored for more protection.	Yes

- b) Summarise and evaluate the main disagreements about the proposal arising out of discussions with stakeholders and experts inside and outside of government. Do not give details on each input, but rather group them into key points, indicating the main areas of contestation and the strength of support or opposition for each position

The main disagreements were on the boundaries and overlaps with regards to mining, oil and gas explorations. The support was on the increase of the conservation estate of the ocean space, recruitment for key fisheries stocks that contributes positively to the GDP of South Africa. Also, support on the tourism sector in terms of non-consumptive use of species for economic benefits (e.g. scuba diving, boat based whale and dolphin watching and white shark cage diving).

#### 2.4. Assessment of costs and benefits to stakeholders inside and outside of government

Both stakeholders inside and outside of government were concerned about Compliance and Enforcement on these MPAs. The concern is due to the lack of capacity and resources that the government does not have.

The government acknowledges that additional funds will be required for the management of MPAs as well as additional responsibilities to existing MPA entities. Communities and business operators will benefit because there will be more economic opportunities in these MPAs through the increase in marine and coastal tourism initiatives.

Outside government, research institutions will assist the government on research projects. More public-private partnership will be established to jointly manage the MPAs for government and for the private sector.

- 2.5. Describe the groups that will benefit from the proposal, and the groups that will face a cost. These groups could be described by their role in the economy or in society. Note: NO law or regulation will benefit everyone equally so do not claim that it will. Rather indicate which groups will be expected to bear some cost as well as which will benefit. Please be as precise as possible in identifying who will win and who will lose from your proposal. Think of the vulnerable groups (disabled, youth women, SMME), but not limited to other groups.

Small-scale fisheries and fishing industry at large will benefit from this proposal but at the same time bear the cost as they will not be able to fish in the restricted areas of MPAs. The conservationists and conservation NGOs will face the costs as they do not fully support the zonation of the MPA network for aquaculture and the discharge of effluent in the coastal zone. The Green Peace organisation will face the costs and they will undertake studies of monitoring the receiving end environment on effluent through coastal water discharge points.

The economic sector cluster will benefit more especially on the approved Industrial Development Zones areas. The mining and oil and gas industry will bear costs due to the inability to conduct exploration in the network of MPAs.

The environmental departments and entities will require human resource capacity, funds, gear and equipment (e.g. vessels, vehicles, computers, cellphones, and two-way radios) that will be required to manage the MPAs.

List of beneficiaries (groups that will benefit)	How will they benefit?
Fishing Industry	Increase in fisheries stock on the MPAs.
Fishing communities	Benefit by fishing in controlled zones of the MPAs.
Research Institutions	More research and monitoring in MPAs
Small Micro Medium Enterprise business	Establishment of small-scale fishing local businesses, and more fish sales due to an increase in fish stock in and outside of the MPAs.
Ecosystems services	Provide more resources, goods and services as well as a variety of species within the habitat.

List of cost bearers (groups that will bear the cost)	How will they incur/bear the cost
Conservationists	The concerns of conservationists include: Discharge of effluent in MPAs, unauthorised fishing and certain developments may incur time and monetary costs in following up on these concerns.
Conservation NGOs	Conservation NGOs support more restricted zones and less controlled zones in which certain activities are allowed. They are likely to lobby for stricter protection as well as full implementation of the MPAs.
Mining and oil and gas industry	Bear the cost due to the inability to conduct exploration and exploitation in the network of MPAs.
Environmental departments and entities	Human resource capacity, funds, gear and equipment will be required for monitoring and compliance (e.g. vessels, vehicles, computers, cellphones, two-way radios).

2.6 Describe the costs and benefits of implementing the proposal to each of the groups identified above, using the following chart. Please do not leave out any of the groups mentioned, but you may add more groups if desirable. Quantify the costs and benefits as far as possible and appropriate. Add more lines to the chart if required.

*Note: "Implementation costs" refer to the burden of setting up new systems or other actions to comply with new legal requirements, for instance new registration or reporting requirements or by initiating changed behaviour. "Compliance costs" refers to on-going costs that may arise thereafter, for instance providing annual reports or other administrative actions. The costs and benefits from achieving the desired outcomes relate to whether the particular group is expected to gain or lose from the solution of the problem.*

*For instance, when the UIF was extended to domestic workers:*

- *The implementation costs were that employers and the UIF had to set up new systems to register domestic workers.*
- *The compliance costs were that employers had to pay regularly through the defined systems, and the UIF had to register the payments.*
- *To understand the inherent costs requires understanding the problem being resolved. In the case of UIF for domestic workers, the main problem is that retrenchment by employers imposes costs on domestic workers and their families and on the state. The costs and benefits from the desired outcome are therefore: (a) domestic workers benefit from payments if they are retrenched, but pay part of the cost through levies; (b) employers pay for levies but benefit from greater social cohesion and reduced resistance to retrenchment since workers have a cushion; and (c) the state benefits because it does not have to pay itself for a safety net for retrenched workers and their families.*

Group	Implementation costs	Compliance costs	Costs/benefits from achieving desired outcome	Comments
Fishing industry		<p>More personnel required to be employed to conduct Compliance and Enforcement in the MPAs and to undertake the monitoring of activities.</p> <p>Economic costs due to increased distances to be travelled to alternative fishing sites in certain instances.</p>	<p>Protection of the marine species to provide greater sustainability of ecosystem goods and services. This industry will thus be able to maintain sustainable employment opportunities due to the improved fish stocks at sea (both within and outside MPAs).</p>	<p>The fishing industry and government need to work together for the long-term protection of fish stocks within and outside the MPAs.</p>
Fishing communities		<p>Application fee for a permit and meeting other necessary permit conditions and requirements such as regular reporting of catches (likely to be offset by the use of cellphone technology).</p> <p>Economic costs due to increased distances to be travelled to alternative fishing sites (controlled zones within MPAs or outside MPAs). This could involve travel by land or increase distances on small vessels.</p> <p>In some instances, fish may not be available in controlled zones (for example due to weather conditions) which means reduced catches and/or greater travel time</p> <p>Procurement of additional fishing gear and bait.</p>	<p>Fishing communities will bear some costs of travelling and participation in public meetings during the initial implementation.</p> <p>However, communities will be better informed about the dos and donts of fishing (e.g. allowed species, bag and size limits) and the areas in which they can fish from within MPA.</p> <p>The significant benefit to communities is that the long-term sustainability of catches available will be improved as well as potentially increases in catch rates.</p>	<p>Partnership and co-management arrangements should be developed for community fishing in MPAs in line with Small-scale fisheries policy and relevant legislation.</p>

<b>Group</b>	<b>Implementation costs</b>	<b>Compliance costs</b>	<b>Costs/benefits from achieving desired outcome</b>	<b>Comments</b>
Government Research	More budget will need to be secured for additional research and monitoring of the MPAs. As many of these MPAs fall within Ecologically or Biologically Significant Areas such research costs have largely been anticipated.	Marginal cost in processing a greater number of research permits and ensuring compliance with permit conditions.	Benefits will be more and better evidence to inform conservation and sustainable use policies.  The research will also point to gaps in the coverage of the currently proposed network that in future may require attention.	Research is fundamental to measure the effectiveness of MPAs in achieving the objectives for which they were designed.
Research Institutions	Research plans and costs (e.g. personnel, vessels, vehicles, equipment).	There are financial costs attached to the preparation of research proposals which form the basis for applications for research permits.	Benefits will be more and better evidence to inform conservation and sustainable use policies.  The research will also point to gaps in coverage of the currently proposed network that in future may require attention.  The research being undertaken is offering significant capacity building opportunities for young South African scientists.	Research is fundamental to measure the effectiveness of MPAs in achieving the objectives for which they were designed.  Research institutions ensure high scientific standards.
Small Micro-Medium Enterprise businesses	Infrastructure and equipment are required for the anticipated increase in employment opportunities.	Permits to obtain, process and sell fish are required.	There will be more job opportunities for Small Micro Medium Enterprise businesses, which will contribute to economic development.  There will be transformation in the fishing, fish processing and marine tourism sectors as small companies will emerge and grow.	This will need to be taken forward together with other departments as well as sectors involved.

Group	Implementation costs	Compliance costs	Costs/benefits from achieving desired outcome	Comments
Ecosystem services	Budget for research and monitoring of ecosystem services performance	The appointment of personnel to monitor progress in the marine ecosystem and constrain activities with negative impacts.	More jobs created and potentially more food supplied by healthy marine ecosystems.	<p>Ecosystems services need to be protected and conserved for sustainable development.</p> <p>The utilisation of partners in Compliance and Enforcement will be needed to be protected and conserve the ecosystem in keeping with the MPA regulations.</p>
Conservation NGOs	Environmental education and awareness efforts need to be budgeted for by the conservation organisations as per each ones own specific focus area	This requires knowledge of the legislation and policy framework on the environment and may involve personnel costs in the organisations, depending on their focus.	<p>Conservation of the MPAs will result in the increase of variety of species within the MPAs. This will also benefit research and assessing stock recovery.</p> <p>Increase the impact of environmental education to help the public understand the benefits of MPAs and potential impacts.</p> <p>The environment will be the winner at the end, as the NGOs support sustainable utilisation of the environment.</p>	<p>Conservation of species and habitats are key objectives of MPAs.</p> <p>NGOs could be involved in the management of MPAs in appropriate ways such as participating in MPA advisory forums, as well as the development and implementation of management plans.</p>

Group	Implementation costs	Compliance costs	Costs/benefits from achieving desired outcome	Comments
Environmental departments and entities	<p>The cost of gazetting the declaration notices and regulations of the network of MPAs.</p> <p>Communicate with the public, fishing communities and industry using education and awareness campaigns focussed on the new MPAs and the individual regulations.</p> <p>DEA and MPA entities will have to increase staff.</p>	<p>The police and courts have been approached through Operation Phakisa Initiative 5 (Coordinated Enforcement Programme) to provide enforcement and compliance.</p> <p>Human resource capacity, funds, gear and equipment will be required for monitoring and compliance.</p>	<p>Expenses of proper communication should be valuable in reducing the higher costs of non-compliance. As prevention of negative impacts in the early stages is more cost effective than doing so when they are established or more widespread.</p> <p>Roadshow will assist communities and the fishing fraternity on understanding their role in the effective functioning and management of MPAs.</p>	<p>Planning for proper communication is crucial.</p> <p>Fishing needs to be regulated through the Marine Living Resources Act and National Environmental Management: Protected Areas Act. Activities include permitting, compliance and additional catch monitoring (to be conducted together with fishing industry)</p>
Mining and oil and gas industry	<p>Approximately 5% of the EEZ will no longer be available to the oil and gas and mining industry.</p>	<p>Despite the sector being consulted, the boundaries of the MPAs were and will be formally communicated to this industry which they need to comply with since no commercial exploration of mining, oil and gas is allowed in MPAs. The boundaries will be communicated through appropriate (electronic) GIS formats that the industry uses and protected areas registry.</p> <p>Developments which could impact the MPAs from outside their boundaries may require additional environmental safeguards.</p>	<p>Applications for mining and oil and gas exploration outside MPAs should be able to be expedited with the knowledge that most key habitats are conserved within the overall network of new and existing MPAs.</p>	<p>Ongoing discussions regarding good environmental practise by the industry need to be held.</p>

2.7 Cost to government: Describe changes that the proposal will require and identify where the affected agencies will need additional resources

- a) Budgets, has it been included in the relevant Medium Term Expenditure Framework (MTEF) and

DEA has budgeted for the management of these MPAs under the Operation Phakisa: Oceans Economy budget. Key activities budgeted for include gazetting of the network of MPAs, a suite of communication activities (roadshows, newspapers), compliance and enhanced management of the MPAs (including management plans). Research activities will come from both the Operation Phakisa budget and the Chief Directorate: Oceans and Coasts Research within the Oceans and Coasts branch of the DEA.

- b) Staffing and organisation in the government agencies that have to implement it (including the courts and police, where relevant). Has it been included in the relevant Human Resource Plan (HRP)

DEA and MPA entities will have to increase staff capacity. Certain MPA entities will also have to increase the staff in certain functional areas e.g. research, compliance and monitoring. The police and courts have been approached through Operation Phakisa initiative 5. Initiative 5 Enhance coordinated Enforcement and Compliance structure agreed to provide enforcement and compliance at MPAs with little personal and resources they have.

*Note: You MUST provide some estimate of the immediate fiscal and personnel implications of the proposal, although you can note where it might be offset by reduced costs in other areas or absorbed by existing budgets. It is assumed that existing staff are fully employed and cannot simply absorb extra work without relinquishing other tasks.*

The existing staff will not relinquish any function, instead, there will be a proposal of additional personnel to manage MPAs. DEA will seek to partner other organisations where appropriate in managing the MPAs. Some of these costs (e.g. communication) may not only come from the department's budget but organisations have indicated willingness to support the MPA initiative with their own resources. Details of additional compliance activities and costs are contained within the Operation Phakisa Coordinated Enforcement Programme.

2.8 Describe how the proposal minimises implementation and compliance costs for the affected groups both inside and outside of government.

The compliance cost was developed concurrently to the MPA initiative as part of Operation Phakisa. Prior to implementation, meetings have been held with management entities in order to discuss the implementation costs of managing the MPAs. Resources will be pooled together as part of planning and implementation to save costs and maximise compliance benefits.

Communities on the ground will be requested to assist with compliance in particular through observation of activities which affect them. DEA also intends to request the fishing industry to assist in compliance initiatives. DEA will also utilise Working for the Coast teams along the coast to be eyes and ears of DEA regarding illegal activities occurring along the coast.

**For groups outside of government (add more lines if required)**

<b>Group</b>	<b>Nature of cost (from question 2.6)</b>	<b>What has been done to minimise the cost?</b>
Fishing industry	Extra steaming time to catch fish and additional administrative costs to manage their operations.	Key fishing areas were deliberately excluded as far as possible from the network of MPAs. Improved long-term sustainability should offset short-term costs.
Fishing communities	Extra travelling time and acquiring additional equipment to catch available species.	MPAs were zoned to allow for small-scale fishing communities to have access in or as close as possible in the favourite sites. The communities will also benefit from the increased sustainability and protection of adjacent offshore areas.
Research Institutions	Infrastructure and operational costs required to undertake research.	Research proposals from private research institutions are showing increasing funding for research on MPAs. Collaboration between research organisations and government can minimise costs.
Small Micro-Medium Enterprise businesses	Infrastructure, equipment and possibly personnel costs and administrative expenses (e.g. new permits).	Departments with developmental mandates are supporting this sector including those operating in and around MPAs.
Conservation NGOs	Staffing and communication costs	NGOs are voluntarily opting to promote MPAs using their funding.
Mining and oil and gas industry	The opportunity costs by 5% of the EEZ being unavailable.	Access to 95% of the EEZ that is outside of MPAs can be facilitated by the fact that many representative habitat types are included in MPAs. Opportunity costs could be offset in this manner.

**For government agencies and institutions:**

Agency/institution	Nature of cost (from question 2.6)	What has been done to minimise the cost?
Environmental departments and entities	<p>The cost of gazetting the declaration notices and regulations of the network of MPAs (i.e. DEA budgeted R929 000 once off).</p> <p>DEA and entities will communicate with the public, fishing communities and industry using education and awareness campaigns focussed on the new MPAs and the individual regulations.</p> <p>DEA and MPA entities will have to increase staff.</p> <p>The police and courts have been approached through Operation Phakisa Initiative 5 (Coordinated Enforcement Programme) to provide enforcement and compliance.</p>	
<b>Entities</b>		
iSimangaliso Wetland Park Authority	There are a number of communities within the iSimangaliso Wetland Park boundary that will need to be managed regarding.	iSimangaliso Wetland Park Authority has existing programmes to deal with the communities in a holistic manner.
Ezemvelo KwaZulu-Natal Wildlife	Management of the Protea Banks, Aliwal Shoal, and uThukela MPAs are increased responsibilities for the entity as areas are either new or expanded.	Whilst efficiency may reduce costs, it is acknowledged that more support and resources for the entity will be needed to manage the MPAs.
Eastern Cape Parks and Tourism Agency.	New resources need to be sourced as the Amathole MPA is offshore.	Whilst efficiency may reduce costs, it is acknowledged that more support and resources for the entity will be needed to manage the MPAs.
South African National Parks	Issues include aquaculture development close to the Addo Elephant National Park MPA with its penguins at St Croix Island. In addition, industrial activities (e.g. shipping and bunkering) nearby proposed by Transnet will need to be monitored and managed.	Engagements with SANParks already held including costing regarding the management of Namaqua National Park, Addo and Robben Island MPAs as they are managing a high number of MPAs there will be efficiencies of scale.
Department of Agriculture Forest and Fisheries (DAFF)	Compliance and Enforcement on offshore MPAs i.e. those not managed by management entities as set above. DAFF will need to cooperate with DEA with regards	Offshore compliance and activities, as well as offshore surveillance, are largely funded by the Operation Phakisa initiatives minimising the amount that DAFF needs to contribute to these functions.

<b>Agency/institution</b>	<b>Nature of cost (from question 2.6)</b>	<b>What has been done to minimise the cost?</b>
	to small-scale access in the inshore MPAs.	Cooperation with the entities managing the inshore MPAs will assist DAFF in managing small-scale fisheries.
Department of Mineral Resources (DMR)	The opportunity costs by 5% of the EEZ being unavailable will also impact DMR as they may have received revenue from such areas.	DEA will cooperate with DMR to provide cost-effective and sound environmental standards for oil and gas exploration outside the MPAs.
Government research	Government is committed to undertaking research and monitoring in protected areas including MPAs.	Cooperation between government departments such as joint research cruises is well established and will continue to serve joint government objectives e.g. fisheries and environment.

## 2.9 Managing Risk and Potential Dispute

- a) Describe the main risks to the achievement of the desired outcomes of the proposal and/or to national aims that could arise from implementation of the proposal. Add more lines if required.

One risk concerns the effective management of offshore MPAs. This is because DEA does not currently have personnel working on the Offshore MPAs doing Compliance and Enforcement. Fortunately, the offshore environment is amenable to surveillance as already developed by Operation Phakisa e.g. real-time vessel tracking. DEA will collaborate with DAFF (who already have an operational vessel monitoring system for all permitted fishing vessels) in ensuring compliance.

A second risk involves inshore MPAs where it is important that the management entities receive some additional resources in key areas to be effectively capacitated to undertake compliance and enforcement.

The compilation of Management Plans, as required by the National Environmental Management: Protected Areas Act, for both the coastal and offshore MPAs will be a major tool to ensure coordination and that risks and potential disputes are managed timeously and effectively.

*Note: It is inevitable that change will always come with risks. Risks may arise from (a) unanticipated costs; (b) opposition from stakeholders; and/or (c) ineffective implementation co-ordination between state agencies. Please consider each area of risk to identify potential challenges.*

- b) Describe measures taken to manage the identified risks. Add more rows if necessary.

*Mitigation measures means interventions designed to reduce the likelihood that the risk actually takes place.*

Note that unless otherwise stated the actions below will be funded/co-funded by the Operation Phakisa budget in order to achieve the effective management of the MPAs.

Identified risk	Mitigation measures
Insufficient personnel within DEA and entities to manage these MPAs	DEA and entities to increase staffing and/or re-focus resources and capacity from programmes such as Working for Coast
Limited budget	Use Operation Phakisa Budget for most aspects of management of MPAs. Staggering and prioritisation can be implemented with most attention being directed to areas of possible conflict. Funds will need to be spent on communication (as a priority) as effective communication will bring about savings later.

Identified risk	Mitigation measures
Offshore MPAs management	Memorandum of Agreement (MOA) with DAFF and involving Operation Phakisa Initiative 5 on MPA will assist in coordinating management. In addition, high-tech monitoring and surveillance of offshore MPAs.
Increased poaching and organised crime on MPAs	MPA entities have experienced units dealing with organized crimes syndicates, including rhino and abalone poaching and this capacity will be utilised.
Complacency and rigid management style	Encourage management entities to establish more positions to manage these new MPAs, including staff to deal with co-management and conflict resolution.  Economist to do a further economic analysis of benefits from these MPAs.  Link with Marine Spatial Planning such as during the compilation of MPA management plans especially in development areas like the Ngqura IDZ.

- c) What kinds of dispute might arise in the course of implementing the proposal, whether (a) between government departments and government agencies/parastatals, (b) between government agencies/parastatals and non-state actors, or (c) between non-state actors? Please provide as complete a list as possible. What dispute-resolution mechanisms are expected to resolve the disputes? Please include all of the possible areas of dispute identified above. Add more lines if required.

*Note: Disputes arising from regulations and legislation represent a risk to both government and non-state actors in terms of delays, capacity requirements and expenses. It is therefore important to anticipate the nature of disputes and, where possible, identify fast and low-cost mechanisms to address them.*

Nature of possible dispute (from sub-section above)	Stakeholders involved	Dispute-resolution mechanism
Possible disagreements Depending, to some extent, on the outcomes of Environmental Authorisation processes for aquaculture activities prohibited by the MPA.	DEA, DAFF and respective stakeholders (industry and conservationists)	Regular high-level meetings and MOA for any unfolding issues. This matter has been resolved for instance in the Addo MPA.
Zonation of MPAs is seen as excluding previous popular fishing areas.	DEA, DAFF, Recreational and Small-scale fishers.	Engagements between departments and with fisher organisations.

Nature of possible dispute (from sub-section above)	Stakeholders involved	Dispute-resolution mechanism
		The public consultation process focussed on these issues but not all stakeholders will be satisfied with the outcomes.
Compliance needs to be effective but even-handed.	DEA, DAFF, entities and stakeholders; environmental courts.	Guidelines for effective but human-focused compliance, especially during the initial implementation period, should be prepared (e.g. when to warn or when to prosecute).

Would it be possible to establish or use more efficient and lower-cost dispute-resolution mechanisms than those now foreseen? These mechanisms could include, for instance, internal appeals (e.g. to the Minister or a dedicated tribunal) or mediation of some kind.

Nature of possible dispute	Proposed improvement in dispute-resolution mechanism
How best to allow co-existence between MPAs and aquaculture development zones.	Regular high-level meetings and MOA. Include affected industry and environmental experts in discussions.
Zonation of MPAs is seen as excluding previous popular fishing areas.	Engagements between departments and with fisher organisations should be ongoing to improve relations and if there are serious new grounds for dispute, DEA could consider re-looking zonation as a last resort.
Compliance needs to be effective but even-handed.	Compliance and social scientists, preferably within government entities, could meet to examine/review compliance approaches.

## 2.10 Monitoring and Evaluation

*a) When is implementation expected to commence after the approval of the proposal?*

The implementation of the MPA regulations is expected to commence two months after gazetting of the declaration notices and regulations in the 2019/2020 financial year.

*b) Describe the mechanisms that you will apply to monitor the implementation of the proposal after being approved.*

DEA already has existing MOAs with MPA entities, and they will report to DEA quarterly for the management of inshore MPAs. Additionally, regular discussions must be held with DAFF regarding the management of offshore MPAs.

*c) Who will be responsible for monitoring the implementation of this proposal?*

DEA will be the leading department in monitoring implementation of the proposed network of MPAs. This will be a joint effort with MPA entities as some MOAs are in place.

*d) What are the results and key indicators to be used to for monitoring? Complete the table below:*

<b>Results</b>	<b>Indicators</b>	<b>Baseline</b>	<b>Target</b>	<b>Responsibility</b>
<b>Ecological (as per biodiversity and protected areas acts):</b> Ecosystem integrity of the MPA areas is maintained and improved.	Change in habitat condition and key species abundance.	For some MPAs, detailed information is available and for others, national data will serve as the baseline (see National Biodiversity Assessment 2011 and 2019 being finalised).	Improved or maintained good habitat conditions; key species numbers are maintained or increased in abundance.	DEA (including SANBI), DAFF, management entities, and established research organisations.
<b>Expansion of protected area estate (as per Outcome 10):</b> Significant positive movement towards national and global conservation targets.	Percentage of the area under protection and effectively managed.	0.4% of EEZ under protection and managed (measured by management effectiveness tracking tool-METT).	5% of EEZ under protection and effectively managed as measured by METT.	DEA and management entities.
<b>Socio-economic (as per Operation</b>	New research guided by the recently	Previous socio-economic	Local communities benefit	DEA, DAFF, management entities and

<b>Results</b>	<b>Indicators</b>	<b>Baseline</b>	<b>Target</b>	<b>Responsibility</b>
<b>Phakisa: Oceans Economy):</b> Socio-economic benefits (including goods and services) to local communities adjacent to the MPAs.	completed MPA effectiveness study.	studies as available.	measurably from environmental conservation.	established research institutions.

e) When will this proposal be evaluated on its outcomes and what key evaluation questions will be asked? Below please find evaluation questions for your consideration:

- i. *What was the quality of proposal design/content? (Assess relevance, equity, equality, human rights)*
- ii. *How well was the proposal implemented and adapted as needed? (Utilise the Monitoring and Evaluation plan to assess effectiveness and efficiency).*
- iii. *Did the proposal achieve its intended results (activities, outputs and outcome) as per the Monitoring and Evaluation plan?*
- iv. *What unintended results (positive and/or negative) did the implementation of the proposal produce?*

*What were the barriers and enablers that made the difference between successful and failed proposal implementation and results?*

- v. *How valuable were the results of your proposal to the intended beneficiaries?*

f) Please provide a comprehensive implementation plan:

The plan included engaging MPA entities, DAFF and other responsible authorities such as the Robben Island Museum regarding operational support for the management of this proposed MPA network. Detailed contracts which are in existence will be amended and new ones are in preparation. The MPA entities will be required to report to DEA quarterly on the performance of each MPA. DEA and DAFF will manage offshore MPAs jointly. Additional enforcement and compliance joint operations will be conducted in the MPAs. Budget for the management of this MPA network will be derived from the Operation Phakisa initiative as well as DEA's operational budget. A major step will be the development of MPA management plans subsequent to the declaration of the MPA network. This has been planned to commence in the last quarter of the 2019/2020 financial year. In the 2019/2020 as part of the World Environmental Day, DEA intends to announce this milestone and launch the new MPA network. This will be done together with the management entities to ensure national coverage is achieved.

g) Please identify areas where additional research would improve understanding of then costs, benefit and/or of the legislation.

Ongoing research into the ecological benefits of the MPAs will be undertaken by the Chief Directorate: Oceans & Coastal Research and our partner organisations such as DAFF, Department of Science and Technology and entities such as SANBI, SANParks and provincial agencies. These ecological benefits will, in turn, result in the improvement of abundance and availability of commercial species and catches will be monitored by DAFF.

Additional socio-economic benefits will result from sustainable community access to resources and eco-tourism developments.

The MPAs will also contribute to the strengthening of our environmental management in the spatial planning space. MPA and Marine Spatial Planning research and monitoring programmes will be implemented under Initiative 9 of Operation Phakisa Marine Protected Governance Lab.

***For the purpose of building a SEIAS body of knowledge please complete the following:***

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## PART THREE: SUMMARY AND CONCLUSIONS

1. Briefly summarise the proposal in terms of (a) the problem being addressed and its main causes and (b) the measures proposed to resolve the problem.

The problem entailed addressing the lack of marine ecosystem protection on a scale sufficient to provide for sustainable ocean benefits including ecosystem services and fisheries. Currently, only 0.4% of our ocean space is under protection. The oceans worldwide, including South Africa, are experiencing declines in health and resources caused by mounting environmental pressures such as pollution, climate change and high levels of exploitation of natural resources. Protection of a representative network of coastal and marine areas was considered one of the most effective and proven methods to turn around this decline in ocean health and resources.

Thus, the proposal developed as part of Operation Phakisa: Oceans Economy, recommended an MPA representative network as a measure to resolve the problem. This was informed by both extensive scientific studies and considerations of other economic activities in the ocean environment. Other solutions such as compliance, enforcement and monitoring were considered to address the problem on a wider scale within the EEZ.

The proposal was supported by the Operation Phakisa initiative and thereafter gazetted by the Minister of Environmental Affairs for public comments. Further consultation and negotiations were held with relevant sector departments. Whilst most issues were resolved through modifications to the proposed network, certain competing interests between different users (primarily concerning the environment and mineral exploration and exploitation), remained.

The network, together with its remaining issues, was escalated to Cabinet for their support regarding the declaration of the network of 20 MPAs. On the 24<sup>th</sup> of October 2018, Cabinet approved the network of 20 MPAs to be declared.

2. Identify the social groups that would benefit and those that would bear a cost, and describe how they would be affected. Add rows if required.

Groups	How they would be affected
<b><i>Beneficiaries</i></b>	
1. Fishing industry	Possibly initial greater effort to reach fishing grounds but catches will become more sustainable due to the protected areas. Eco-certification will be improved.
2. Fishing Communities	Greater distances to be travelled to fishing areas in some instances but broad increases in sustainability and potential catch rates (improved food security).
3. Research Institutions	More opportunities for research, especially in MPAs. Benefit through research of species growth and recovery within the MPAs. Capacity building of young scientists and technicians.

4. Small Micro      Medium Enterprise business	Small-scale fishing local business opportunities due to the increase in fish stocks inside and outside of the MPAs.
<b>Cost bearers</b>	
1. Conservationists	Would be involved in checking of the implementation of the network of MPAs from a conservation viewpoint and promote the MPAs.
2. Conservation NGOs	They will be affected because they will be spending their own resources to promote the MPAs. They also play a watch-dog role at their own cost and need to be made aware of the activities which are and which are not allowed in MPAs.
3. Mining and oil and gas industry	Opportunity cost by not being able to explore or develop in 5% of the EEZ.
4. Environmental departments and entities	Cost to the implementation of the network of MPAs due to the compliance, enforcement, communication, research and monitoring

3. What are the main risks from the proposal in terms of (a) undesired costs, (b) opposition by specified social groups, and (b) inadequate coordination between state agencies?

Recreational fishers, although consulted, are likely to object to some of their more popular fishing areas being placed under protection (i.e. in no-fishing zones).

Communities may also be in opposition as the allowed fishing areas will be further from them in some instances (the negative impacts are short-term while the benefits are more in the medium to longer term).

In order to avoid inadequate coordination between state agencies, Management Plans need to be initiated as per the prescripts of the National Environmental Management: Protected Areas Act (section 39). These Management Plans need to address both plans, actions and responsibilities.

4. Summarise the cost to government in terms of (a) budgetary outlays and (b) institutional capacity.

Institutional arrangements are addressed through reviewing existing MOAs with the MPA entities. MPA entities have agreed to manage the MPAs. Budget is secured under Operation Phakisa. These MPAs were agreed in 2014 from the Operation Phakisa Targets and thus planning for progress and institutional capacity is one of the key topics dealt with in the MOAs with the entities.

5. Given the assessment of the costs, benefits and risks in the proposal, why should it be adopted?

The proposal should be adopted as the MPAs are for the countries' targets as per the 2014 Operation Phakisa targets. The MPAs are budgeted for under the Oceans Economy budget. South Africa already presented this proposal at the Convention on Biological Diversity (CBD) in November 2018 at Egypt. It would a negative outcome if the country cannot finish the commitment made at CBD and in 2014 (and confirmed in 2018) as well as at the World Parks Congress in 2014. Besides these international commitments, the main benefit of the proposal is towards the sustainable oceans economy. In the absence of MPAs, further declines in the ocean health and resources are very likely.

6. Please provide two other options for resolving the problems identified if this proposal were not adopted.

<b>Option 1.</b>	Other scientific initiatives such as EBSAs provide an indication of vulnerable habitats and species but do not themselves offer protection.
<b>Option 2.</b>	Indigenous knowledge has been used in areas where traditional use is still allowed despite areas being protected against outside exploitation. However, the current network has a strong focus on offshore protection.
<b>Option 3.</b>	<p>Fisheries management tools such as total allowable catch (TAC), size limits, bag limits etc. But these generally take a single species approach to protection. In contrast, MPAs offer protection to ecosystems, and therefore many more species, as well as the target species, benefit in ways such as improved breeding and recruitment.</p> <p>The importance of fisheries management is recognised by eco-certification agencies such as the marine stewardship council which takes a science-based approach to sustainable fisheries and economic benefits.</p>

7. What measures are proposed to reduce the costs, maximise the benefits, and mitigate the risks associated with the legislation?

Pool resources for the coordinated and effective management of MPAs. DEA has to update all concerned sector departments and management agencies on legislative institutional arrangements as per National Environmental Management: Protected Areas Act, Marine Living Resources Act and National Environmental Management: Integrated Coastal Management Act.

Similarly, the public needs to be fully informed so that as users they can abide by the MPA regulations and recognise the benefits of the MPAs.

8. Is the proposal (mark one; answer all questions)

	Yes	No
a. Constitutional?	Yes	
b. Necessary to achieve the priorities of the state?	Yes	
c. As cost-effective as possible?	Yes	
d. Agreed and supported by the affected departments?	Yes	

9. Which NDP priorities would be most supported by this proposal?

The relevant NDP priorities that this proposal supports include:

- Chapter 5 (Ensuring environmental sustainability and an equitable transition to a low-carbon economy) of the NDP, which talks of Sustainable Development and Job opportunities, integrated planning with government planning.
  - Outcome 10 (protecting and enhancing our natural resources)
  - Green and blue economy
  - Percentage of the area under protection and effectively managed
- Chapter 6 (Inclusive Rural Economy).