Integrating Indigenous and Local Knowledge in Marine Spatial Planning

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Recommendations

- Marine spatial planning (MSP) processes need to be co-developed with Indigenous and local knowledge holders from inception for such processes to be contextual, equitable, and transparent. Enabling factors include thinking out of the box, taking the time to engage, listen and collaborate, and strengthening stakeholder capacity for co-development.

- Stronger links need to be forged between South Africa's MSP Act and the Indigenous Knowledge Act through enhanced working relationships between the National MSP Working Group and the National Indigenous Knowledge Systems Office.

- Co-management approaches and specific cultural activity zones should be implemented to increase access to coastal areas for Indigenous and local knowledge holders.

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Executive summary

Indigenous and local knowledge holders and cultural heritage continues to be largely neglected in ocean governance, especially area-based management approaches such as marine spatial planning in South Africa – and more broadly along the African coast. This policy brief highlights six areas through which a more diverse range of knowledge holders can be better integrated into these processes in South Africa. The recommendations are a result of a collaborative effort between Indigenous and local coastal and marine knowledge holders who live and work in Algoa Bay, South Africa, together with civil society organisations and local, provincial, and national government authorities.

Introduction

The importance of recognising and integrating both Indigenous and local knowledge holders (ILK) and cultural heritage in area-based ocean management approaches such as marine spatial planning (MSP) cannot be understated. They often define or contribute to human interactions with the ocean and coast. Social and cultural knowledge of, and interactions with, the ocean 'will impact ecological and economic aspects of these systems, and vice versa, and must therefore be considered at an equal basis to ensure ocean governance efforts reach their objectives'.[1] MSP is a public and political process that allocates portions of the coast and marine areas for different human activities to achieve a balance between ecological, economic, and social objectives. It should therefore be an ideal approach to achieve integrated ocean management in South Africa.

In 2017, South Africa became the first African country to draft MSP legislation (with the Marine Spatial Planning Bill 2017, or MSP Bill 2017). MSP in South Africa had its inception in the 'National Environmental Management of the Oceans' White Paper from 2014 and is historically linked to the concepts of Integrated Coastal Zone Management and Large Marine Ecosystem Management.[2] The Operation Phakisa 'Unlocking the Ocean Economy' initiative was also launched in the same year, which emphasises economic growth and job creation by unlocking the economic potential of South Africa's oceans. MSP Bill 2017 outlines a framework that can enable a 'sustainable blue economy' while fostering socio-economic development. In 2018 the MSP Act[3] was gazetted and in April 2021 it was signed into operation, providing mandatory requirements for the establishment of marine area plans[4] for four regions along South Africa's coastline (see Figure 1). The Algoa Bay MSP

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1   Mia Strand, Nina Rivers, Rachel Baasch, Bernadette Snow, 'Developing arts-based participatory research for more inclusive knowledge co-production in Algoa Bay,' *Current Research in Environmental Sustainability*, Volume 4 (2022).

2   Merle Snowman and Niel Malan, 'Review of progress with integrated coastal management in South Africa since the advent of democracy,' *African Journal of Marine Science*, no. 40 (2018): 121–136.

3   Government of South Africa, Marine Spatial Planning Act 16 of 2018.

4   A marine spatial plan is the entire MSP for a country or region whereas a marine area plan is the actual demarcated areas that are each allocated their own plan within the broader MSP.

Project was launched in 2017 as part of a National Research Foundation Community of Practice to pilot the MSP process in South Africa. Algoa Bay serves as the pilot study with the ambition of informing MSP processes at a national scale.

Figure 1   South Africa's four Marine Planning Areas
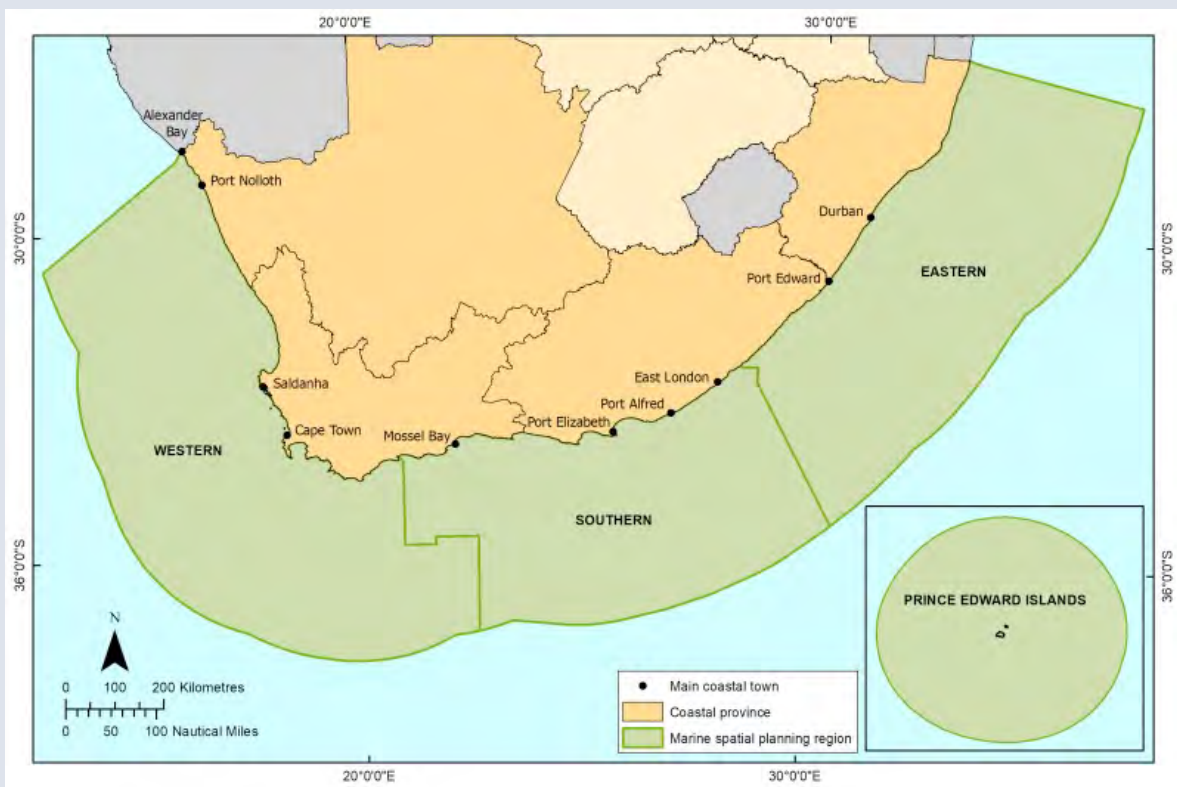
Source: Cape Town Department of Forestry, Fisheries and the Environment, 'National data and information report for marine spatial planning,' in *Knowledge baseline for marine spatial planning in South Africa* (Cape Town, 2021)

One of the key components of developing an MSP – in line with international best practice calling for such processes to be inclusive and equitable – is that it should be co-developed with the individuals, communities, and institutions that will be most impacted by the MSP. This includes not only engaging with people who use the ocean for food and livelihoods, but also with those who have cultural connections to the ocean and coast.[5] Historically, both internationally and in South Africa, ILK holders have been marginalised from ocean governance decision-making processes, particularly surrounding the establishment and operation of marine protected areas.[6] Even though this is slowly changing, the legacy

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5   Mia Strand, Nina Rivers, and Bernadette Snow, 'Reimagining Ocean Stewardship: Arts-Based Methods to 'Hear' and 'See' Indigenous and Local Knowledge in Ocean Management', *Frontiers in Marine Science*, Vol. 9 (2008): 1–19.

6   Merle Sowman and Jackie Sunde, 'Social impacts of marine protected areas in South Africa on coastal fishing communities,' *Ocean & Coastal Management*, Vol. 157 (2018): 168–179; Philile Mbatha, 'Unravelling the perpetuated marginalization of customary livelihoods on the coast by plural and multi-level conservation governance systems,' *Marine Policy*, Vol. 143 (2022).

of exclusion has continued to a large extent, posing several challenges to conservation, planning and management.[7]

The lessons presented below are a result of a multi-stakeholder workshop held in 2022 with 31 Indigenous and local ocean knowledge holders and national, provincial, and local coastal authorities and managers. The workshop was a collaborative effort to identify concrete areas of change and practical recommendations to integrate ILK holders into MSP.

Lessons learnt

This policy brief identified six key actions to integrate different knowledge systems into marine spatial planning processes, to encourage equitable and sustainable ocean governance along South Africa's coastline.

1   Prioritise early co-development of MSP and Marine Protected Area management plans with Indigenous and local knowledge holders

The development and implementation of marine area plans must be context-specific and cannot be generalised along an entire country's coastline. Even though South Africa currently has four marine area plans (Western, Southern, Eastern and the Prince Edward Islands, see Figure 1) much socio-cultural, economic, and historical diversity among stakeholder groups is still found within each zone. Therefore Indigenous, traditional, and local knowledge holders will have varying and at times opposing priorities, interests, and connections to the ocean and coast. Adequate resources (eg, funds, time, capacity, skills, and knowledge) are therefore required to develop marine area plans that can account for different contexts, cultural heritages, and historical backdrops. To have context-specific ocean governance approaches, marine area plans must be co-developed with Indigenous and local communities through inclusive and meaningful engagement processes where all relevant stakeholders and their knowledge is acknowledged and incorporated into the plans from the beginning of the MSP process.

2   Increase transparency and two-way communication between coastal authorities and stakeholders

ILK holders seek increased transparency and two-way communication between themselves and coastal authorities. Due to an extended history of racism and exclusion from decision-making processes – and more recently within a climate of discontent with government-led processes – coastal communities are often suspicious of or indifferent to government-led

7   Nina Rivers et al., 'Pathways to integrate Indigenous and local knowledge in ocean governance processes: Lessons from the Algoa Bay Project, South Africa,' *Frontiers in Marine Science*, Vol.9 (2023): 1–17 (Doi: 10.3389/fmars.2022.1084674.).

initiatives. Direct lines of communication between coastal governance authorities and different user groups are required through in-person meetings, workshops, and functional and active coastal committees. There should also be an open-door policy by coastal authorities for Indigenous and local knowledge holders to contact them.

An emphasis is placed on two-way communication in this report because, 'communication' and 'stakeholder engagement' can often be one-way 'information sharing' or 'consultation' that is merely a tick-box exercise and usually inadequately considers stakeholder concerns or delivers intangible outcomes for affected coastal communities. The kind of engagement proposed here should be collaborative, where stakeholders are part of the knowledge creation and decision-making process. It should encompass communication that is strong and supported by enough capacity, adequate resources (eg, time, funding, and skilled people), and a legal framework that allows engagement to be meaningful. Clear and coordinated vertical and horizontal communication between different government departments is also recommended.

3   Increase access to relevant and accessible information and allow for stakeholder input

One way of better integrating ILK holders into MSP is to ensure information is easily accessible, relevant and usable. This knowledge sharing is improved through a two-way communication process where reliable platforms are created for people to share their own information, thereby inverting the power dynamics around knowledge creation. Stakeholders want access to relevant and current coastal and ocean management information, but they also want to provide their own input and knowledge.

At present, South Africa has the National Oceans and Coastal Information Management System (OCIMS) Marine Spatial Planning (MSP) Support Viewer Decision Support Tool (DeST), which provides consolidated data sources that can inform MSP and the development of marine area plans in South Africa. The host of OCIMS – the Department of Forestry, Fisheries and Environment – needs to integrate qualitative, socio-cultural data into the tool as currently it is largely built on quantitative ecological data layers, rendering the socio-cultural aspects of MSP invisible. These databases also need to be made more accessible to stakeholders with either no or limited access to computers, data, or internet through, for example, a user-friendly or data-free phone application. Additionally, more effort must be put into creating awareness around the existence of this tool. Finally, the use of more interactive tools should be considered to enable a more inclusive MSP process.

Coastal and marine management data and information, furthermore, needs to be tailored to specific audiences. ILK holders seek information that is presented in different languages and with informative visuals. They cannot contribute their knowledge if they do not properly understand the process to which they are being asked to contribute. Many individuals are also more visual learners so clear and succinct infographics should be used whenever possible. Any coastal information (eg, present and future legislation, data reports, and

documents sent out for review or comment) should be translated in several primary South African languages and presented clearly, avoiding technical language that may further exclude stakeholders from ocean governance processes. Competent knowledge brokers and science communicators, skilled at tailoring and packaging information for audiences, can assist to this end.

4 Designate coastal zonation and resourcing for cultural heritage development

Colonial and apartheid legislation, such as the Group Areas Act (1950), forcibly removed Indigenous and local communities from the coast, diminishing their cultural heritage. As a move towards redress, Indigenous and local knowledge holders seek access to coastal areas where they can practise and perform cultural and religious rituals and ceremonies. Some of these activities require the harvesting of certain plants and animals, the ritual slaughter of animals or the burning of fires – which are often prohibited in public or conservation areas – or the maintenance of certain structures, such as ancient fish traps. Stakeholders have therefore suggested the designation or zonation of certain coastal and marine areas for cultural practices. One way of achieving this is working with the South African Heritage Resources Agency toward delimiting and nominating identified areas of cultural significance as National Heritage Sites. Additional resources (eg, funds, research and learning, and government and stakeholder capacity) should be set aside to support coastal communities and Indigenous and local knowledge holders to not only identify and protect their tangible and intangible living cultural heritage, but to also enable it to grow for future generations.

5 Amend legislation regarding marine access and strengthen co-management approaches

A primary challenge raised by ILK holders is a continued lack of access to coastal and marine areas, which has its roots in South Africa's apartheid history. The government is mandated to protect the natural environment for the benefit of present and future generations through reasonable measures that include the enactment of legal instruments. The relevant measures must 'secure ecologically sustainable development and use of natural resources while promoting justifiable economic and social development'.[8] Accordingly, the new Draft White Paper on the Conservation and Sustainable Use of South Africa's Biodiversity (2022) acknowledges 'the significance of equity and sustainable use of wild resources and the need to guide transformation to achieve equity'. However, key outcomes still emphasise 'strengthened' conservation and protected areas, which usually translate into stricter laws that may deny access for local communities to certain areas. Nevertheless, emphasis on conservation in existing legal instruments does not necessarily

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8   South African Constitution, Founding Provision 24 b. iii.

translate into exclusion. Especially where explicit references to include ILK holders are made, where co-management approaches are adopted, and implementation is closely monitored.

The relevant instrument that requires a holistic approach is the Marine Spatial Planning Act, 16 of 2018 (MSP Act). Indeed, the relevance of the MSP Act is that its provisions prevail over all other instruments as far as MSP is concerned.[9] Instruments that have had the effect of denying or limiting access of Indigenous communities to coastal areas and resources may be revised. This is to establish consistency with the criteria for MSP that requires 'the promotion of collaboration and responsible use of the ocean through consultation and cooperation'.[10] Certainly, the MSP Act recognises the changing character of the marine environment and aims to 'develop and implement a shared marine spatial planning system that can be accessed by all sectors and users of the ocean'.[11] Recommendations have been made that would bring some applicable environmental instruments in line with the MSP Act and approved marine area plans.[12] Nevertheless, further review of other environmental instruments must be done to ensure that they achieve the government's constitutional mandate to ensure the protection of the environment in a sustainable manner. As far as ILK holders are concerned, the relevant reviews will require specific incorporation of ILK holders into the MSP process (see Figure 2).

6   Ensure better alignment between MSP and Indigenous knowledge legislation

The Protection, Promotion, Development and Management of Indigenous Knowledge Act, 6 of 2019 (the Indigenous Knowledge Act) provides a legal framework for the protection, promotion, development, and management of Indigenous knowledge, through the National Indigenous Knowledge Systems Office (NIKSO). Key functions exercised by NIKSO, such as facilitating and coordinating the development of Indigenous knowledge, makes NIKSO a suitable body to incorporate relevant ILK into the MSP process. This would ensure that the development of marine area plans will take into consideration knowledge that 'has been developed within an Indigenous community and has been assimilated into the cultural and social identity of that community,'[13] and knowledge that is registered in terms of the Indigenous Knowledge Act. Of course this does not remove the need for government and other stakeholders to include local communities directly in MSP processes or to draw on the Indigenous and local knowledge held by these actors.

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9   MSP Act 16 Section 4 of 2018.
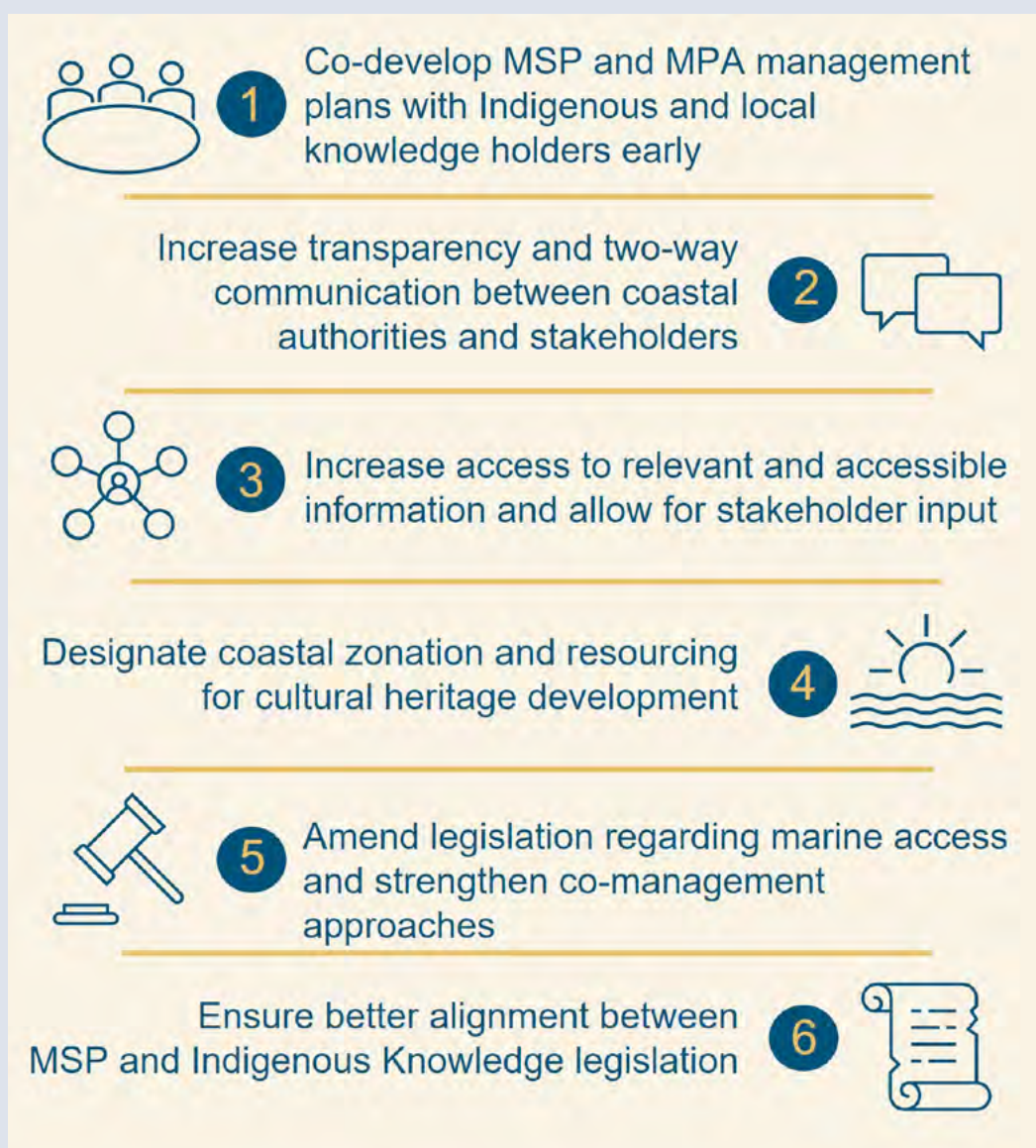10   MSP Act 16 Section 5(1)(c) of 2018.
11   MSP Act 16 Section 2(a) of 2018.
12   Denning Metuge, 'The impact of marine spatial planning legislation on environmental authorisation, permit and licence requirements in Algoa Bay, *Journal of Ocean Governance in Africa*, (2021): 79–122.
13   Government of South Africa, Indigenous Knowledge Act 6 of 2019; 'Indigenous knowledge' includes a) knowledge of a functional nature; b) knowledge of natural resources; and c) Indigenous cultural expressions.

Ocean governance legislation needs to also move beyond narrow conceptualisations of cultural heritage (eg, shipwrecks as the primary example of marine heritage) and understand Indigenous and local knowledge as intangible, living, and dynamic. The relevant shift in governance mechanisms, especially the MSP Act, would require political will in addition to amendments to the legislative framework. Certainly, the MSP Act requires that MSP knowledge include information relating to the matters prescribed by the Minister.[14] This gives the Minister a basis to emphasise substantive consideration of ILK holders' input in the MSP process.

Figure 2   Six pathways to integrate Indigenous and local knowledge holders in MSP in South Africa

1. Co-develop MSP and MPA management plans with Indigenous and local knowledge holders early

2. Increase transparency and two-way communication between coastal authorities and stakeholders

3. Increase access to relevant and accessible information and allow for stakeholder input

4. Designate coastal zonation and resourcing for cultural heritage development

5. Amend legislation regarding marine access and strengthen co-management approaches

6. Ensure better alignment between MSP and Indigenous Knowledge legislation

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14   MSP Act 16 Section 7(1)(f) of 2018; MSP Act 16 Section 13(b) of 2018.

This policy brief recommends that, short of amending the MSP Act, regulations should be made in terms of the Act that would require consultation with NIKSO. This is feasible because the wording of Section 8 of the MSP Act that deals with consultation does not infer that the list of relevant stakeholders contained therein is exhaustive. Moreover, specific inclusion would ensure that ILK holders are not overlooked. Another regulatory recommendation that would foster participation of ILK stakeholders in the development of MSP is the inclusion of a representative from NIKSO into the National Working Group (NWG) on MSP. Specific representation from NIKSO could foster the principle of 'promotion of equity between and transformation of sectors'[15] in MSP, while also protecting and managing the rights of ILK communities and holders.

Conclusion

To ensure equitable and meaningful integration of ILK holders into the MSP processes, knowledge informing marine spatial area plans must be context-specific, co-developed, and supported with accessible information and clear and consistent two-way communication. The connection between MSP and ILK policy frameworks and decision-making processes needs to be strengthened by including ILK stakeholders on national task teams and working groups, and amending legislation that limits access to coastal and marine areas. Co-management approaches and specific cultural activity zones should also be implemented to increase access to coastal areas for ILK users and cultural interactions.

The process of co-developing these policy recommendations has itself also provided useful insights into the conditions that support such inclusive processes. This includes creating safe spaces where diverse stakeholders can connect and express their concerns and desires about the ocean and coast. Adequate time must also be allocated for such processes, which extend beyond information sharing, advocacy, or traditional participation in workshops. Context is important and the process is not a one-size-fits-all approach – but there are central commonalities – namely taking the time to engage, listen and collaborate, thinking out of the box, and strengthening stakeholder capacity for co-development.

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15   MSP Act 16 Section 5(1)(g) of 2018.

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Acknowledgement

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Funding

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Wild Coast, Eastern Cape, South Africa: Oyster gatherers (Paul Gregg via iStock/Getty Images Plus)