

Mainstreaming community managed marine areas into the Western Indian Ocean's governance frameworks

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CONTEXT





Value and importance of marine resources and biodiversity to the livelihoods of millions of coastal people in the Western Indian Ocean



MANGROVES, CORAL REEFS, SEAFOOD, FISHERS, TOURISM OPERATORS — THEY'RE ALL CONNECTED.

Across the WIO, peoples' livelihoods and income are often inextricably linked to healthy functional ecosystems. When these are damaged, all pay the price.

PRIMARY ASSETS

	Marine Fisheries	US\$ 135.1 bn
	Mangroves	US\$ 42.7 bn
	Coral Reefs	US\$ 18.1 bn
	Seagrass	US\$ 20.8 bn

ADJACENT ASSETS

	Productive Coastline	US\$ 93.2 bn
	Carbon Absorption	US\$ 24.0 bn



Obura et al. 2017 Reviving the WIO economy.

The declining state of marine resources and biodiversity, including fish species disappearing, is a widespread problem

Going, going..., gone?



Sadovy de Mitcheson et al 2020

Regions Where Sharks Were Least Abundant

Of the 371 reefs that Global FinPrint surveyed, the regions below were least abundant with sharks, the area size is scaled to the relative percentage of decline in abundance for that region.



- Fish are an integral part of the WIO's biodiversity and are vitally important in peoples' livelihoods
 - Fish species and their fisheries are similar across WIO countries and therefore *regional policies* for fish conservation and fisheries management are very appropriate
 - Eastern Africa is one of the top 5 regions globally with the lowest numbers of reef sharks
 - Groupers in the WIO are highly depleted with healthy populations only in remote, or well enforced MPAs
- [Chabanet et al. 2016; Samoilyis et al. 2019]
<https://cordioea.net/groupers/>

Locally Managed Marine Areas (LMMAs) led by coastal communities



LMMAs are an alternative community-led governance mechanism

They deliver positive socio-economic and conservation outcomes

They are an inclusive, equitable and participatory approach to marine resource management

Management of Small Scale Fisheries (SSFs) is a large part of LMMA strategies

The LMMA approach has developed extensively in Kenya and Madagascar in the last 10-15 years

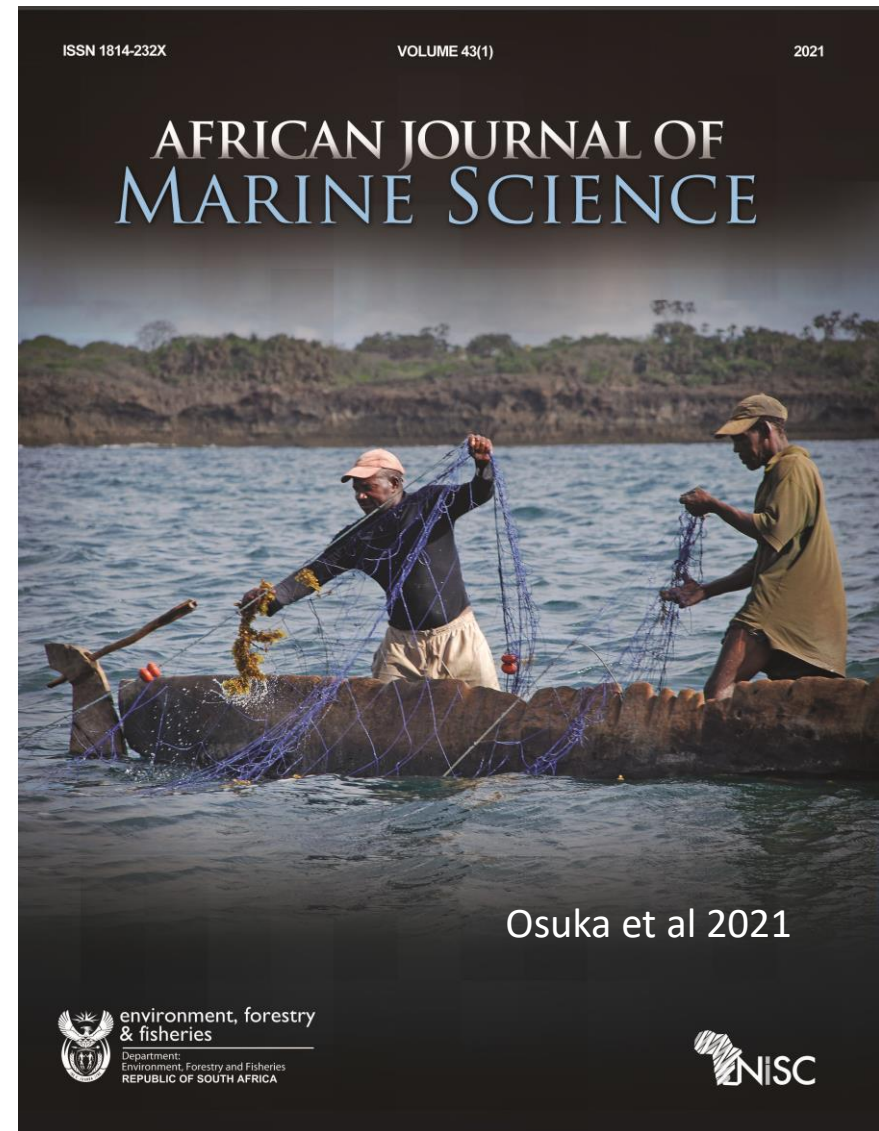
In this paper we discuss how mainstreaming community managed marine areas into the WIO's policy frameworks will improve marine area protection and SSF management, but this requires committed long term sustainable funding.



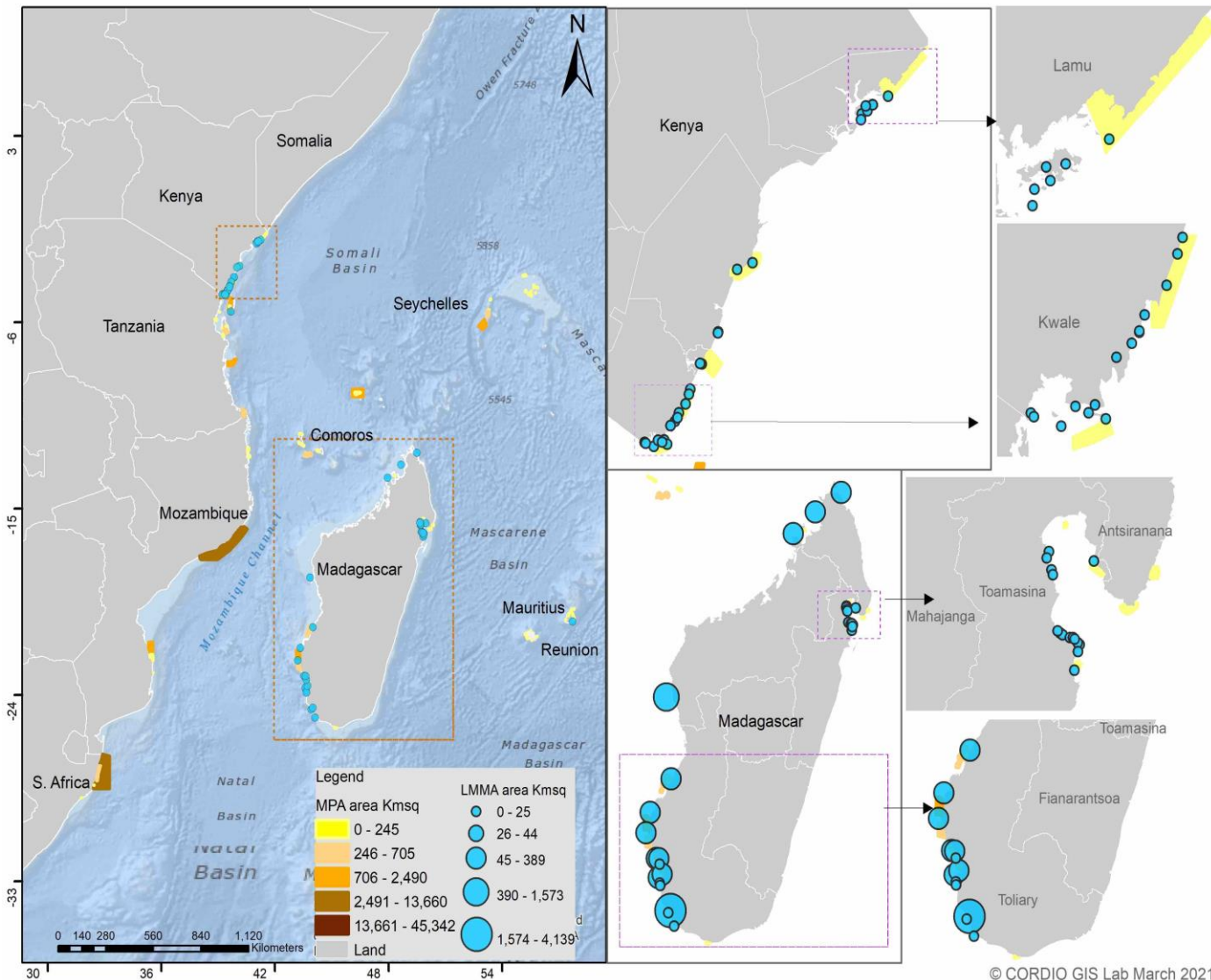
CAUSES of decline in marine resources

This paper proposes policy solutions based on the science behind four key causes of decline of marine resources in the WIO:

- 1) inadequate area protection
- 2) inadequate engagement of communities in management
- 3) poor management of SSFs
- 4) poor funding commitment to the above



1) marine area protection



2020

- The CBD's Aichi Biodiversity Target 11 mandated 10% of marine areas to be *conserved under strict protection* by 2020
- WIO MPA coverage ~ 7% in 2014 (Rocliffe..)
- If LMMAs are included PA coverage increases to ~11%
(updated figure ~19% (Mbugua in prep.)

2030

- The new (GBF) MPA target is 30% - will need much more effort
- Strictly protected zones are enshrined in *Code of Conduct for Responsible Fisheries* (FAO) and the *Ecosystem Approach to Fisheries*



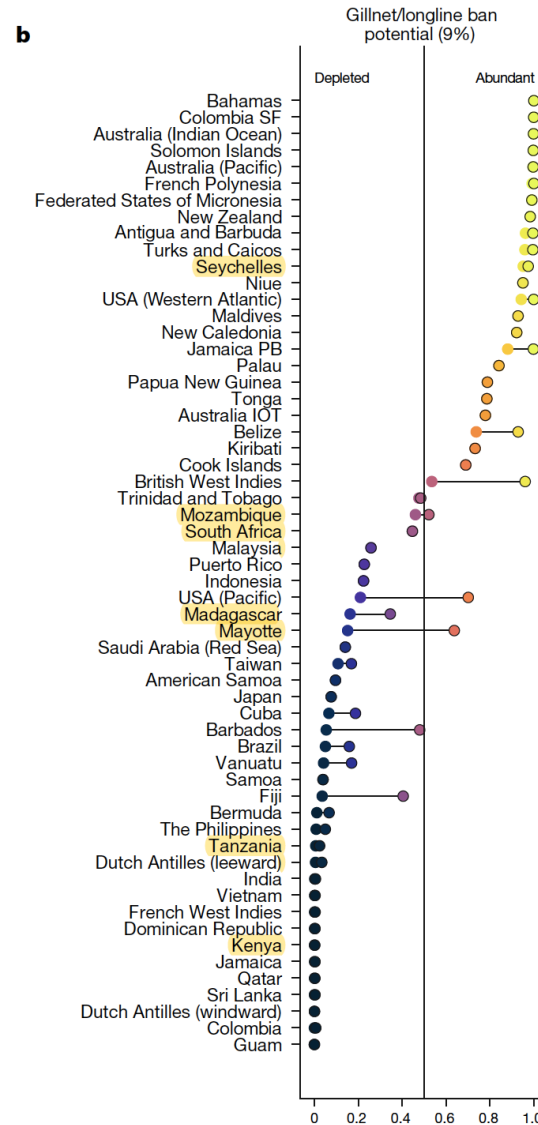
2) poor engagement of communities in management - LMMAs



- Several WIO nations have legislation that recognises LMMAs play a critical role in ocean governance and protection, thereby progressing targets of SDGs 14,2,12 and CBD; LMMAs also contribute to MSPs
- But the legislation for formalising LMMAs is often time consuming, expensive and difficult for coastal communities - streamlined legal frameworks that are easy to use are needed
- Many existing LMMAs are heavily reliant on external donors; sustainable financing instruments are needed for long term effective operations of LMMAs – MSP and Blue Economy provide opportunities



3) Management of small scale fisheries (SSFs)



- Highly depleted stocks and the disappearance of top predator fish species provide evidence of inadequate management of SSFs due to insufficient PAs for fish populations to breed & replenish and destructive gears

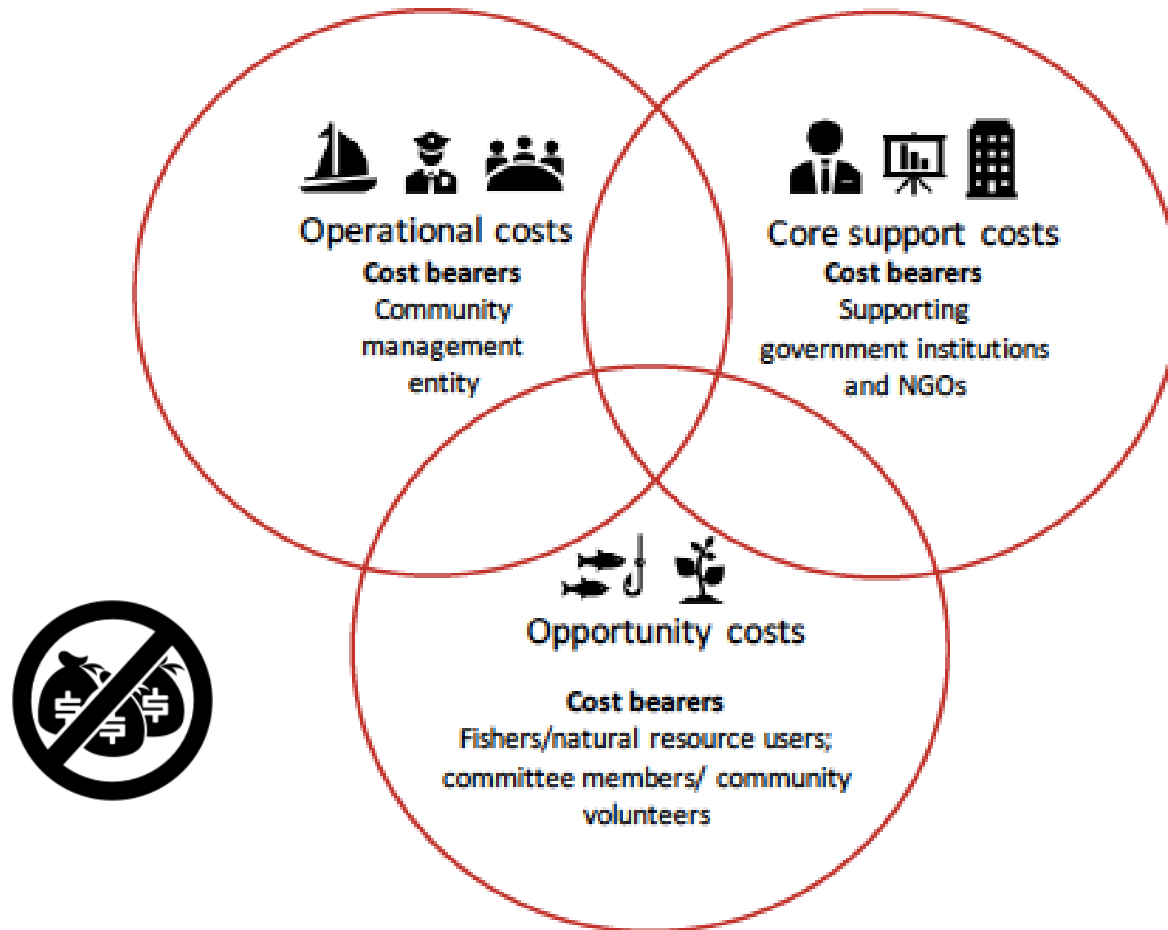
[Slade & Kalangahe 2015, Groenveld 2016, Samoilys et al 2017, MacNeil et al 2020, Osuka et al. 2021)

- Fishing gears that take threatened species (sharks, rays) or juveniles are rarely regulated.

E.g. only Mauritius and Seychelles have gillnet mesh size restrictions

- Reef sharks are “functionally extinct” in Kenya & Tanzania, highly depleted in Madagascar & Mayotte

4) Poor funding commitment to LMMAs and SSFs



- A functioning LMMA is associated with three types of costs, which are variously covered by different stakeholders (bearers). Cost bearers of 2 of these costs are largely communities, yet they have the least funds.

[Riddell et al. 2020]

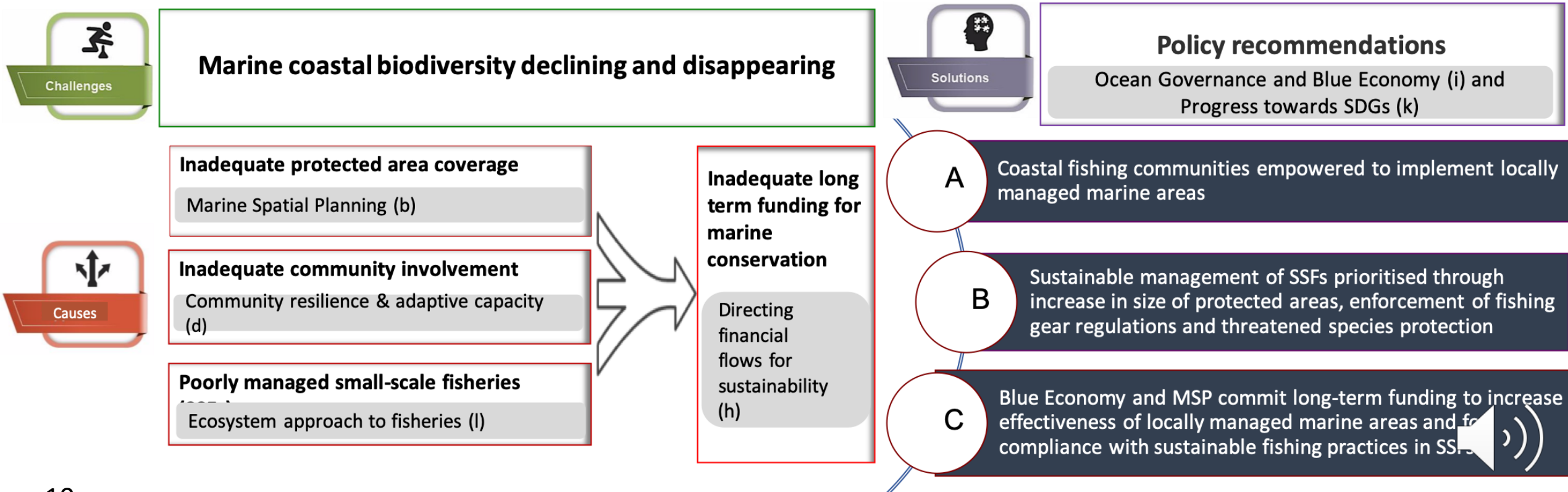
- Effective management of SSFs requires long term funding for monitoring control and surveillance
- The Blue Economy and MSP have potential to provide sustainable financing opportunities



Solutions within regional governance frameworks

- Marine conservation is now at the forefront of global policy arenas e.g. the UN ‘Decade of Ocean Science for Sustainable Development’ (2021), the CBD’s strategy and post-2020 Global Biodiversity Framework (GBF), and the SDGs (notably 14,1,2,12,13).
- The Nairobi Convention aligns its programme of work with these global strategies. The themes of the current programme of work (2018-2022, COP9) are indicated in this paper’s schematic below.

Science to policy discussion schematic: addressing challenges through strengthening LMMAs and SSFs



Recognising the importance of supporting and facilitating coastal communities in the implementation of LMMAs, and the importance of LMMAs in fisheries management and biodiversity conservation (A)



- **Policy Recommendation**
- *1. Recognize and expand the role of LMMAs in fisheries management*



- **Technical Recommendation**
- *i) Develop and adopt legal frameworks to streamline community engagement in the establishment of LMMAs*



Recognising the value in developing and maintaining productive Small Scale Fisheries (B)

• Policy Recommendation

2. Adopt the following actions to address challenges in fisheries development, management and enforcement to maintain and enhance contributions of SSFs to SDGs:

- *more closed areas*
- *gear restrictions*
- *threatened species protection*

• Technical Recommendation

ii) Support development of legislation to ban damaging fishing gears used in SSFs



Recognising the potential for the Blue Economy and MSP to commit long term funding to increase the effectiveness of LMMAs and to support sustainable practices in SSFs (C)



- **Policy Recommendation**

3. Develop and implement national and regional long term sustainable financing mechanisms to support LMMAs and SSFs



THANK YOU, ASANTENI, MERCI !

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