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National NCA Forum 2022

OUTLINE

- Policy Backdrop
- Primary Master Layer and Sub-accounting Areas
- Ecosystem Data used
- Experimentation
- Novel Ecosystem Types
- Work going forward



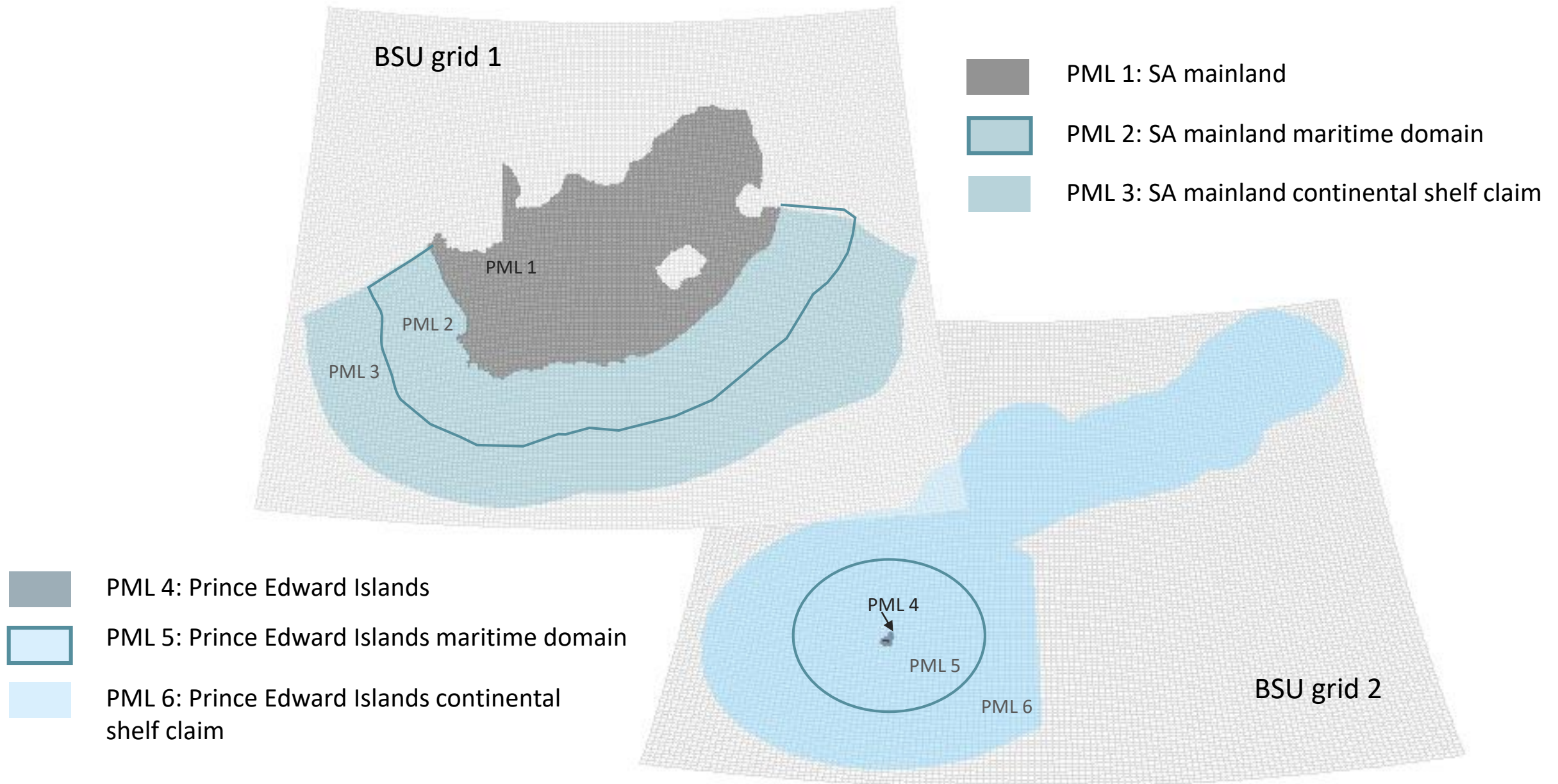
WHY DO ACCOUNTS?



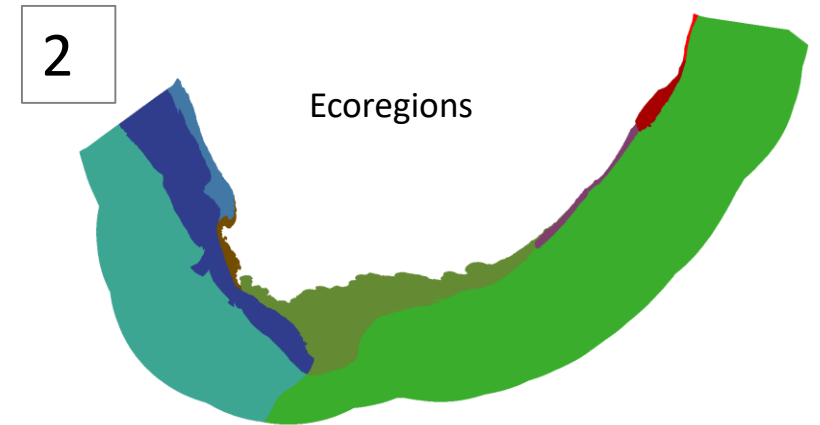
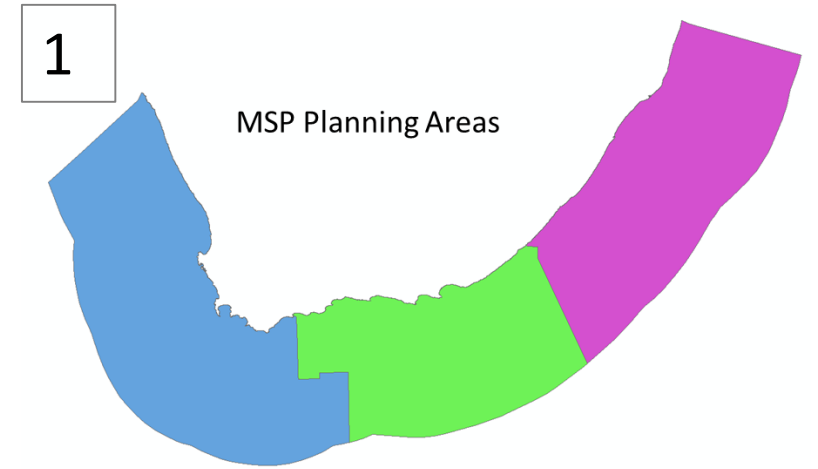
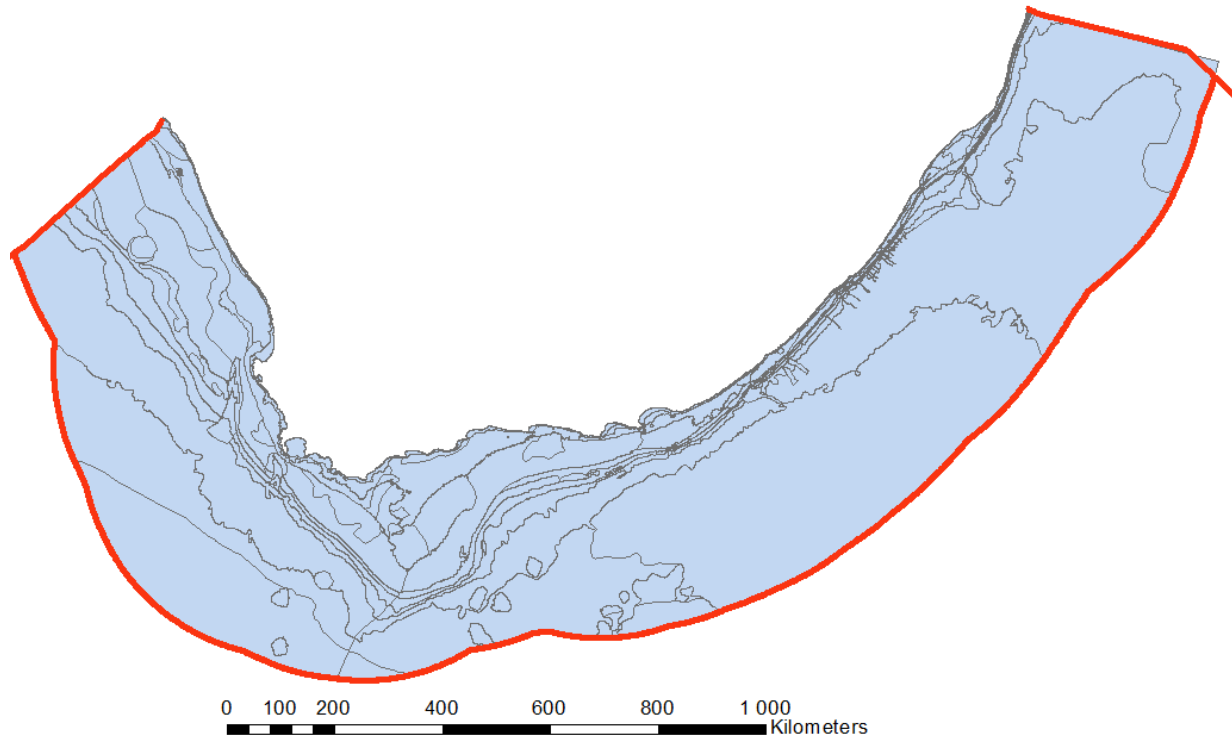
Growing the oceans economy to achieve economic growth and job creation as projected by the National Development Plan.



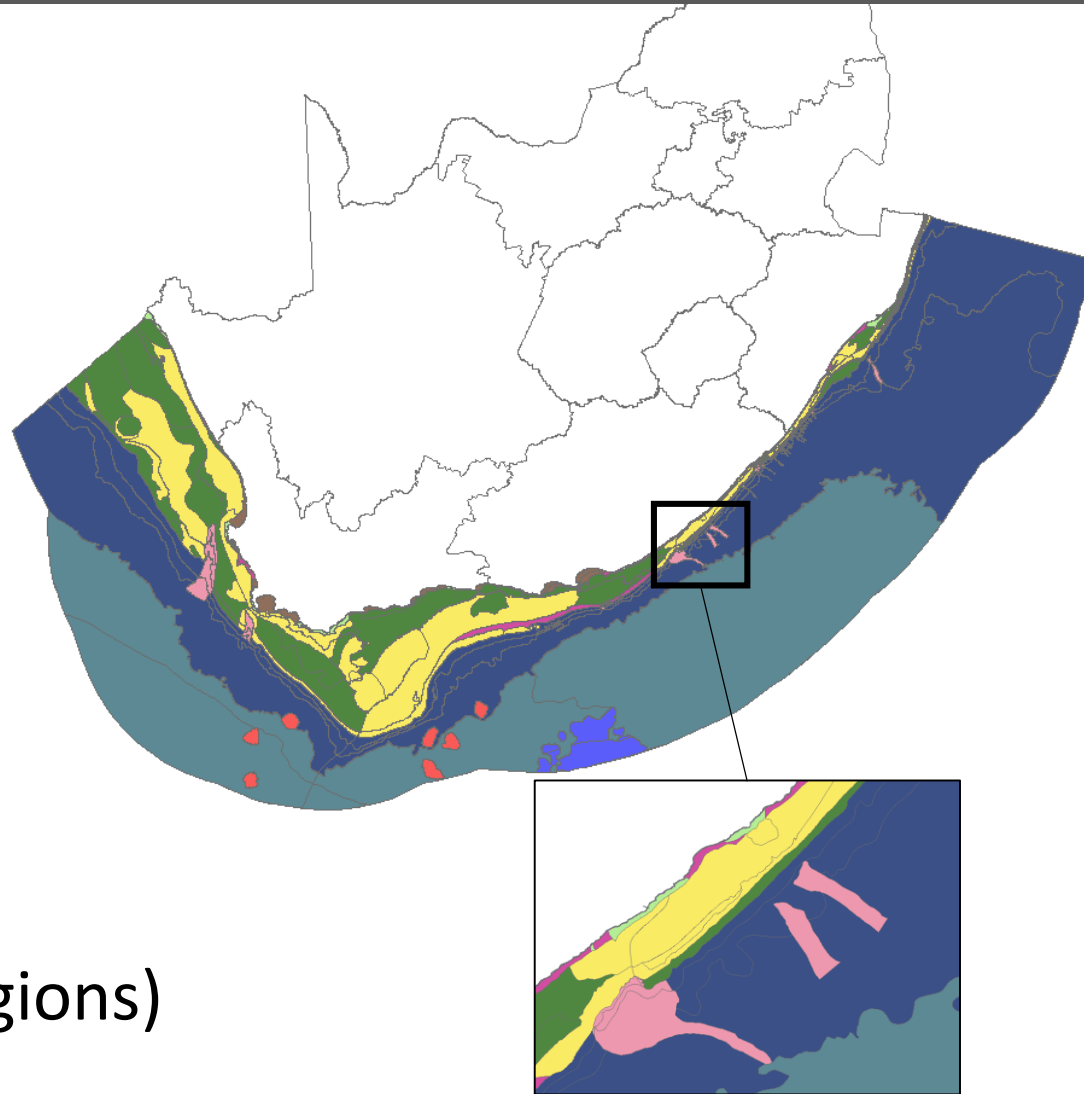
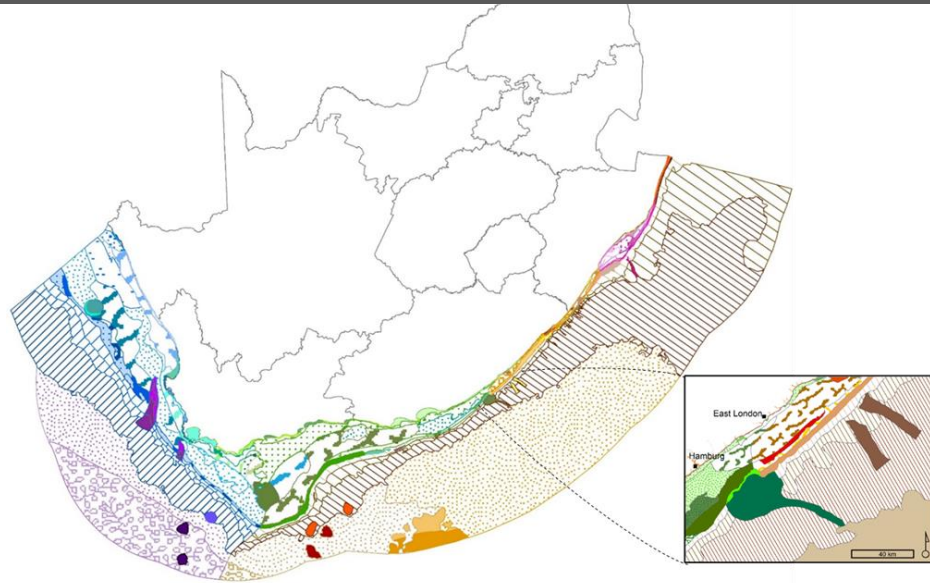
PRIMARY ECOSYSTEM ACCOUNTING AREAS



SUB-ACCOUNTING AREAS



UNITS OF ACCOUNTING



Broad Ecosystem Groups

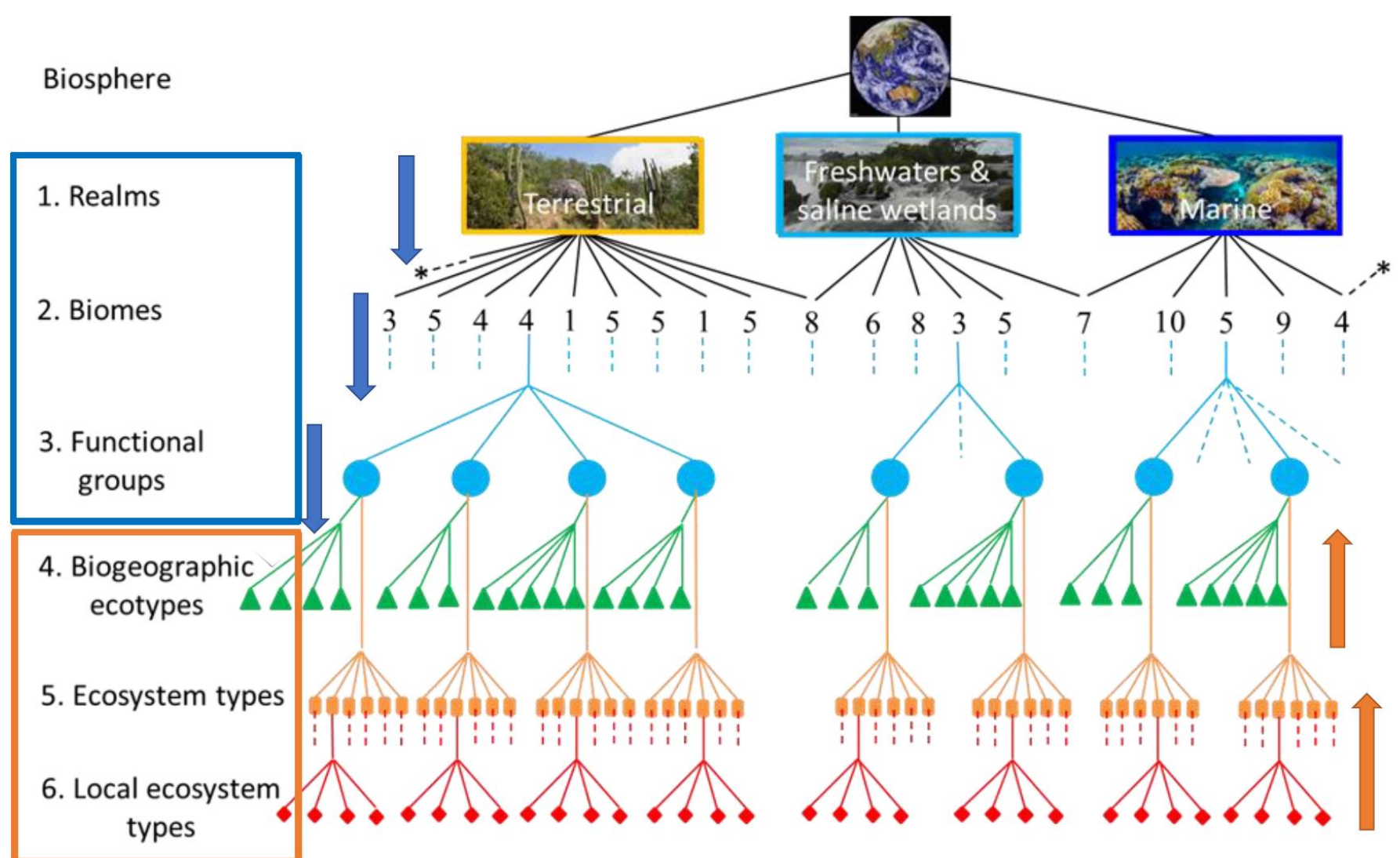
- Estuarine shore
- Abyss
- Bay
- Canyon
- Deep rocky shelf
- Deep soft shelf
- Island
- Kelp forest
- Plateau
- Rocky and mixed shore
- Sandy shore
- Seamount
- Shallow rocky shelf
- Shallow soft shelf
- Slope

6 Ecoregions (+ Estuarine Bioregions)

150 Marine Ecosystem Types

➤ collapsed into 14 Broad Ecosystem Groups (+ Estuarine Shore)

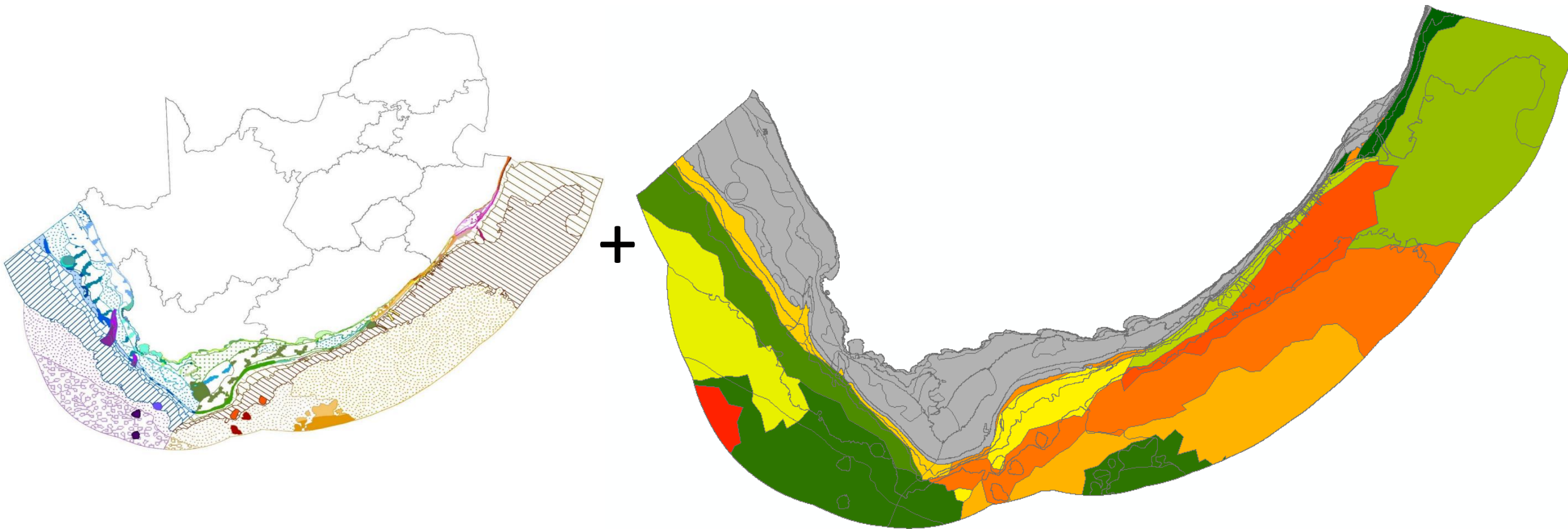
IUCN GLOBAL ECOSYSTEM TYPOLOGY



From Keith & Nicolson Ecosystem Accounting 2019 Ecosystem accounting workshop slideshow, IUCN

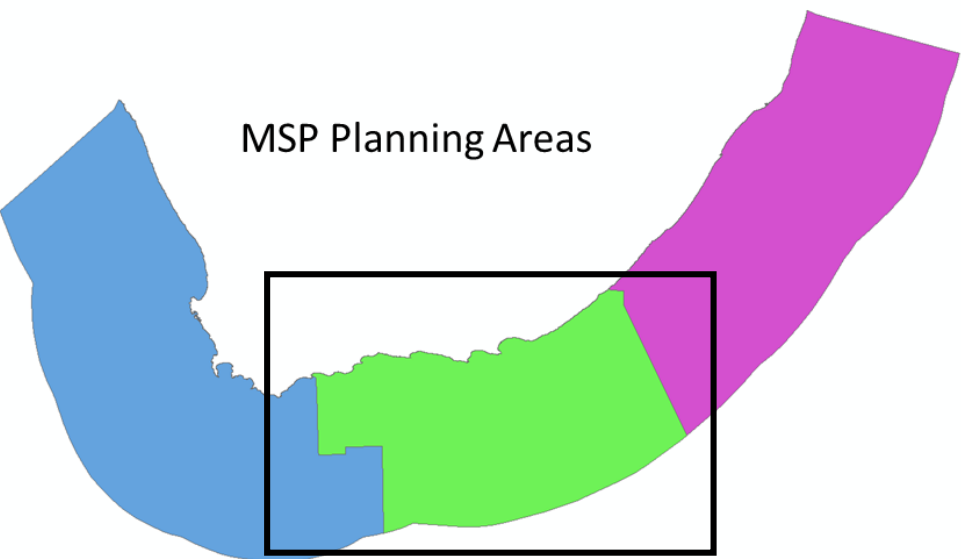
MARINE ECOSYSTEM MAP (BETA.1 2022)

150 Marine and Coastal (Benthic-pelagic) Ecosystem Types + 13 pelagic types



Roberson et al. 2017: Pelagic bioregionalisation using open-access data for better planning of marine protected area networks

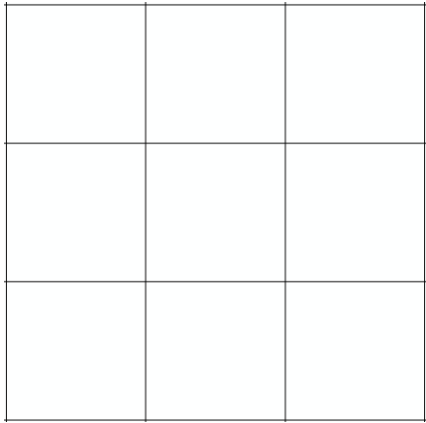
DRAFT OPENING ACCOUNT: SOUTHERN MSP PLANNING AREA



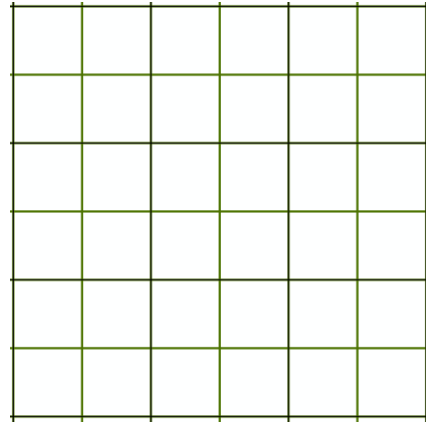
Broad Ecosystem Groups	Abyss	Bay	Canyon	Deep rocky shelf	Deep soft shelf	Estuarine shore	Island	Kelp forest	Plateau	Rocky and mixed shore	Sandy shore	Seamount	Shallow rocky shelf	Shallow soft shelf	Slope	Total
Baseline extent 2018	15 198 931	242 242	169 503	3 466 906	2 553 894	2 395	303	10	1 404 334	15 518	8 964	155 552	96 074	441 421	4 654 735	28 410 782
Additions to extent	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-
Reductions in extent	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-
Net change in extent	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net change as % of baseline	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Closing extent 2018	15198931	242242	169503	3466906	2553894	2395	303	10	1404334	15518	8964	155552	96074	441421	4654735	28410782

EXPERIMENTATION AND TESTING

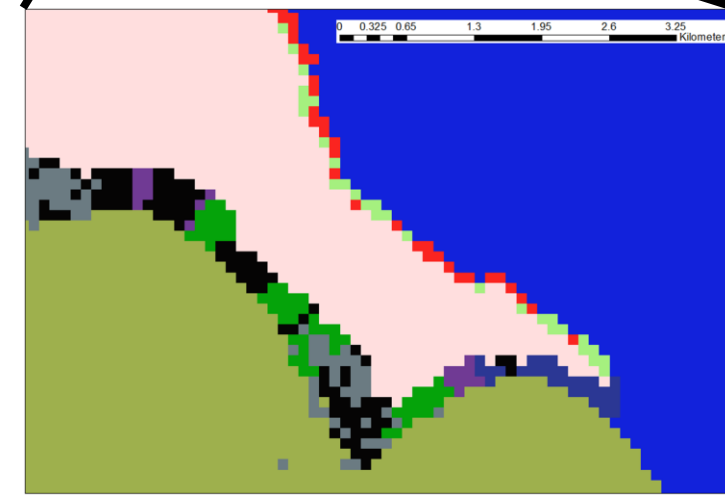
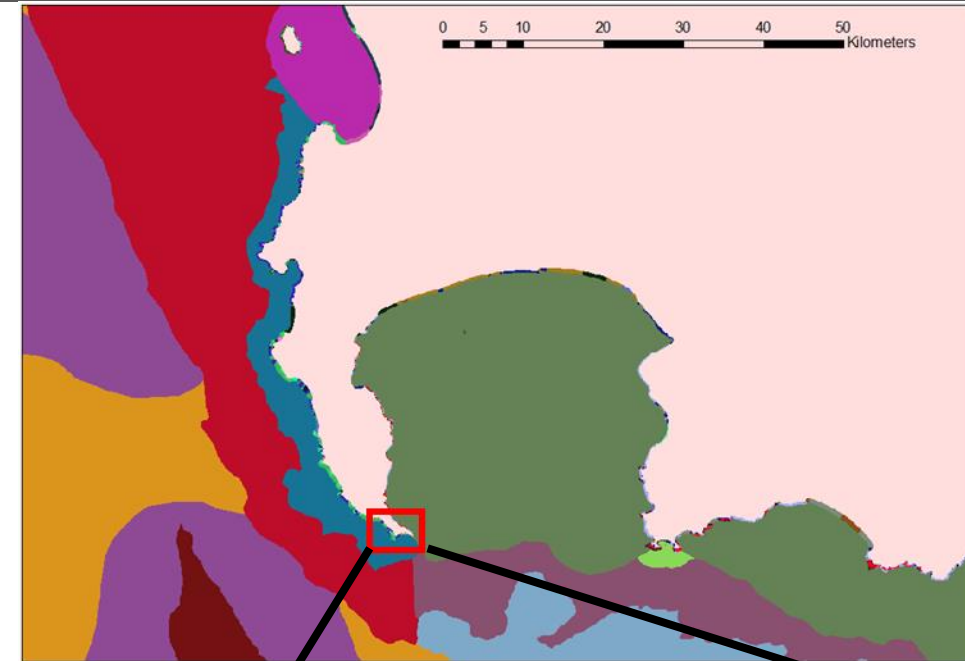
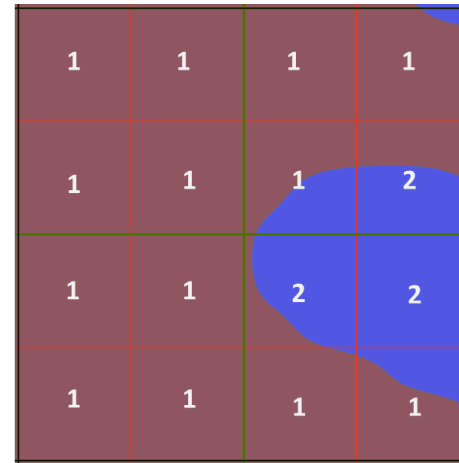
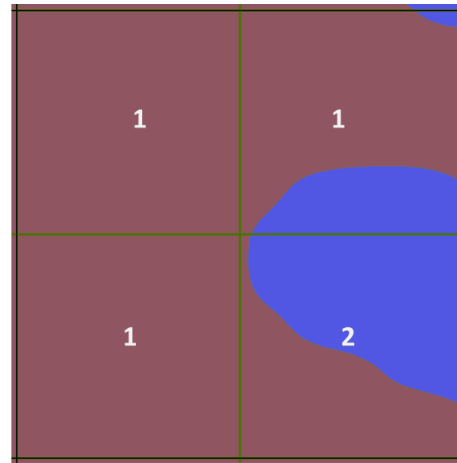
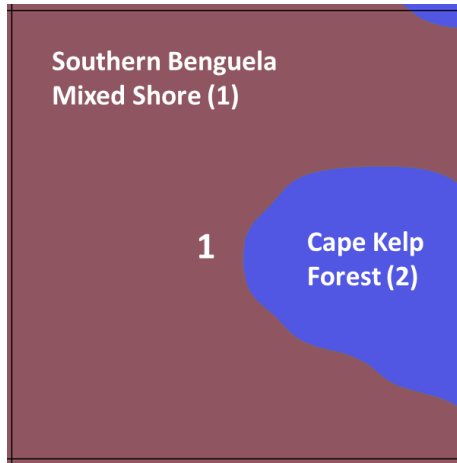
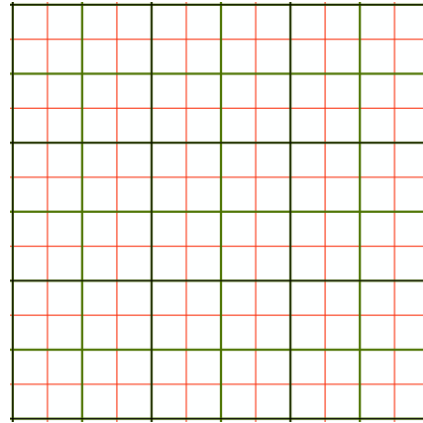
100 x 100m



50 x 50m

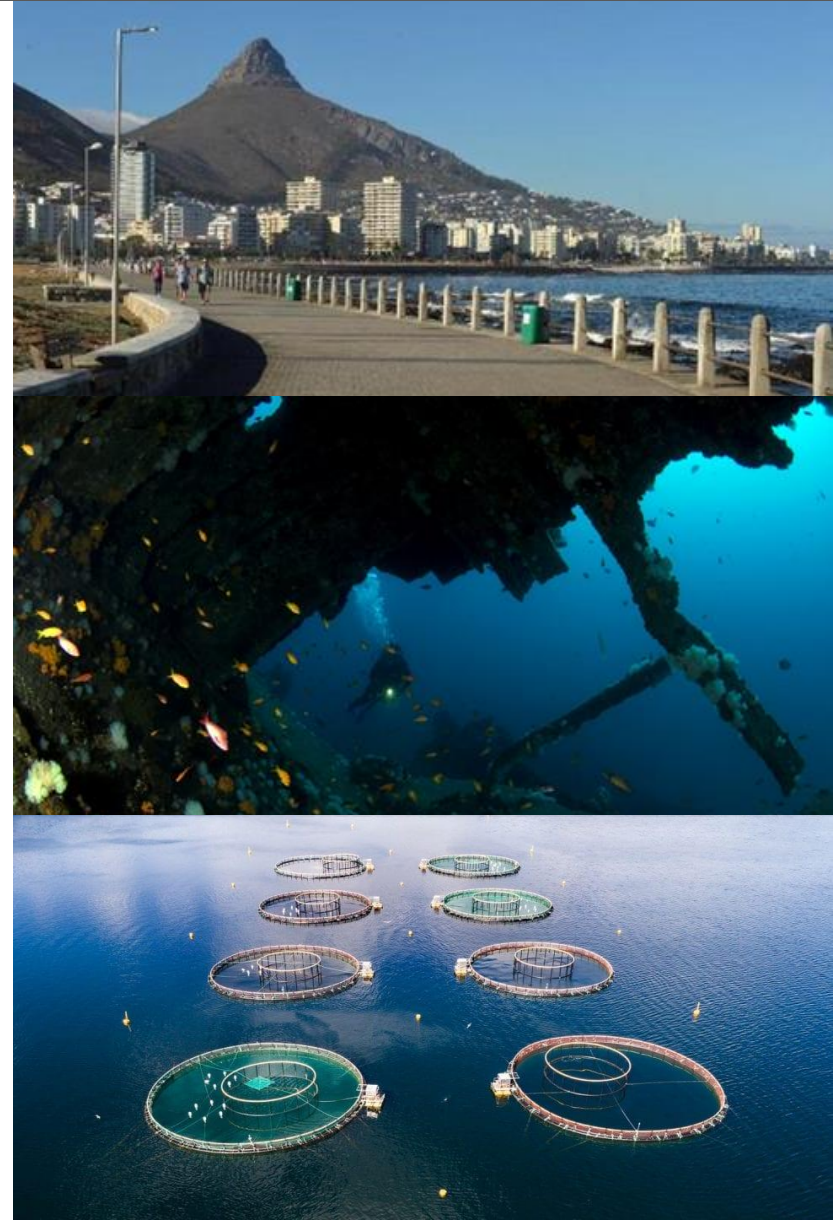


25 x 25m



NOVEL ECOSYSTEM TYPES

- **MT3.1 Artificial shorelines:** Constructed sea walls, breakwaters, piers, docks, tidal canals, ports, harbours, islands and other coastal infrastructure
- **M4.1 Submerged artificial structures:** Submerged structures, including rubble piles, shipwrecks, oil and gas infrastructure and artificial reefs
- **M4.2 Marine aquafarms:** High-productivity marine aquafarms are enclosed areas for the breeding, rearing, and harvesting of marine plants and animals, including finfish like salmon, molluscs, crustaceans, and algae.



WORK GOING FORWARD

- Discussion with data custodians for refinement of anthropogenic ecosystem types
- Inception of the Marine Technical Team
- Revision of input data and rasters





Thank you for listening

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More about NCA in South Africa - <http://nca.sanbi.org.za/>

More about SEEA <https://seea.un.org/content/about-seea>