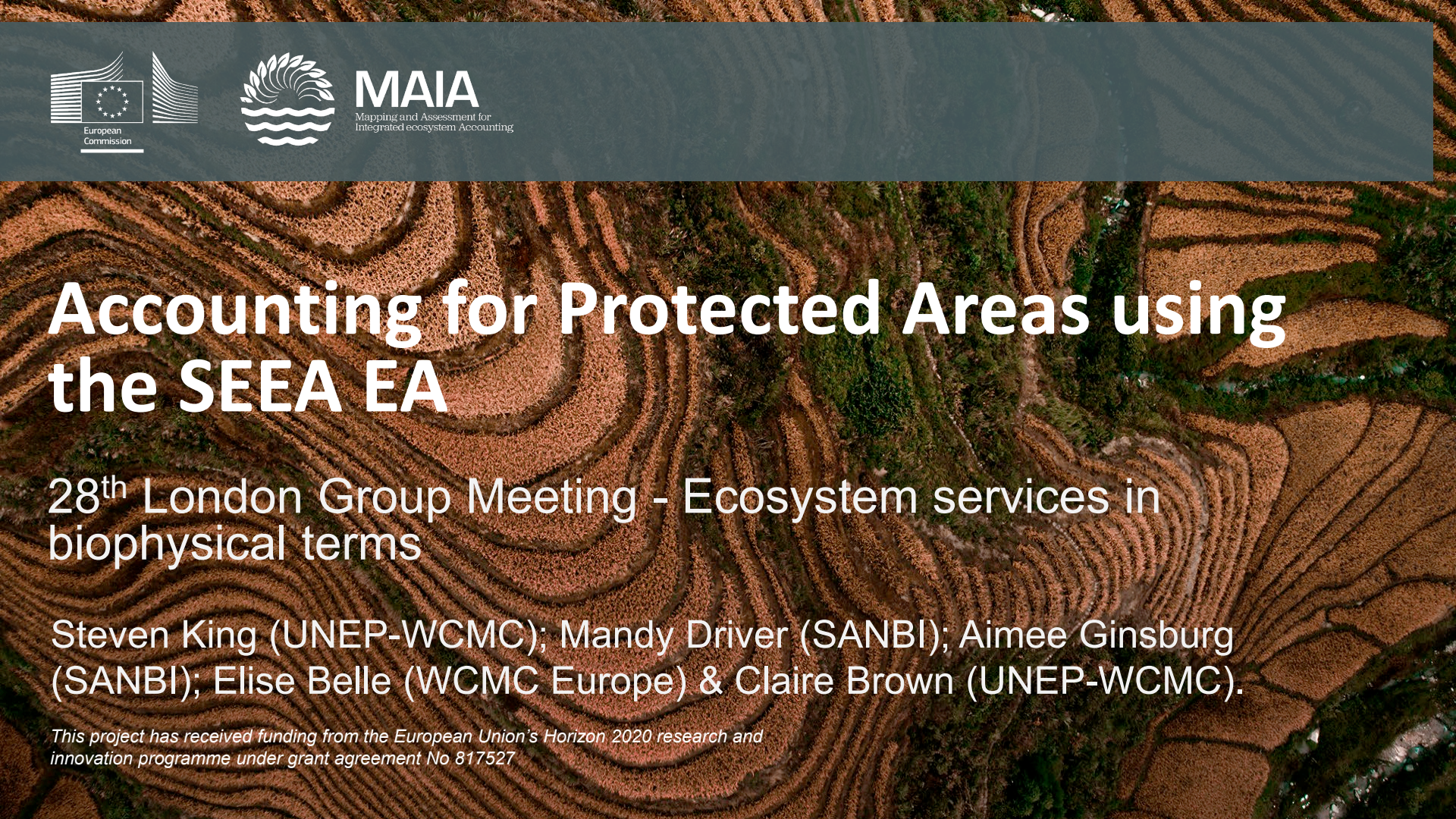


European Commission

MAIA
Mapping and Assessment for Integrated ecosystem Accounting

Accounting for Protected Areas using the SEEA EA

28th London Group Meeting - Ecosystem services in biophysical terms

Steven King (UNEP-WCMC); Mandy Driver (SANBI); Aimee Ginsburg (SANBI); Elise Belle (WCMC Europe) & Claire Brown (UNEP-WCMC).

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 817527

Protected Areas

- Key tools for conservation of our most ‘valuable’ nature
- Increasing focus on protection for ecosystem services and social benefits
- 15.8% of the land and 8.1% of the ocean protected (WDPA, August 2022)
- Draft post-2020 Global Biodiversity Framework: 30% of the earth’s surface protected by 2030

Planning for Protected Areas

- To best plan protected area networks ‘decision-ready’ information is needed on:
  - State and trends in Protected Areas (e.g., extent, ecological coverage, condition)
  - The benefits they provide
  - Synergies and trade-offs between protection and other land use options
- There is a potentially important role for the SEEA in delivering this information robustly and regularly.

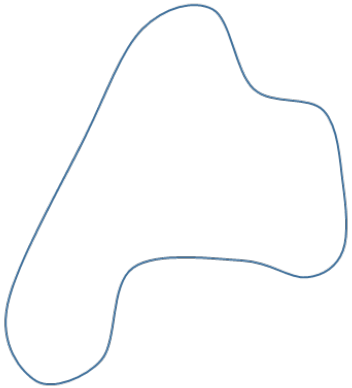
Thematic Accounting

- Recognises policy responses are framed using themes, rather than specific accounts
- Thematic accounting includes:
  - Additional entities outside of the core accounts
  - Specific geographical areas or ecosystem types
  - Building a set of relevant SEEA EA and other accounts for a theme

Thematic Accounting for Protected Areas

Increasing integration of different environmental, economic & social data

Protected Areas as 'Accounting Entities'



Protected Areas as 'Ecosystem Accounting Areas'

'Accounting for Protected Areas in Landscapes or Seascapes'

Advantages of ‘Accounting for Protected Areas’

- Statistical rigour and consistency
- Bringing data together and making it coherent
- Supporting integrated decision-making

Statistical rigour and consistency

	National Park	Nature Reserve	Protected Environment	Forest Nature Reserve	Forest Wilderness Area	Mountain Catchment Area	World Heritage Site*	Not protected	Total land area	Total protected (ha)	Total protected (%)
Opening Stock 1990	**3 604 693**	**3 089 386**	**12 022**	**121 996**	**277 433**	**559 421**	**-**	**114 301 502**	**121 966 453**	**7 664 951**	**6.3%**
Additions to stock	279 398	905 194	63 785	6 172	-	2	766	1	1 255 318		
Reductions in stock	-	- 3	-	- 1	-	-	-	-1 255 314	-1 255 318		
Net change in extent	279 398	905 191	63 785	6 171	-	2	766	-1 255 313	-	1 255 313	
Net change as % of opening	*7.8%*	*29.3%*	*530.6%*	*5.1%*	*0.0%*	*0.0%*		*-1.1%*	*0.0%*	*16.4%*	
Closing stock 2000	**3 884 091**	**3 994 577**	**75 807**	**128 167**	**277 433**	**559 423**	**766**	**113 046 189**	**121 966 453**	**8 920 264**	**7.3%**
Additions to stock	199 853	244 307	26 053	-	-	-	213 470	2	683 685		
Reductions in stock	- 2	- 3	-	-	-	- 1	-	-683 679	-683 685		
Net change in extent	199 851	244 304	26 053	-	-	- 1	213 470	-683 677	-	683 677	
Net change as % of opening	*5.1%*	*6.1%*	*34.4%*	*0.0%*	*0.0%*	*0.0%*	*27868.1 %*	*-0.6%*	*0.0%*	*7.7%*	
Closing stock 2010	**4 083 942**	**4 238 881**	**101 860**	**128 167**	**277 433**	**559 422**	**214 236**	**112 362 512**	**121 966 453**	**9 603 941**	**7.9%**
Additions to stock	134 965	784 033	701 158	17 624	1	6	38 959	-	1 676 746		
Reductions in stock	-	- 3	-	-	-	-	-	-1 676 743	-1 676 746		
Net change in extent	134 965	784 030	701 158	17 624	1	6	38 959	-1 676 743	-	1 676 743	
Net change as % of opening	*3.3%*	*18.5%*	*688.4%*	*13.8%*	*0.0%*	*0.0%*	*18.2%*	*-1.5%*	*0.0%*	*17.5%*	
Closing stock 2020	**4 218 907**	**5 022 911**	**803 018**	**145 791**	**277 434**	**559 428**	**253 195**	**110 685 769**	**121 966 453**	**11 280 684**	**9.2%**

Accounts for land-based PAs in South Africa for the period 1990 to 2020:
http://www.statssa.gov.za/publications/D04012/D040122020.pdf

Statistical rigour and consistency

	National Park	Nature Reserve	Protected Environment	Forest Nature Reserve	Forest Wilderness Area	Mountain Catchment Area	World Heritage Site*	Not protected	Total land area	Total protected (ha)	Total protected (%)
Opening Stock 1990	**3 604 693**	**3 089 38**									**6.3%**
Additions to stock	279 398	905 1									
Reductions in stock	-	- 3									
Net change in extent	279 398	905									
Net change as % of opening	*7.8%*	*29.*									
Closing stock 2000	**3 884 091**	**3 9**									**%**
Additions to stock	199 853	244									
Reductions in stock	- 2	- 3									
Net change in extent	199 851	244									
Net change as % of opening	*5.1%*	*6.1*									
Closing stock 2010	**4 083 942**	**4 2**									**%**
Additions to stock	134 965	784									
Reductions in stock	-	- 3									
Net change in extent	134 965	784									
Net change as % of opening	*3.3%*	*18.5%*									
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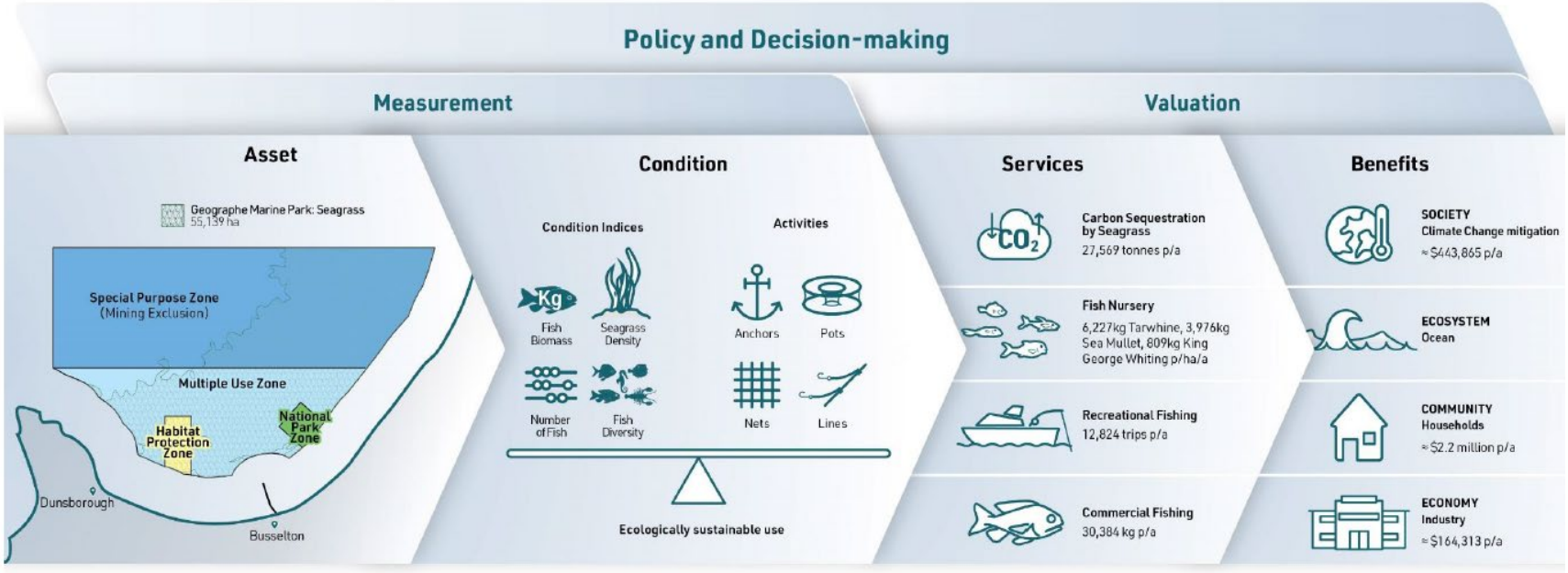
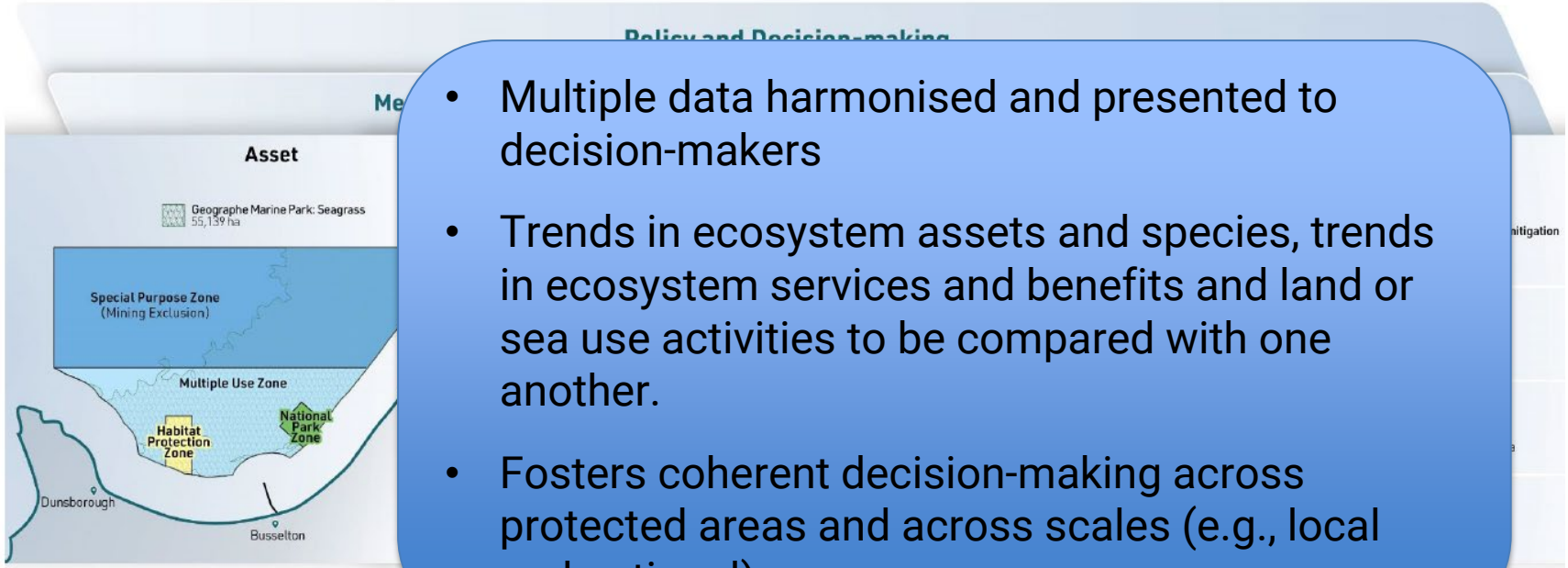
- The accounting framework brings statistical rigour and makes data consistent over time – discrepancies must be confronted and resolved
- Allowing information to be compared with confidence across many years and locations.
- Brings statistics on Protected Areas into the central information system of national government.

Bringing data together and making it coherent



Different information on the Geographe Marine Park Protected Area in Australia organised by the SEEA EA: https://www.ideeagroup.com/geographe-marine-park/

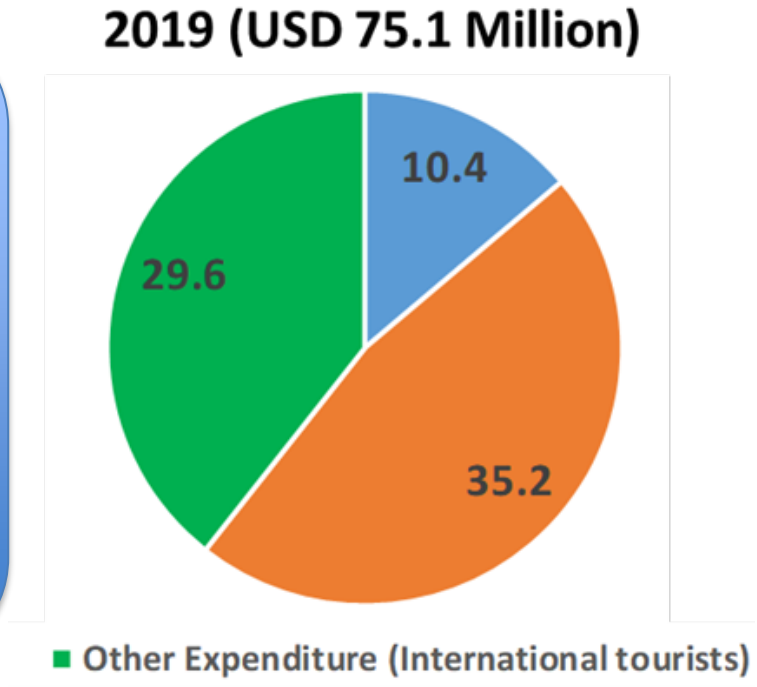
Bringing data together and making it coherent



- Multiple data harmonised and presented to decision-makers
- Trends in ecosystem assets and species, trends in ecosystem services and benefits and land or sea use activities to be compared with one another.
- Fosters coherent decision-making across protected areas and across scales (e.g., local and national).

Supporting integrated decision-making

- Trade-offs from environmental management decisions can be made explicit.
- Synergies across environmental and other development objectives can be captured (e.g., conservation and tourism).
- Mainstreaming PAs into formal economic and national development planning



Tourism expenditure in Uganda National Parks: https://resources.unep-wcmc.org/products/WCMC_RT159

Supporting integrated decision-making

- Who wins?
- Who loses?
- Many benefits – often non-market
- Often substantial national and local opportunity costs
- Expansion must be inclusive to be sustainable

Analytical extensions and applications

- Informing revenue sharing with local communities
- Making the links to jobs supports by Protected Areas
- Making the links to expenditure on Protected Areas
- Informing Integrated Landscape Management – particularly important for 30% by 2030

London Group Questions

- Are there any other ‘thematic accounting for protected area’ approaches that can be envisaged?
- Can you think of any other advantages that we need to highlight?
- Are there any other analytical extensions or applications that come to mind?

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http://maiaportal.eu/

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