Accounts for Protected Areas, 1900 to 2020: quick overview

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National NCA Forum 2022

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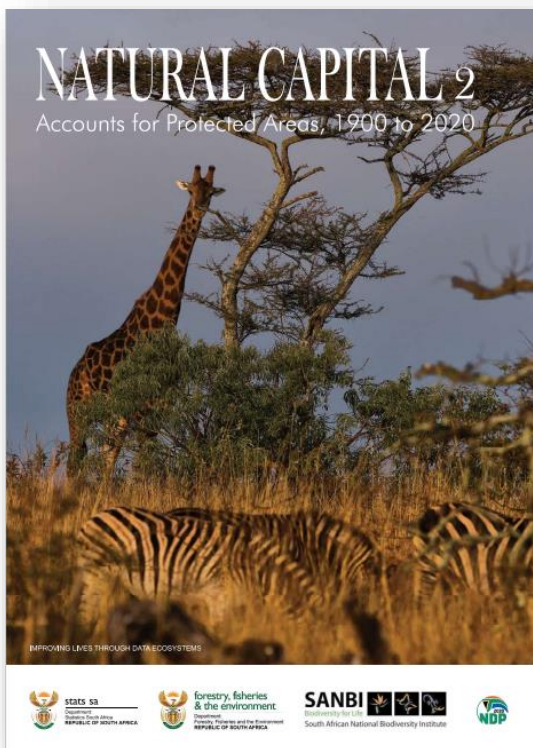
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This discussion document forms part of Stats SAs *Natural Capital* series, the 2nd publication in the series	The APA accounts are the first of their kind for South Africa	Produced as part of the Natural Capital Accounting and Valuation of Ecosystem Services (NCAVES) project

NATURAL CAPITAL 2

Accounts for Protected Areas, 1900 to 2020

IMPROVING LIVES THROUGH DATA ECOSYSTEMS

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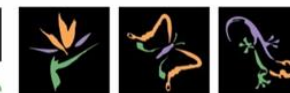Department:
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Outline of presentation

- What are accounts for protected areas?

- What is the scope of the accounts?

- Protected area data used

- Key findings at national, provincial and biome levels

- Concluding comments, including directions for future work

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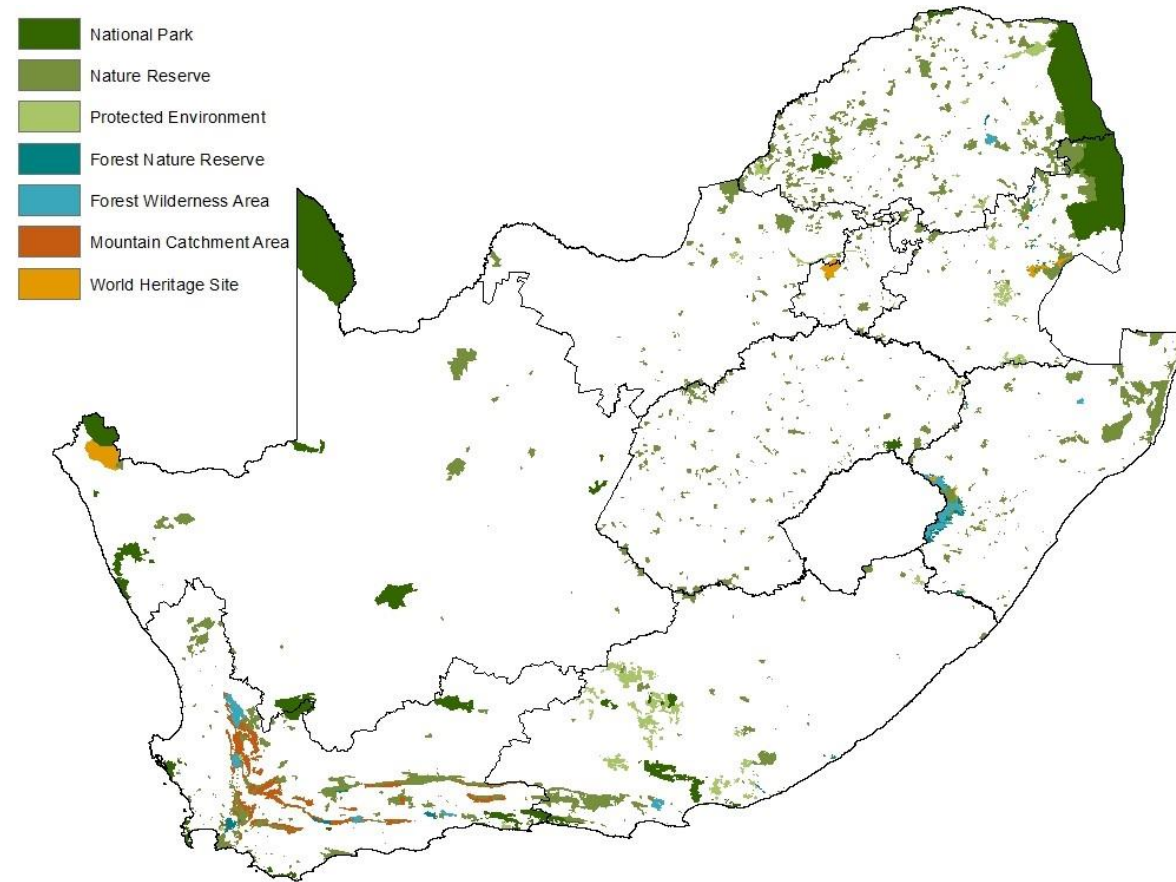
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What are accounts for protected areas?

- Organise **biophysical data** on a theme of specific policy relevance.

- The accounts use **information on the extent of protected areas** and link this to information on terrestrial ecosystems.

- By presenting information in a **consistent, standardised accounting format**, accounts can yield a range of indicators that can be applied in decision-making.

What is the scope of the accounts?

- Land-based protected areas on **South Africa's mainland**

- Deal with the **terrestrial realm**

- Track expansion of the protected area estate over the period **1900 to 2020**

- Compiled at the **national level, for provinces and for biomes**, and are **disaggregated by types** of protected areas as per NEMPAA

- Scope does <u>not</u> include assessing the protection of ecosystem types relative to the ecosystem-specific targets for protection that are set in the National Protected Area Expansion Strategy(NPAES).
  - Such an assessment is done in the National Biodiversity Assessment (NBA) and yields the headline indicator Ecosystem Protection Level, which is reported together with Ecosystem Threat Status.

Protected area data used

- The accounts use the *South African Protected Area Database (SAPAD)* as the spatial data inventory of protected areas in South Africa.

- **The strength of the dataset includes:**
  - protected area names, types and declaration dates in a manner that provides a time series for accounts nationally.

- **Limitations of the dataset**:
  - Uncertainty about declaration dates for some protected areas, especially in earlier decades.
  - Does not include dates of establishment in cases where these differ from the declaration date (e.g. under more recent legislation)
  - Does not include withdrawals of declaration

Legend:
- National Park
- Nature Reserve
- Protected Environment
- Forest Nature Reserve
- Forest Wilderness Area
- Mountain Catchment Area
- World Heritage Site

SAPAD: developed and maintained by Department of Environment, Forestry & Fisheries. Freely available for download from DFFE's EGIS (https://egis.environment.gov.za/)

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Key findings

Composition of the protected area estate

Size of the protected area estate

Proportion of the country that is protected

Change in the size of the protected area estate

	National Park	Nature Reserve	Protected Environment	Forest Nature Reserve	Forest Wilderness Area	Mountain Catchment Area	World Heritage Site*	Not protected	Total	Total protected (ha)	Total protected (%)
Opening 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	-	284 947	194 042	15 298	-	3	-	-	494 290		
Reductions in stock	-	-3	-	-	-	-	-	-494 287	-494 290		
Net change in extent	-	284 944	194 042	15 298	-	3	-	-494 287	-	494 287	
Net change as % of opening	*0,0%*	*6,7%*	*190,5%*	*11,9%*	*0,0%*	*0,0%*	*0,0%*	*-0,4%*	*0,0%*	*5,1%*	
Closing stock 2015	**4 083 942**	**4 523 825**	**295 902**	**143 465**	**277 433**	**559 425**	**214 236**	**111 868 225**	**121 966 453**	**10 098 228**	**8,3%**
Opening stock 2015	**4 083 942**	**4 523 825**	**295 902**	**143 465**	**277 433**	**559 425**	**214 236**	**111 868 225**	**121 966 453**	**10 098 228**	**8,3%**
Additions to stock	134 965	499 086	507 116	2 326	1	3	38 959				
Reductions in stock	-	-	-	-	-	-	-	-1 18			
Net change in extent	134 965	499 086	507 116	2 326	1	3	38 959	-1 1			
Net change as % of opening	*3,3%*				*0,0%*	*0,0%*	*18,2%*		*0,0%*	*11,7%*	
Closing stock 2020	**4 218 907**				**277 434**	**559 428**	**253 195**	**110 6.. 769**	**121 966 453**	**11 280 684**	**9,2%**

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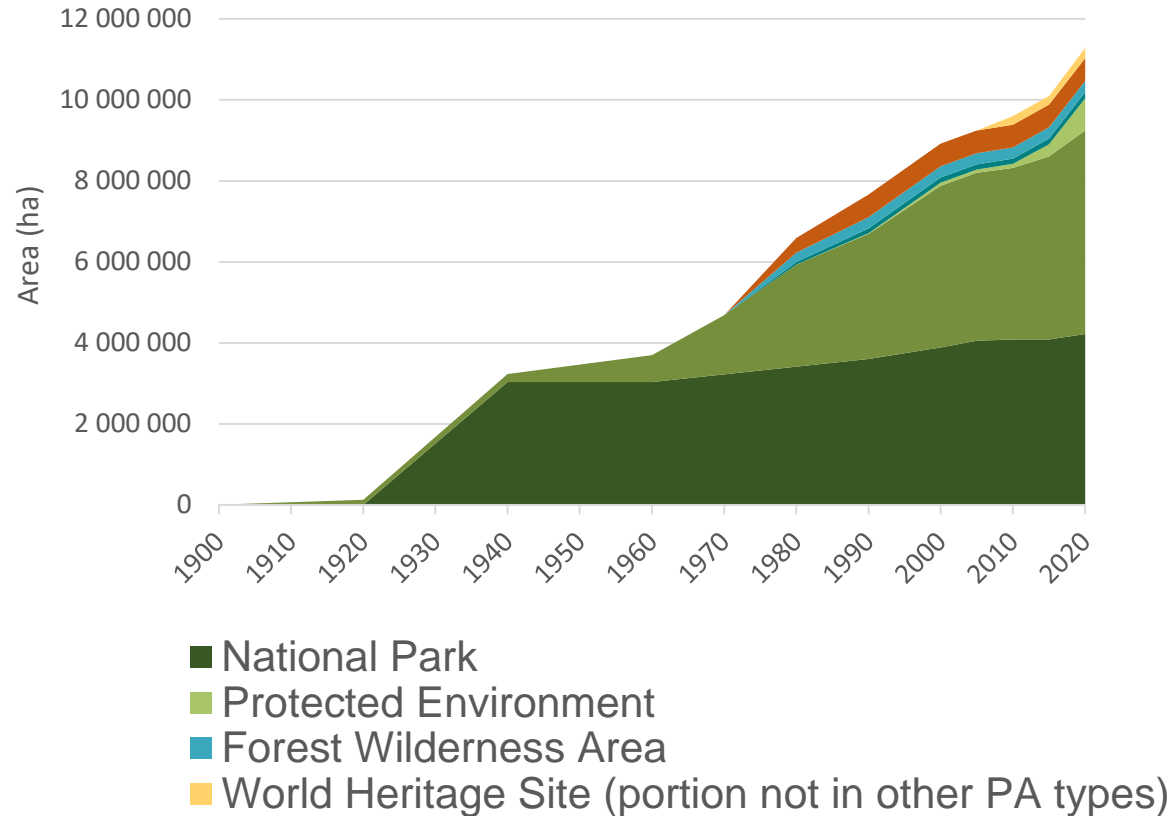Forestry, Fisheries and the Environment
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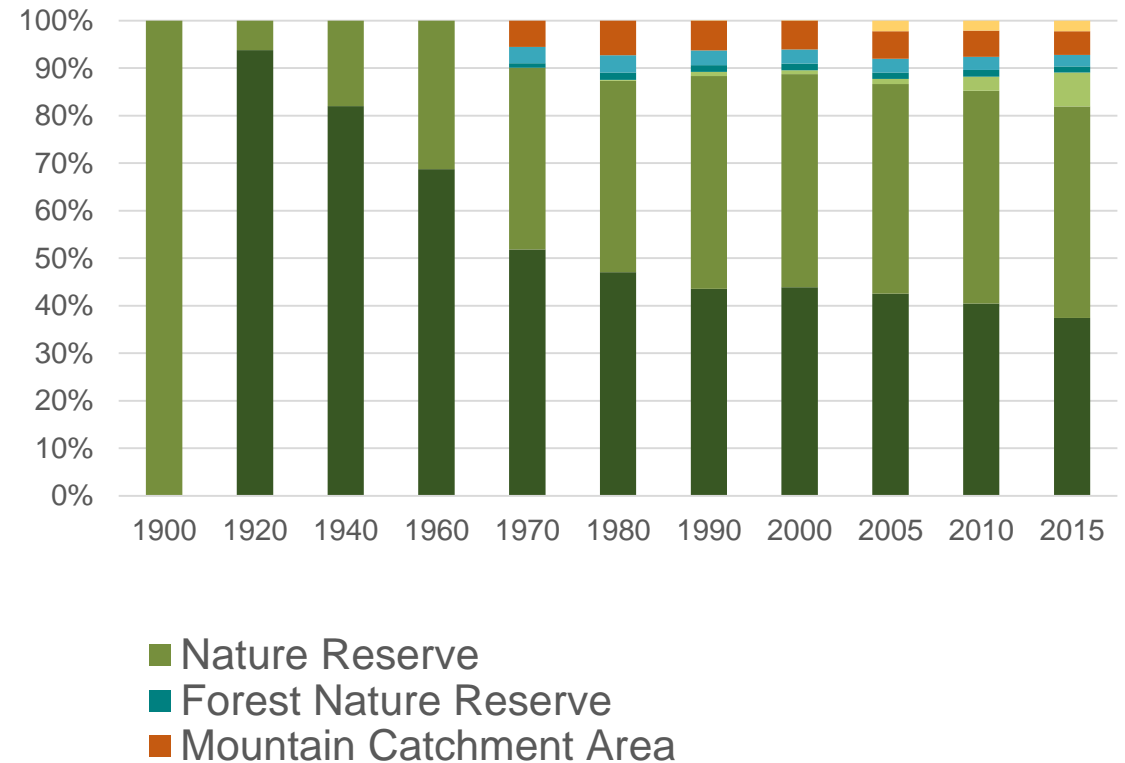South African National Biodiversity Institute

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Graphic representation of results

Cumulative extent of the land-based protected area estate by type of protected area, from 1900 to 2020, in hectares.

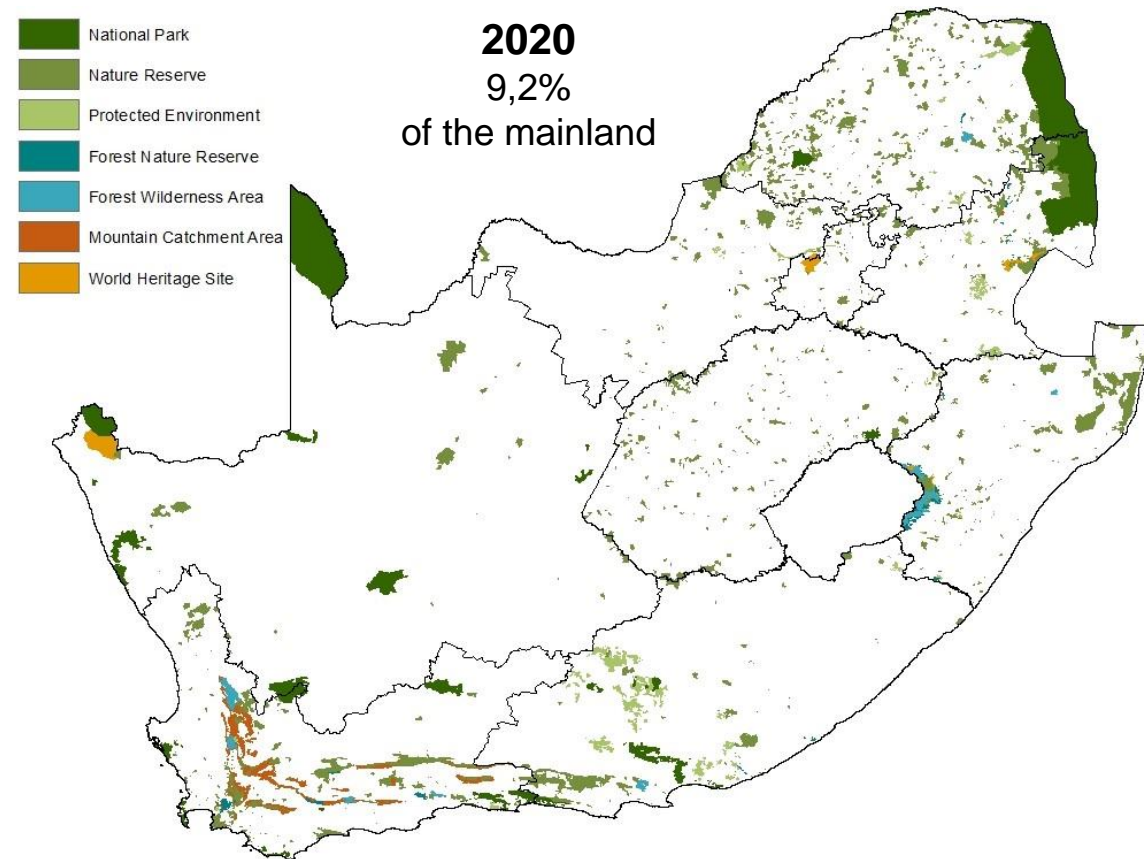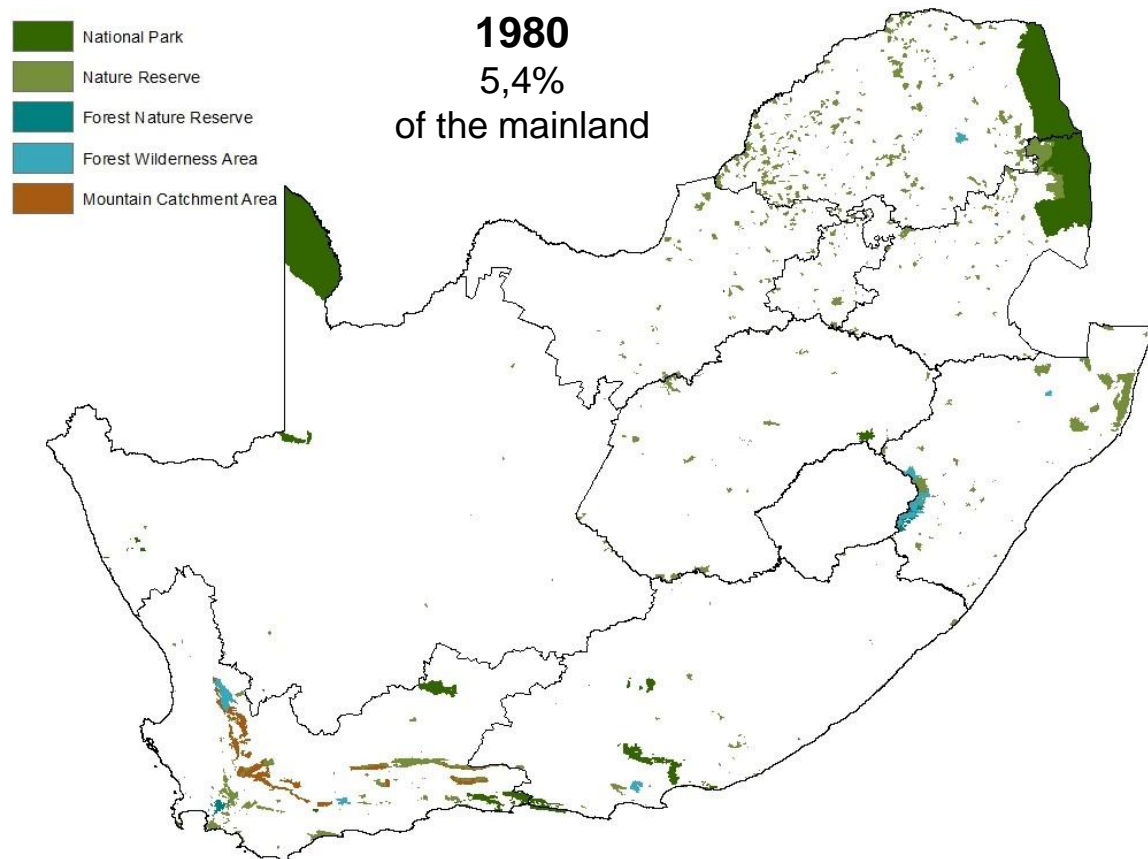**Composition of the land-based protected area estate by type of protected area, 1900–2020.**

Legend:
- National Park
- Protected Environment
- Forest Wilderness Area
- World Heritage Site (portion not in other PA types)
- Nature Reserve
- Forest Nature Reserve
- Mountain Catchment Area

*based on declaration dates in the South African Protected Areas Database

Accounts for protected areas are spatial

Land-based protected areas in 1980 and 2020
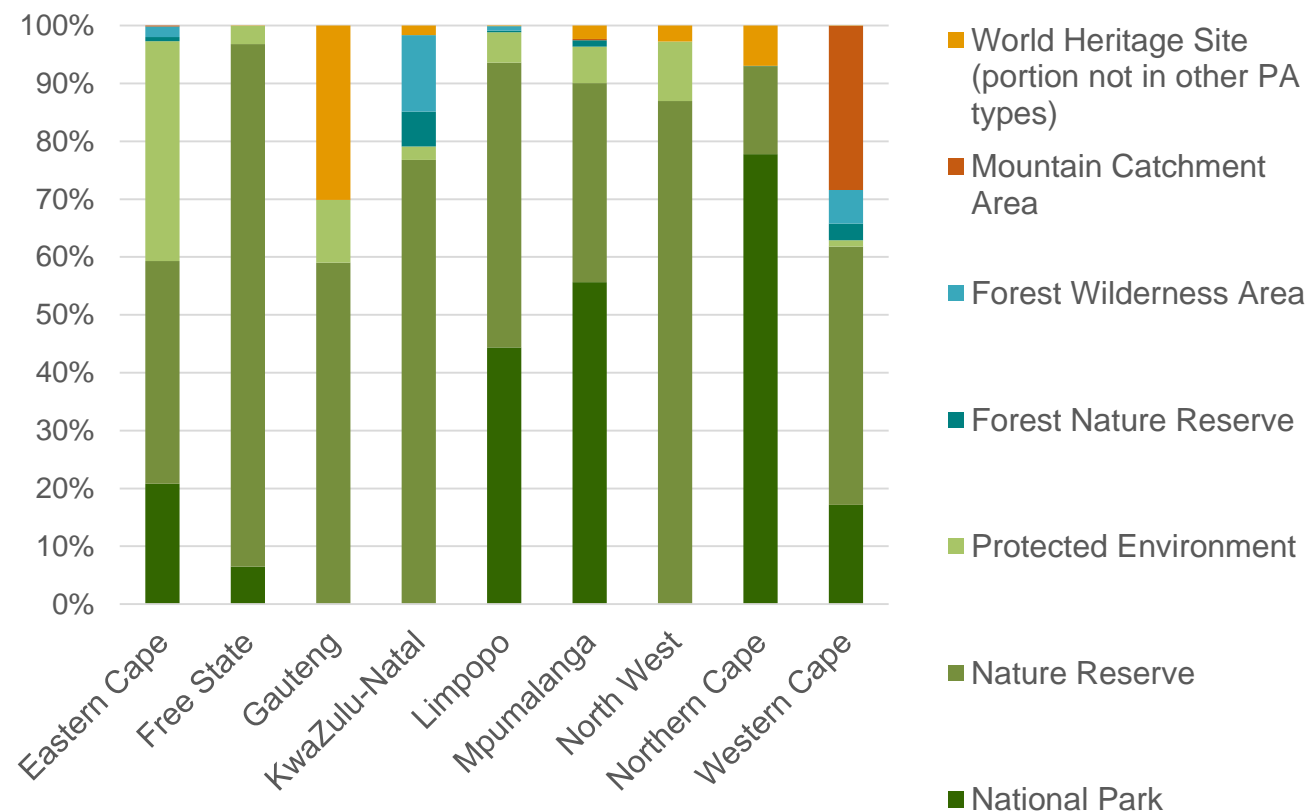Based on declaration dates in South African Protected Areas Database

1980
5,4%
of the mainland

Legend:
- National Park
- Nature Reserve
- Forest Nature Reserve
- Forest Wilderness Area
- Mountain Catchment Area

2020
9,2%
of the mainland

Legend:
- National Park
- Nature Reserve
- Protected Environment
- Forest Nature Reserve
- Forest Wilderness Area
- Mountain Catchment Area
- World Heritage Site

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Key findings: provincial level

Cumulative extent of the protected area estate by province, from 1900 to 2020, in hectares

Legend:
- Eastern Cape
- Free State
- Gauteng
- KwaZulu-Natal
- Limpopo
- Mpumalanga
- North West
- Northern Cape
- Western Cape
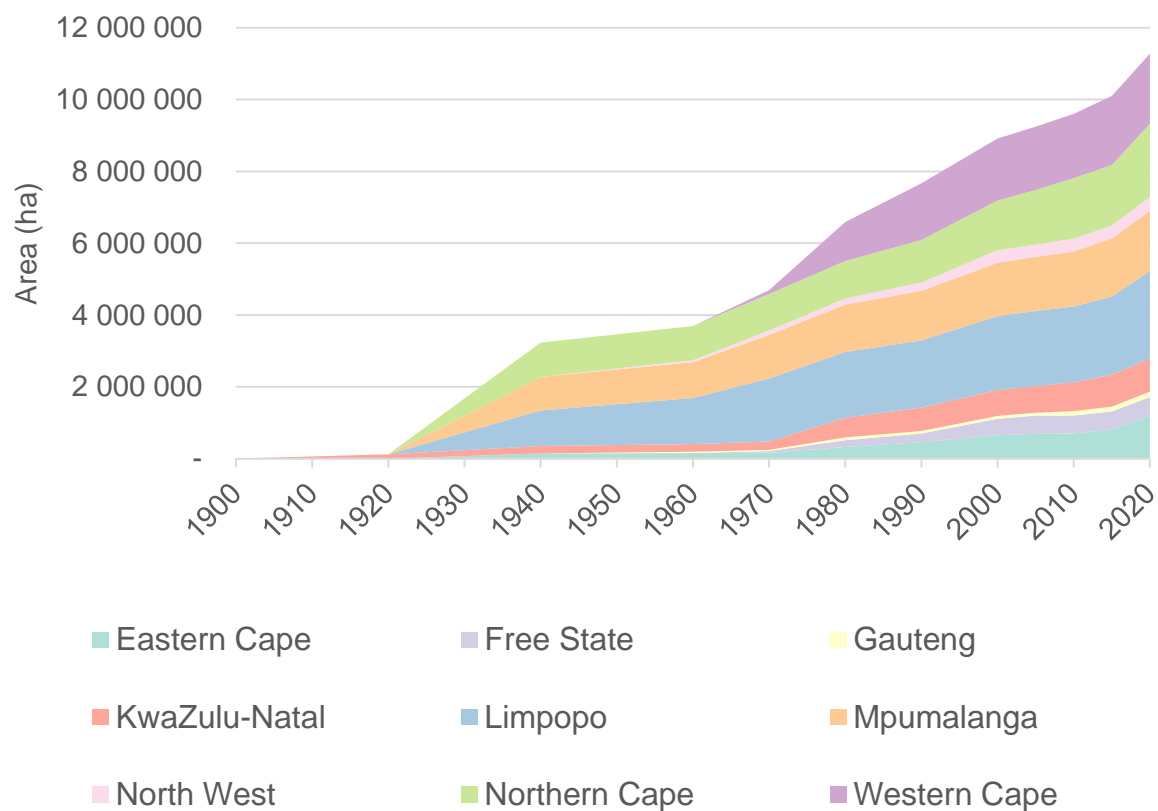
Composition of the protected area estate by protected area type, for each province in 2020

Legend:
- World Heritage Site (portion not in other PA types)
- Mountain Catchment Area
- Forest Wilderness Area
- Forest Nature Reserve
- Protected Environment
- Nature Reserve
- National Park

Key findings: provincial level

Cumulative extent of the land-based protected area estate in each province **as a percentage of the total provincial area**, from 1900 to 2020
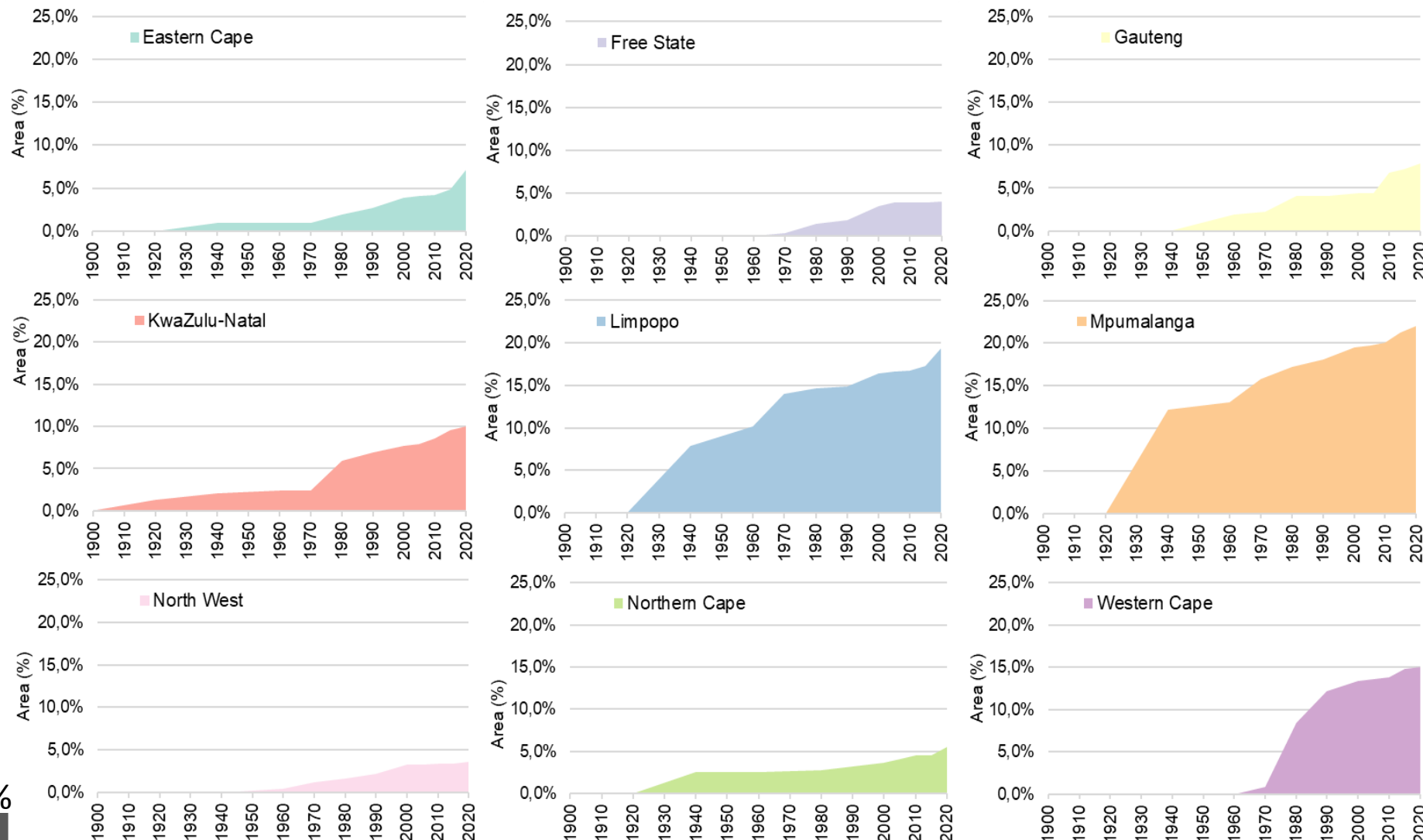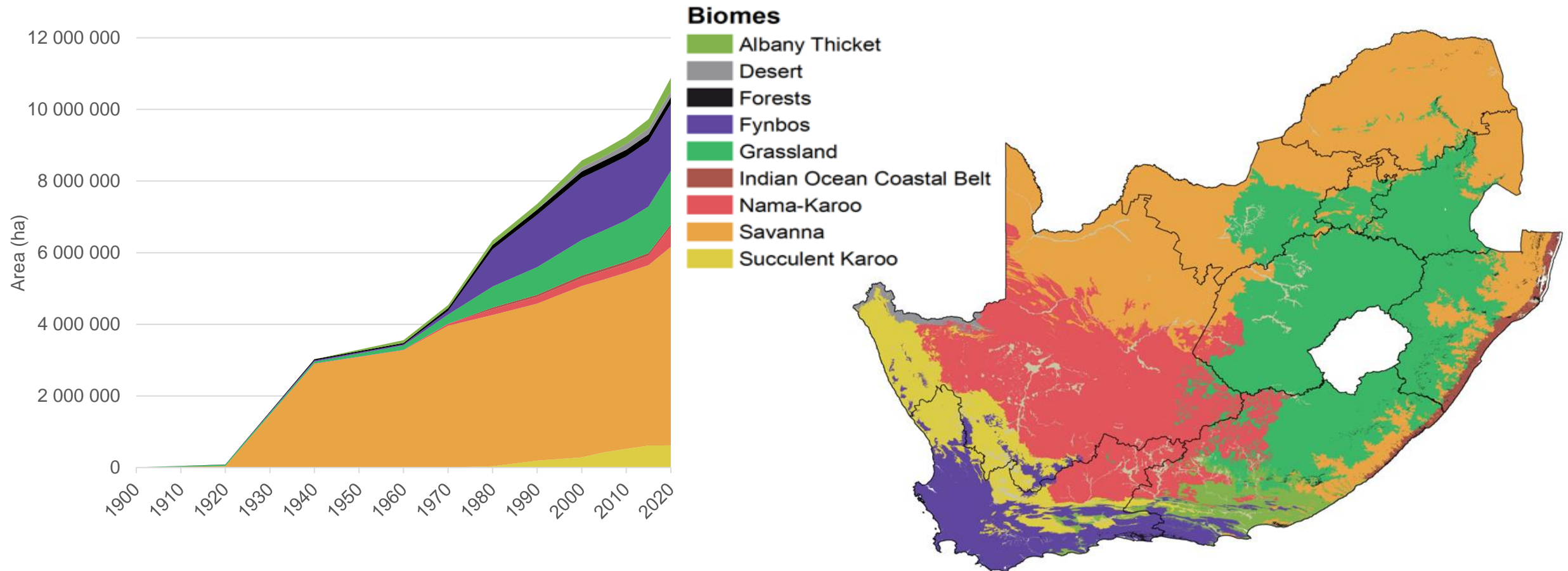
All shown on a scale of 0% to 25%

Key findings: biome level

Cumulative extent of the protected area estate by biome, from 1900 to 2020

**Terrestrial ecosystem types are aggregated into nine biomes**

Biomes
- Albany Thicket
- Desert
- Forests
- Fynbos
- Grassland
- Indian Ocean Coastal Belt
- Nama-Karoo
- Savanna
- Succulent Karoo

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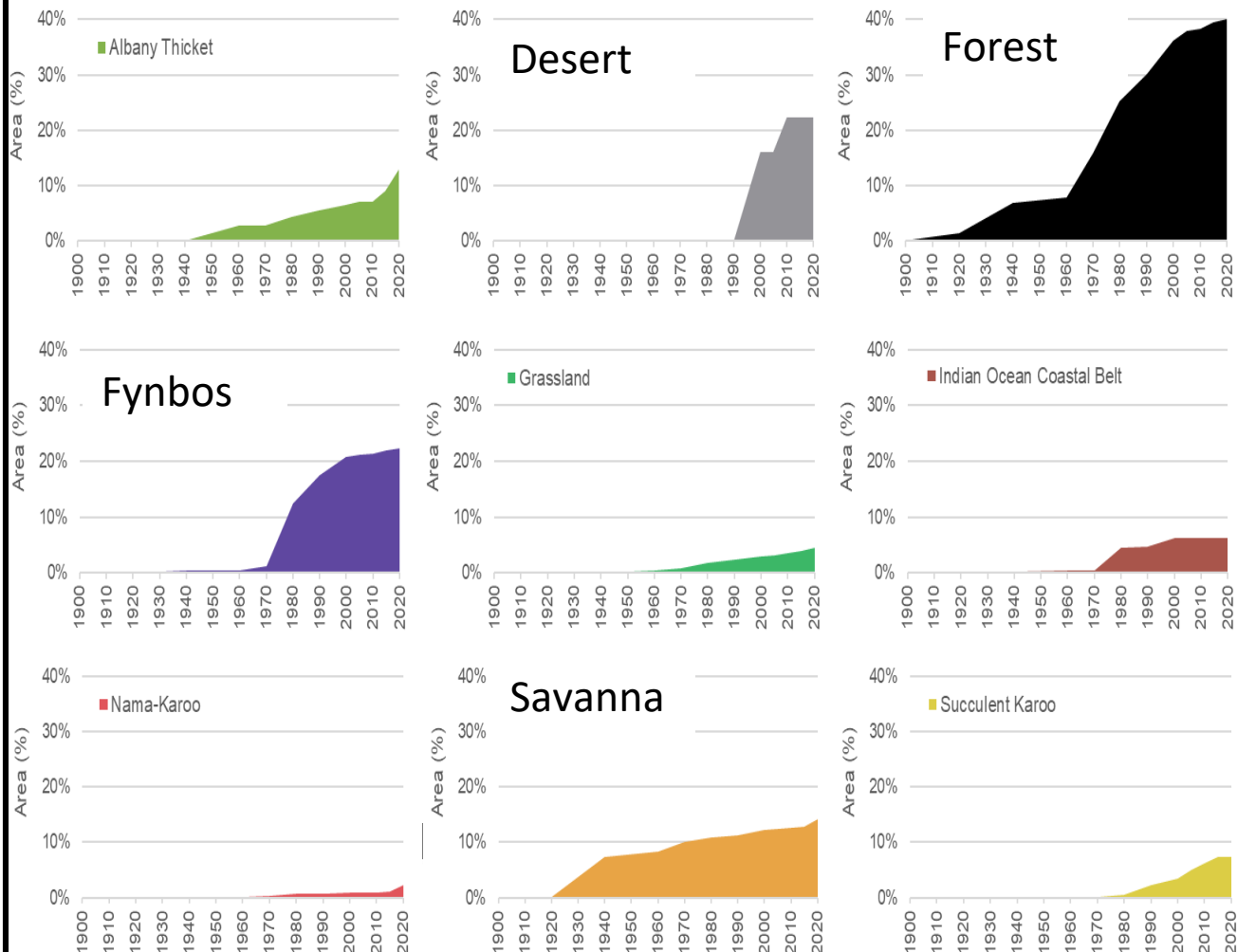South African National Biodiversity Institute

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Key findings: biome level

Cumulative extent of the land-based protected area estate in each biome, from 1900 to 2020

In **hectares**, on a scale of 0 ha to 6 million ha
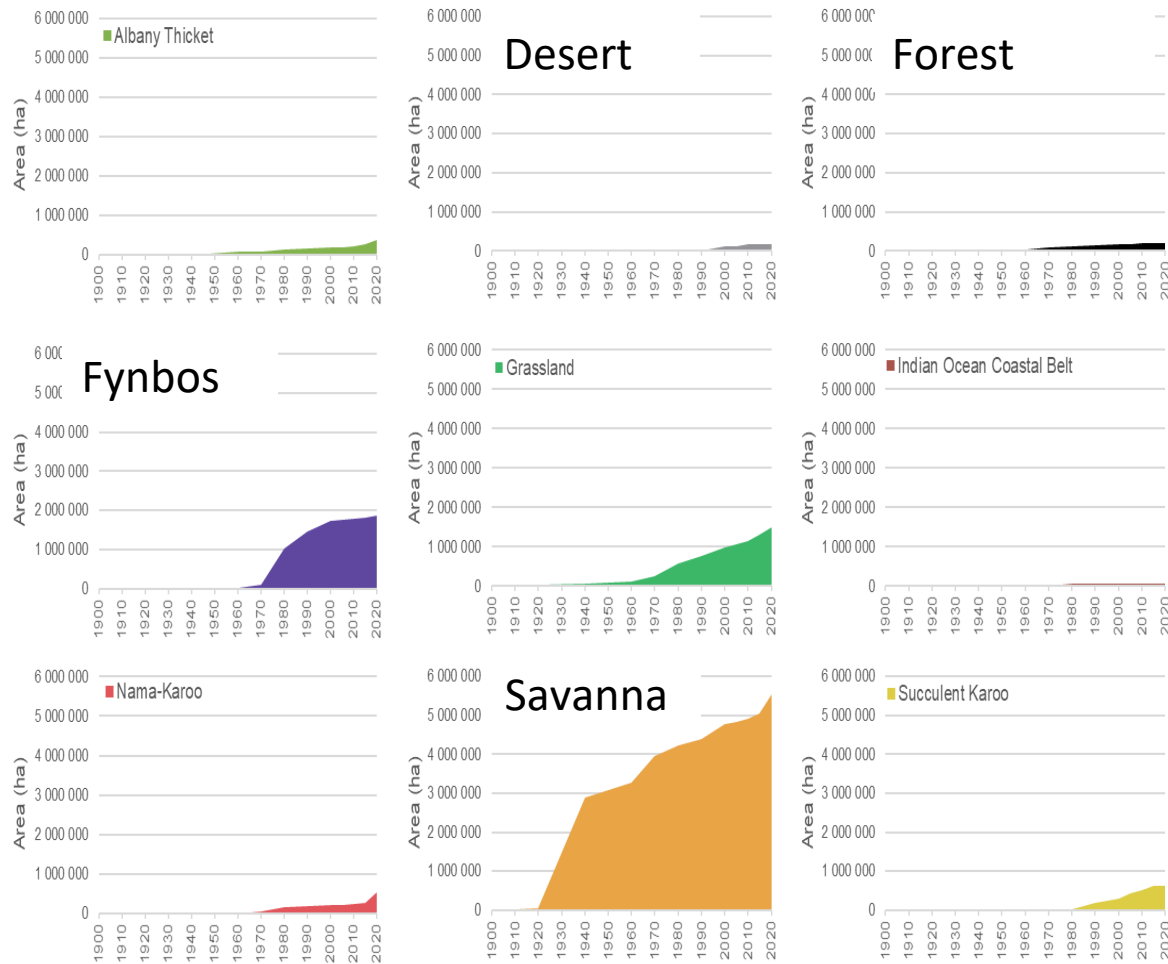
As a **percentage** of the total biome area, on a scale of 0% to 40%

Concluding comments

- **These accounts present information that can be used to provide**:
  - Evidence to inform planning and decision-making related to protected areas, along with the NBA, National and provincial PA Expansion Strategies, among others.
  - Information for reporting on progress towards national and global targets for protected areas.

- **To further enhance the NCA offering, recommendations included**:
  - Expanding the accounts to include all realms
  - Exploring additional accounts for protected areas such as accounts of ecosystem services from PAs or accounts on expenditure in PAs
  - Explore links to other socio-economic data e.g., contribution of PAs to rural development and biodiversity economy.

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Thank you for listening