

NATURAL CAPITAL 2

Accounts for Protected Areas, 1900 to 2020

IMPROVING LIVES THROUGH DATA ECOSYSTEMS



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Natural Capital 2

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PREFACE

South Africa is at the forefront of a global movement on Natural Capital Accounting (NCA). NCA is a growing field of work globally and in South Africa. It includes accounting for environmental assets such as land, water, minerals and energy, and also for ecosystem assets and ecosystem services, with an international standard, the System of Environmental-Economic Accounting (SEEA), in place for these accounts. This report is part of Statistics South Africa's (Stats SA) Natural Capital series, and presents South Africa's first accounts for protected areas, which form part of the suite of natural capital accounts provided for in the SEEA.

These accounts have been produced as part of the *Natural Capital Accounting and Valuation of Ecosystem Services (NCAVES)* project, which was implemented from 2017 to 2021, led globally by the United Nations Statistics Division (UNSD) and United Nations Environment Programme (UN Environment) with funding from the European Union (EU). South Africa was one of five countries (along with Brazil, China, India and Mexico) participating in this international project. The project aimed to advance the global knowledge agenda and initiate testing of SEEA Experimental Ecosystem Accounting, which focused specifically on accounting for ecosystems. In South Africa, the NCAVES project was led jointly by Stats SA and the South African National Biodiversity Institute (SANBI).

Stats SA is proud to have been involved in the development of the SEEA and several sets of SEEA accounts since the late 1990s through, amongst other things, its role on the United Nations (UN) Statistical Commission, the UN Committee of Experts on Environmental-Economic Accounting (UNCEEAA) and the SEEA Technical Committee. Stats SA has developed natural capital accounts in the form of environmental economic accounts, including water, fisheries, mineral and energy accounts, since the early 2000s.

Stats SA is also proud to be collaborating with SANBI and the Department of Forestry, Fisheries and the Environment (DFFE), in consultation with a range of national and sub-national stakeholders, on implementing SEEA Ecosystem Accounting, which was adopted as a global standard by the United Nations Statistical Commission in March 2021. The standardised approach in SEEA Ecosystem Accounting will allow for the international comparison of ecosystem-related statistics across different countries as more countries adopt this approach. It also links to Stats SA's mandate in the development of statistics with the goal of producing timely, accurate, and official statistics in order to advance economic growth, development, and democracy.

This report is published as a discussion document in the Natural Capital Series to contribute to advancing the knowledge on NCA through application in a developing country context, including on using information from NCA to monitor progress against achieving the goals of the National Development Plan and the global Sustainable Development Goals. Using the best available data in South Africa and applying robust, globally endorsed methodologies, NCA can help public and private sector actors to understand more about the interactions between the economy, society and the environment.

This report also contributes to the implementation of South Africa's National NCA Strategy, which was published by Stats SA in June 2021.

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The European Union (EU) is acknowledged for funding the *Natural Capital Accounting and Valuation of Ecosystem Services (NCAVES)* project and the Delegation of the EU to South Africa for supporting its implementation in South Africa. The United Nations Statistics Division (UNSD) and United Nations Environment Programme (UNEP) are acknowledged for leading the NCAVES project globally and supporting its management and implementation in South Africa. The contents of the report are the sole responsibility of Statistics South Africa (Stats SA) and do not necessarily reflect the views of the EU or the United Nations (UN).

Members of the NCAVES Project Reference Group are acknowledged for their strategic guidance, including representatives of the Delegation of the EU to South Africa, Department of Forestry, Fisheries and the Environment (DFFE), UNEP, UNEP Country Office, and UNSD.

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The accounting tables presented in this report were derived using the Environmental Systems Modelling Platform (EnSym; The State of Victoria, 2018), which is freely available.

The photograph on the front cover showing giraffe and zebra in a savanna ecosystem was provided courtesy of Jane Ferraris.



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ABBREVIATIONS

BGIS	Biodiversity GIS
BSU	Basic Spatial Unit
CBD	Convention on Biological Diversity
DALRRD	Department of Agriculture, Land Reform and Rural Development
DFFE	Department of Forestry, Fisheries and the Environment
EEZ	Exclusive Economic Zone
EnSym	Environmental Systems Modelling Platform
EU	European Union
ha	Hectare
IDEEA Group	Institute for Development of Environmental-Economic Accounting
IUCN	International Union for Conservation of Nature
MEC	Member of the Executive Council
MTSF	Medium-Term Strategic Framework
NBA	National Biodiversity Assessment
NBSAP	National Biodiversity Strategy and Action Plan
NECS	National Ecosystem Classification System
NCA	Natural Capital Accounting
NCAVES	Natural Capital Accounting and Valuation of Ecosystem Services
NGO	Non-governmental organisation
NPAES	National Protected Area Expansion Strategy
NPC	National Planning Commission
OECD	Other Effective Area-based Conservation Measures
PA	Protected area
RSA	Republic of South Africa
SAPAD	South African Protected Areas Database
SA-NECS	South African National Ecosystem Classification System
SANParks	South African National Parks
SANBI	South African National Biodiversity Institute
SEEA	System of Environmental-Economic Accounting
SKA	Square Kilometre Array
SNA	System of National Accounts
Stats SA	Statistics South Africa
UN	United Nations
UNCEEA	United Nations Committee of Experts on Environmental-Economic Accounting
UNEP	United Nations Environment Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNSD	United Nations Statistics Division

1 INTRODUCTION

This report presents the results of South Africa's first set of accounts for protected areas, which form part of Natural Capital Accounting (NCA). This section provides background on NCA, what protected areas and accounts for protected areas are, the scope, purpose and potential uses of these accounts, and key indicators that can be drawn from the accounts.

1.1 What is Natural Capital Accounting?

NCA refers to the use of an accounting framework to provide a systematic way to measure and report on stocks and flows of natural capital, analogous to accounts for other forms of capital. It is a broad term that includes accounting for individual environmental assets or resources, both biotic and abiotic (such as water, minerals, energy, timber, fish), as well as accounting for ecosystem assets and ecosystem services. NCA provides a common framework for measuring and tracking over time the contribution of ecosystems and natural resources to social and economic goals, such as water security, food security and job creation, and provides a wealth of information that can improve planning and decision-making related to the management of natural resources.

Using an accounting framework provides well-accepted, broadly based and globally consistent information on the nature of humanity's connection to the environment and how this is changing over time. Regular production of natural capital accounts can therefore provide standardised statistical information (comparable between countries, or between administrative units within a country, and over time) for tracking and reporting on progress towards sustainable development, including goals and targets set out in policies, frameworks and plans at international, continental, national, provincial or local levels. NCA can provide information to inform economic policy and decision-making for sustainable development.

To this end, a **System of Environmental-Economic Accounting** (SEEA) has been developed by the United Nations (UN) to organise and present statistics on the environment and its relationship with the economy. It is a statistical system that brings together economic and environmental information into a common framework. The SEEA contains an internationally agreed set of standard concepts, definitions, classifications, accounting rules and tables to produce internationally comparable statistics and indicators for policymaking, analysis and research. The **SEEA Central Framework**¹ describes methods to account for changes in land cover, pollution and waste, as well as to account for biodiversity and for stocks and use of natural resources (water, minerals, energy, timber, fish, soil). To complement this, **SEEA Ecosystem Accounting**² describes methods to account for ecosystems and their services, using a spatial approach (UN, 2021). SEEA Ecosystem Accounting includes guidance on compiling thematic accounts related to ecosystems, such as accounts for protected areas.

1.2 What are protected areas?

Protected areas are areas of land or sea that are protected by law and managed primarily for biodiversity conservation (DEA, 2016). The National Environmental Management: Protected Areas Act (Act No. 57 of 2003) (hereafter referred to as the Protected Areas Act) is the central piece of legislation for the establishment and management of the protected area estate in both the terrestrial and the marine environments. It provides for National Parks, Nature Reserves, Special Nature Reserves, Protected Environments and Marine Protected Areas. Other legislation that is also relevant includes the Mountain Catchment Areas Act (Act No. 63 of 1970), the National Forests Act (Act No. 84 of 1998) and the World Heritage Convention Act (Act No. 49 of 1999). In addition, several provinces have their own provincial legislation that deals with protected areas.

¹ <https://seea.un.org/content/seea-central-framework>

² <https://seea.un.org/ecosystem-accounting>

Protected areas are not necessarily owned and managed by government. An important provision in the Protected Areas Act is that protected areas can be declared on private and communal land, and that the landowner (rather than a conservation authority) can be the management authority of the protected area. This provision laid the basis for biodiversity stewardship programmes, in which conservation authorities enter into voluntary contracts with private or communal landowners to declare protected areas in terms of the Protected Areas Act. The landowner retains ownership of the land and is responsible for managing the protected area according to an agreed management plan, with advice and assistance from the conservation authority.

Protected areas are complemented by conservation areas, which are areas not formally protected by law but informally protected by the current owners and users, and managed at least partly for biodiversity conservation. These areas include botanical gardens, conservation zoned areas of UN Educational, Scientific and Cultural Organization (UNESCO) Biosphere Reserves, buffer zones around World Heritage Sites, areas protected by spatial planning laws (e.g. zoning for conservation use) and areas protected by conservation servitudes. They are also sometimes known as “other effective area-based conservation measures” (OECMs). A process is under way globally and in South Africa to develop criteria and standards for OECMs. Conservation areas are not formally protected or recognised in terms of the Protected Areas Act and fall outside the scope of these accounts.

1.2.1 The importance of protected areas

Protected areas form a central part of South Africa’s biodiversity conservation strategy, which is set out in the National Biodiversity Strategy and Action Plan (NBSAP) 2015–2025 (Government of South Africa, 2015). The protected area network aims to protect ecologically viable areas that represent South Africa’s biodiversity and its natural landscapes and seascapes. Collectively, protected areas should conserve representative samples of all ecosystem types as well as critical habitats for species and the ecological and evolutionary processes that allow biodiversity to persist over time.

Protected areas are vital not only for conserving biodiversity but also for ecological sustainability more broadly and for climate change adaptation. They serve as nodes in South Africa’s ecological infrastructure network, protecting ecosystems that deliver important services to people such as the production of clean water, flood moderation, prevention of erosion, carbon storage and the aesthetic value of the landscape. Protected areas play a central role in biodiversity tourism, which is an important component of South Africa’s tourism sector (Bac & Tlholoe, 2017). Protected areas can support rural livelihoods and local economic development, especially in marginal agricultural areas where the wildlife economy and conservation-related industries may have higher economic and job creation potential than traditional agriculture. Protecting and managing biodiversity assets directly provides more than 20 000 jobs in South Africa, many of which are in protected areas and conservation authorities (Driver et al, 2019). Protected areas are thus social and economic assets as well as conservation assets.

Recognising the importance of protected areas, the first National Protected Area Expansion Strategy (NPAES) was published in 2008 (Government of South Africa, 2010), and updated in 2016 (DEA, 2016). The NPAES sets ecosystem-specific targets for protected areas expansion and identifies geographic priorities for expanding the protected areas network, with a focus on ecosystem types that are under-protected. The NPAES takes as its starting point the protected areas targets to which South Africa has committed as a signatory of the Convention on Biological Diversity (CBD). It uses the best available science to identify priority areas for meeting these targets in a coherent and spatially efficient network of protected areas. Several provinces have developed protected area expansion strategies that complement the NPAES.

Contract protected areas declared through biodiversity stewardship programmes are highly cost effective for the state (SANBI, 2017), and have played an increasingly important role in expansion of the protected areas network, helping to leverage conservation investments by private landowners in a fiscally constrained environment where acquisition of land by the state is often not feasible. In the Land Reform Biodiversity Stewardship Initiative, land reform is actively supported through biodiversity stewardship agreements with communal landholders, providing access to the economic opportunities associated with protected areas, for example in the wildlife economy and nature-based tourism.

Protected areas feature in the National Spatial Development Framework (DALRRD & DPME, 2021), in which they form part of the National Ecological Infrastructure Framework. The importance of protected

areas for conserving biodiversity and providing benefits to people is also highlighted in the National Development Plan (NPC, 2012).

In the global Sustainable Development Goals (SDGs), protected areas feature in the targets and indicators for SDG 14, Life Under Water, and SDG 15, Life On Land. Protected areas will be central to the Post-2020 Global Biodiversity Framework, which at the time of writing was under development through the CBD (UN, 1992 & CBD, 2010).

For more on the role and importance of protected areas, see the National Protected Areas Expansion Strategy 2016 (DEA, 2016) and the National Biodiversity Assessment (NBA) 2018 (SANBI, 2019).

1.2.2 Conservation authorities

Conservation is a concurrent competence across the national and provincial spheres of government in terms of the Constitution. There are several conservation authorities in South Africa responsible for protected areas. These include the nine provincial departments with responsibility for the environment, four of which have additional boards dealing with conservation (CapeNature, Eastern Cape Parks and Tourism Agency, Ezemvelo KZN Wildlife, Mpumalanga Tourism and Parks Agency). At the national level, conservation authorities include South African National Parks (SANParks) and the iSimangaliso Wetland Park Authority. There are also several non-governmental organisations that have a conservation focus and as discussed below, private and communal landowners play an increasingly important role in managing protected areas in partnership with conservation authorities. The Minister of Forestry, Fisheries and the Environment has overarching responsibility for national protected areas, while the relevant Members of the Executive Council (MECs) are responsible for provincial protected areas.

1.2.3 Types of protected areas

Section 9 of the Protected Areas Act provides for several types of protected area in South Africa, which are summarised in Table 1. National Parks, Nature Reserves and Protected Environments are declared in terms of the Protected Areas Act, while Forest Nature Reserves, Forest Wilderness Areas, Mountain Catchment Areas and World Heritage Sites are declared in terms of other legislation and recognised by the Protected Areas Act. All have formal status as protected areas and are included in these accounts.

Not shown in Table 1 are Marine Protected Areas, which were declared in terms of the Marine Living Resources Act (Act No. 18 of 1998) until 2014 and since then in terms of the Protected Areas Act. As discussed in Section 1.4 below, Marine Protected Areas have not been included in this iteration of the accounts for protected areas but the intention is to include them in future iterations.

Table 1. Description of types of protected areas in South Africa

Type of protected area	Description	Declared by	Management authority
National Park	Means an area which was a park in terms of the National Parks Act, 1976 (Act No. 57 of 1976), or an area declared in terms of section 20 of the Protected Areas Act (Act No. 57 of 2003). National Parks protect areas of national or international biodiversity importance or contain a viable, representative sample of South Africa's natural systems, scenic areas or cultural heritage sites. They provide spiritual, scientific, educational, recreational and tourism opportunities which are environmentally compatible; and contribute to economic development, where feasible. National Parks are managed by SANParks. The declaration is binding on the property (title deed restriction) and on the landowner (where a contract with a landowner exists it is usually for 99 years or in perpetuity). A National Park may be declared on state, private or communal land.	Minister of Environment	SANParks. May involve co-management agreements with private landowners, Communal Property Associations or the occupiers of communal land.

Type of protected area	Description	Declared by	Management authority
Nature Reserve	Means an area declared in terms of section 23 of the Protected Areas Act, or an area which before or after commencement of this Act was or is designated in terms of provincial legislation for a purpose aligned with section 23(2) of the Protected Areas Act. Nature Reserves are declared to supplement the system of National Parks of South Africa, and to protect areas of significant natural features or biodiversity, of scientific, cultural, historical or archaeological interest; or is in need of long-term protection for the maintenance of its biodiversity, provision of ecosystems services, sustainable flow of natural products to meet local community needs and enable continuation of traditional consumptive uses, and provide for nature-based recreation and tourism. A Nature Reserve may be declared on state, private or communal land. The declaration is binding on the property (title deed restriction binding on successor in title) and on the landowner. Where a contract with a landowner exists, it is usually for 99 years or in perpetuity. Nature Reserves are usually managed by provincial conservation authorities or by private landowners, Communal Property Associations or the occupiers of communal land. This type of declaration involves more stringent management regulations than in a Protected Environment and restricts unsustainable land use.	Minister or MEC for Environment	Any suitable person, organisation or organ of state.
Protected Environment	Means an area declared in terms of section 28 of the Protected Areas Act, or an area which before or after the commencement of this Act was or is declared or designated in terms of provincial legislation for a purpose for which that area could in terms of section 28(2) be declared as a protected environment; or an area which was a lake area in terms of the Lake Areas Development Act, 1975 (Act No. 39 of 1975). Protected Environments are declared to: regulate the area as a buffer zone for the conservation and protection of a Special Nature Reserve, National Park, Marine Protected Area, World Heritage Site or Nature Reserve; to enable owners of the land to take collective action to conserve biodiversity, natural characteristics, scientific, cultural, historical, archaeological or geological value, scenic and landscape value or provision of environmental goods and services; to protect a specific ecosystem outside of a Special Nature Reserve, National Park, World Heritage Site or Nature Reserve; to ensure sustainable use. A Protected Environment may be declared on state, private or communal land. Declaration is less restrictive in terms of restricted land uses than National Parks or Nature Reserves. The declaration is binding on property (optional title deed restriction) and binding on the landowner.	Minister or MEC for Environment	Any suitable person, organisation or organ of state.
Forest Nature Reserve	Means an area declared as a protected area in terms of section 8 of the National Forests Act, 1998 (Act No. 84 of 1998). If any such area has been declared as or included in a Special Nature Reserve, National Park or Nature Reserve declared in terms of the Protected Areas Act, such area must be managed as, or as part of, the Special Nature Reserve, National Park or Nature Reserve in accordance with an agreement concluded between the Minister of Environment and the Cabinet member responsible for forestry (should these differ). Note that in the National Forests Act, "forest" includes (a) a natural forest, a woodland and a plantation; (b) the forest produce in it; and (c) the ecosystems which it makes up. This is a broader definition than the definition of the indigenous forest biome in the National Vegetation Map (see Appendix 1).	Requirements as per National Forests Act, 1998 (Act No. 84 of 1998)	
Forest Wilderness Area			
Mountain Catchment Area	Means an area declared under section 2 of the Mountain Catchment Areas Act, 1970 (Act No. 63 of 1970).	Requirements as per the Mountain Catchment Areas Act, 1970 (Act No. 63 of 1970)	
World Heritage Site	Means a World Heritage Site in terms of the World Heritage Convention Act, 1999 (Act No. 49 of 1999). They are landmarks or areas considered as: 'cultural heritage' from the point of view of history, art, science, aesthetic, ethnological or anthropology; or 'natural heritage' of outstanding universal value from the aesthetic, scientific, conservation or natural beauty point of view. They are identified in terms of the Convention concerning the protection of the World Cultural and Natural Heritage adopted in 1972 by UNESCO.	Requirements as per the World Heritage Convention Act, 1999 (Act No. 49 of 1999).	

Type of protected area	Description	Declared by	Management authority
Special Nature Reserve	An area which was a Special Nature Reserve in terms of the Environment Conservation Act, 1989 (Act No. 73 of 1989), or an area declared in terms of section 18 of the Protected Areas Act. Special Nature Reserves are declared to protect highly sensitive, outstanding ecosystems, species or geological or physical features in the area; and to make the area primarily available for scientific research or environmental monitoring.	Minister of Environment	Any suitable person, organisation or organ of state.

Source: RSA, 2003 & SANBI, 2018b.

In the protected area dataset, there are no overlaps between National Parks, Nature Reserves, Protected Environments, Forest Nature Reserves and Forest Wilderness Areas. In cases where more than one of these types of protected area has been declared on a site, the most recent declaration takes precedence. In contrast, World Heritage Sites routinely overlap with other types of protected areas, with both the World Heritage Site status and the other protected area type being recognised concurrently. As such, an area that has been declared as a National Park, Nature Reserve, Protected Environment, Forest Nature Reserve or Forest Wilderness Area may also be declared a World Heritage Site, and portions of World Heritage Sites may be declared as another type of protected area. If buffer areas have been formally delineated for a World Heritage Site, these do not qualify as protected areas but are considered conservation areas. In World Heritage Sites without any official delineation of core and buffer areas, the whole World Heritage Site is considered a protected area. Appendix 2 provides a brief description of South Africa's ten World Heritage Sites, and Sections 2.1 and 3.2 explain how the overlaps between World Heritage Sites and other types of protected area have been dealt with in the accounts. Mountain Catchment Areas can also overlap with other types of protected area, but the extent of such overlaps is much smaller than for World Heritage Sites and they have not been given special treatment in the accounts.

1.3 What are accounts for protected areas?

In SEEA Ecosystem Accounting, accounts for protected areas are considered a thematic account. Thematic accounts are accounts that organise data on themes of specific policy relevance. Examples of relevant themes include biodiversity, climate change, oceans and urban areas. In all these cases, some data can be obtained from the ecosystem accounts, and additional relevant data can also be sourced from SEEA Central Framework and the System of National Accounts (SNA). Data from other information systems or measurement frameworks can also sometimes be drawn on or linked to thematic accounts. The principles and design of thematic accounts are described and introduced in chapter 13 of SEEA Ecosystem Accounting (UN, 2021).

Accounts for protected areas provide a standardised approach to summarising historical changes in the protected area estate and linking this to other relevant information. The accounts presented here use information on the extent of protected areas and link this to information from the ecosystem extent account for terrestrial ecosystems published in 2020 (Stats SA, 2020). In future, as discussed in Section 1.4, the accounts could be expanded to include additional information on ecosystems as well as socio-economic information.

The purpose of accounts for protected areas includes:

- To provide evidence to inform planning and decision-making related to protected areas, along with the NBA, the NPAES, and provincial protected area expansion strategies, among others.
- To provide information for reporting on progress towards national and global targets for protected areas, for example those in government's Medium-Term Strategic Framework (MTSF) and South Africa's commitments as a signatory of the CBD.

The users of these accounts are likely to include conservation authorities, environmental affairs departments, stakeholders involved in the green economy and biodiversity sector, and a range of non-governmental organisation (NGOs), professionals and specialists. The accounts may also be of interest

to people who are less familiar with South Africa's protected areas but are interested in learning more about them.

By presenting information in a consistent, standardised accounting format, accounts can yield a range of indicators that can be applied in decision-making. These indicators can be extracted from accounts at a range of spatial scales, from national to local. Key indicators that emerge from the accounts for protected areas presented here are:

- Size of the protected area estate;
- Proportion of the country (or province or biome) protected;
- Percentage change in the size of the protected area estate for a given accounting period; and
- Composition of the protected area estate in terms of different types of protected areas.

As the scope of the accounts for protected areas expands in future iterations (see Section 1.4), additional indicators may be added to this list.

1.4 Scope of the accounts presented in this report

The accounts presented here deal only with protected areas on South Africa's mainland. Within the mainland, the accounts include all types of land-based protected areas, which are described in Section 1.2.3. The accounts do not include Marine Protected Areas in South Africa's territorial waters or Exclusive Economic Zone (EEZ), or protected areas in South Africa's Sub-Antarctic territory (see Figure 1).

Land-based protected areas may provide protection for both terrestrial and freshwater ecosystems. The accounts deal explicitly with the terrestrial realm, with account tables provided for protected areas in terrestrial biomes (Section 5 and Appendix 4). Account tables are not provided for individual terrestrial ecosystem types, but the underlying spreadsheets contain information on the extent of protected areas in each terrestrial ecosystem type, which has been summarised in Appendix 5. Future iterations of the accounts may also include explicit analysis of protected areas in relation to the freshwater realm (rivers and wetlands). Because Marine Protected Areas are not included, the marine realm is not addressed in these accounts.

The accounts track the expansion of the protected area estate at regular time steps over the period 1900 to 2020, at the national level and for provinces and biomes, disaggregated by types of protected areas. A decision was made that the accounts should include the period 1900 to 2000 even though, as discussed in Section 2.1, there is considerable complexity related to the historical data on protected area declaration dates. For future iterations, a decision will need to be made about whether it makes sense to retain the earlier accounting periods and work to improve the accuracy of the accounts for those periods, or whether to focus exclusively on the accounts from 2000 onwards.

As discussed in Section 1.2, land-based protected areas can be owned by the state or by private or communal landowners. Currently, data on ownership of protected areas is incomplete so the scope of the accounts does not include land ownership, but future iterations of the accounts may include this. The accounts are also not able to systematically identify contract protected areas declared through biodiversity stewardship programmes, but as systems for recording the data improve, the accounts will expand to include this.

The accounts do not include an analysis of ecosystem service flows from protected areas, but this may be included in future iterations.

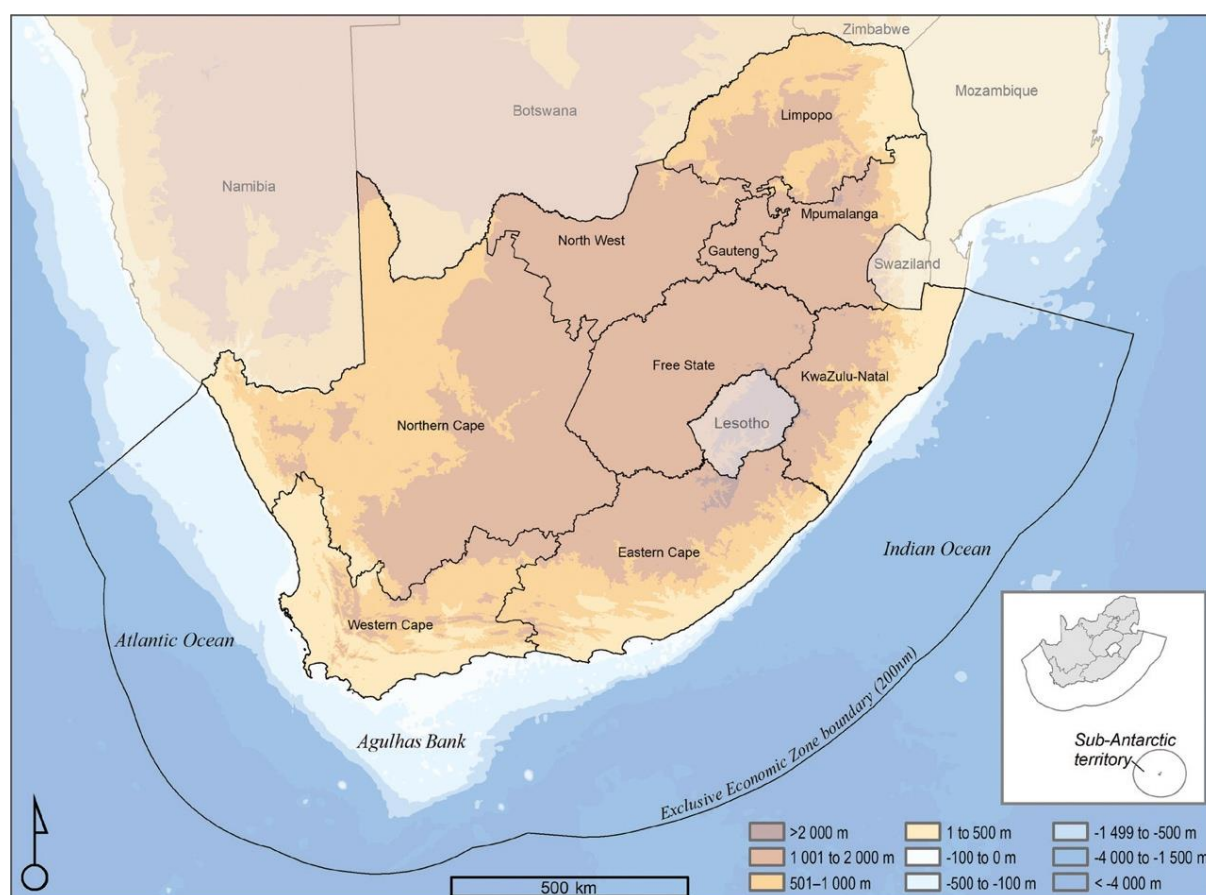
Future accounts for protected areas may draw on a range of social and economic information, including:

- Expenditure on protected areas;
- Number of jobs related to protected areas;

- Land cover and land use in and around protected areas (drawing on South Africa's land accounts);
- Demographic factors in and around protected areas (drawing on the population census); and
- Size and composition of conservation areas (in addition to the protected areas).

The scope of the accounts for protected areas does not include assessing the protection of ecosystem types relative to the ecosystem-specific targets for protection that are set in the NPAES. Such an assessment is done in the NBA and yields the headline indicator Ecosystem Protection Level. This indicator highlights which ecosystem types are well represented in the protected area network and which are under-represented. Ecosystem Protection Level is assessed in the NBA for each ecosystem type across all realms and is reported together with Ecosystem Threat Status.

Figure 1. The geography of South Africa showing the elevation range of the mainland and bathymetric (depth) profile of the territorial waters and Exclusive Economic Zone, as well as provincial boundaries. The location of South Africa's sub-Antarctic territory, namely Prince Edward and Marion Islands, 1 700 km from the main land, is shown in the inset.



Source: SANBI, 2019

1.5 Structure of the report

The report is structured in six sections as follows:

- Section 1 (this section) – clarifies the concepts of NCA, the SEEA, accounts for protected areas; highlights the purpose and potential uses of the accounts; and frames the scope of the accounts.
- Section 2: Essential foundations – outlines the foundational data layers used in these accounts.
- Sections 3, 4 and 5: Key findings – presents the results of the accounts at the national level, the provincial level and the biome level, respectively.
- Section 6: Directions for future work – makes recommendations for future work on accounts for protected areas.

The report is accompanied by a supplementary Excel workbook containing accounts tables that can be downloaded from the Statistics South Africa (Stats SA) website (<http://www.statssa.gov.za/>). A Sources and Methods Report, (Stats SA, 2021a), which gives details on the data sources used and the methodology, is available from Stats SA on request.

2 ESSENTIAL FOUNDATIONS FOR ACCOUNTS FOR PROTECTED AREAS

The accounts for protected areas are inherently spatial, in other words geographical. This means that producing the accounts requires the use of geospatial information. This section describes the fundamental spatial datasets used in the creation of these accounts:

- A **national protected area** dataset.
- The **National Vegetation Map**, which represents terrestrial ecosystem types and biomes.

To produce the accounts these datasets are used together with the national **Basic Spatial Unit** (BSU) layer, a grid of 1 hectare (ha) (100 x 100 m) cells which provides a consistent spatial framework for integrating data from a range of sources, including ecosystem-related data as well as demographic and economic data. Information about the BSU is available in a separate BSU report (Stats SA, 2021b) as well as in the Sources and Methods Report (Stats SA, 2021a) that accompanies this account, which are available from Stats SA on request.

2.1 Protected area data

The protected area dataset used for compiling these accounts was derived from the South African Protected Areas Database (SAPAD), which is a spatial data inventory of protected areas in South Africa that is developed and maintained by the Department of Forestry, Fisheries and the Environment (DFFE).

DFFE acquires, develops, maintains and uses spatial data on protected areas in support of its internal business functions and public services it provides, including monitoring and reporting requirements in relation to protected areas. The data is developed using public funds and is therefore in the public domain and available freely on [DFFE's website](#). DFFE acquires several protected area datasets from outside sources such as national and provincial conservation authorities. SAPAD is updated and released quarterly. These accounts include declarations up until the end of 2020.

SAPAD captures the areas under formal legislative protection in terms of the Protected Areas Act. It therefore includes National Parks, Nature Reserves, Special Nature Reserves, Protected Environments, Mountain Catchment Areas, Forest Nature Reserves, Forest Wilderness Areas, World Heritage Sites and Marine Protected Areas. The legal status of the areas is audited against official gazettes before inclusion into the database. This auditing is an ongoing task, leading to gradual improvements in the accuracy of the database. As discussed below, accuracy is generally good from 2000 onwards but less so prior to 2000 for a range of reasons. SAPAD data is collected by land parcels which are aggregated to protected area level. Protected areas are often established incrementally, with one protected area consisting of multiple portions with different declaration dates. SAPAD includes state owned, privately owned and communally owned protected areas.

SAPAD also formed the core of the protection level analysis in the NBA 2018 (SANBI, 2019). The use of SAPAD for this purpose required restructuring of the dataset in a manner similar to that required for the compilation of accounts. For the NBA, SANBI also investigated and resolved inconsistencies between conservation authority data and SAPAD. The steps involved in this are described in Skowno et al (2019).

For compiling the accounts for protected areas presented here, SAPAD formed the core of the protected area data, but the data was restructured to align with the data structure for the protected area layer used in the NBA. The steps involved in data cleaning and preparation for compilation of the accounts are described in the report on sources and methods for the accounts for protected areas. The strength of this dataset is that it includes protected area names, types and declaration dates in a manner that provides a time series for accounts.

As discussed in Section 1.2, there are many cases in which portions of a World Heritage Site have also been declared as another type of protected area, leading to spatial overlaps between World Heritage

Sites and other types of protected area. For instance, the Cape Floristic Region Protected Area World Heritage Site overlaps with sites also declared as National Parks or Nature Reserves or Forest Wilderness Areas or Mountain Catchment Areas. In the Protected area dataset, a primary and a secondary protected area type was captured for such sites. “World Heritage Site” is always the secondary type. To avoid double-counting, the account tables reflect only the primary type. As a result, the World Heritage Site extent in the account tables reflects only those portions of the World Heritage Site that are not also declared as another type of protected area. Section 3.2 presents information on the full extent of World Heritage Sites and provides an analysis of the overlaps between World Heritage Sites and other types of protected area, so as not to lose information about the full extent of World Heritage Sites.

The period 1900 to 2020 has been divided into 11 accounting periods, with 20-year intervals from 1900 to 1960, ten-year intervals from 1960 to 2000, and five-year intervals from 2000 to 2020. The protected area dataset was used to construct spatial data layers reflecting the protected area estate at the closing date of each accounting period.

The protected area dataset has several limitations, including the following:

- The dataset currently includes the date of declaration of protected areas (or portions of protected areas where the protected area consists of multiple portions declared at different times) audited against the government gazette. It does not include dates of establishment in cases where these differ from the declaration date. There are complex reasons why declaration and establishment dates do not always coincide. In addition, some protected areas or portions of protected areas have been redeclared as newer legislation has replaced older legislation, and SAPAD generally records only the most recent date of declaration. Historical information on protected area establishment and declaration is often scant, imprecise and difficult to resolve fully without formal historical research. Examples of such research include Brett (2019), Carruthers (1995) and Van Wilgen et al (2016). The accounts take a simple approach of using the declaration dates as reflected in SAPAD, with full knowledge that alternative dates could be proposed. The initial declaration or establishment of a protected area may have taken place well before its declaration date in SAPAD, which means that in at least some parts of the country the earlier accounting periods under-reflect the actual size of the protected area estate.
- Declaration dates for some protected areas or portions of protected areas in the dataset are absent and are still in the process of being determined and verified against the government gazette. This is the case mainly for protected areas declared between 1950 and 2000, and applies to 728 409 ha altogether, of which the bulk, 617 436 ha, is in Nature Reserves. In the accounts, these protected areas or portions of protected areas have been allocated to the accounting period 1970 to 1980, so in the account tables they form part of the closing stock in 1980. Table 2 below shows that these protected areas or portions of protected areas with declaration dates absent in the dataset amount to 11,1% of the total closing stock in 1980,³ and 6,5% of the closing stock in 2020. As the dataset is improved, it will be possible to allocate these protected areas and portions of protected areas to accounting periods more accurately in future iterations.
- Some of the privately owned Nature Reserves declared prior to the promulgation of the Protected Areas Act have still to be validated.
- The dataset does not include withdrawals of declaration. Based on expert knowledge, withdrawals of declaration have been uncommon in South Africa and areas that have been withdrawn have been small in relation to the protected area estate as a whole, so this omission does not impact substantially on findings from the accounts. Nevertheless, it would be ideal to include withdrawals of declaration in future accounts once the data for this is more reliable.
- The dataset has incomplete information on land ownership in protected areas, and information regarding whether protected areas (or portions thereof) were declared through biodiversity stewardship programmes still needs to be improved to support inclusion of these aspects in the accounts.

³ Some of the protected areas that make up this 11,1% will have been declared between 1970 and 1980, so the overestimate for that accounting period is highly likely to be less than 11,1%.

Notwithstanding these limitations, confidence in the information in the protected area dataset on the size, location and type of protected areas from 2000 onwards is high, with errors of commission or omission generally of very limited spatial extent. This means that the dataset provides a firm foundation for the accounts for protected areas, particularly for the later accounting periods.

Table 2. Analysis of the extent of protected areas with no declaration date in the South African Protected Areas Database.

	National Park	Nature Reserve	Protected Environment	Forest Nature Reserve	Forest Wilderness Area	Mountain Catchment Area	World Heritage Site*	Total area protected
Extent with no declaration date in the dataset (ha)	109 261	617 436		983	129	600		728 409
Stock in 1980	3 414 764	2 522 786	-	59 867	229 432	363 661	-	6 590 510
Proportion of 1980 stock with no declaration date in the dataset	3,2%	24,5%		1,6%	0,1%	0,2%		11,1%
Closing stock 2020	4 218 907	5 022 911	803 018	145 791	277 434	559 428	253 195	11 280 684
Proportion of 2020 stock with no declaration date in the dataset	2,6%	12,3%		0,7%	0,0%	0,1%		6,5%

* Note that World Heritage Sites show only the portion that does not overlap with other protected area types.

2.2 Terrestrial ecosystem types and biomes

South Africa has a National Ecosystem Classification System (NECS) that includes classification systems and maps of all ecosystem types in the country, across the terrestrial, inland water (river and wetland), estuarine and marine realms, with around one thousand distinct ecosystem types recognised altogether (Dayaram et al, 2021).⁴

The South African National Ecosystem Classification System (SA-NECS) aligns well with the Global Ecosystem Typology developed and recently released by the International Union for Conservation of Nature (IUCN),⁵ which is the reference classification for ecosystem types in SEEA Ecosystem Accounting.

Terrestrial ecosystem types are represented by vegetation types identified in the South African portion of the Vegetation Map of South Africa, Lesotho and Swaziland (SANBI, 2018a) (referred to as the National Vegetation Map). Vegetation types are relatively homogenous units in the landscape, identified based on their biophysical characteristics such as species distribution, community composition, underlying geology and soil types, altitude, and rainfall gradients. Vegetation types are delineated based on their historical or potential extent, prior to major human modification of the landscape.

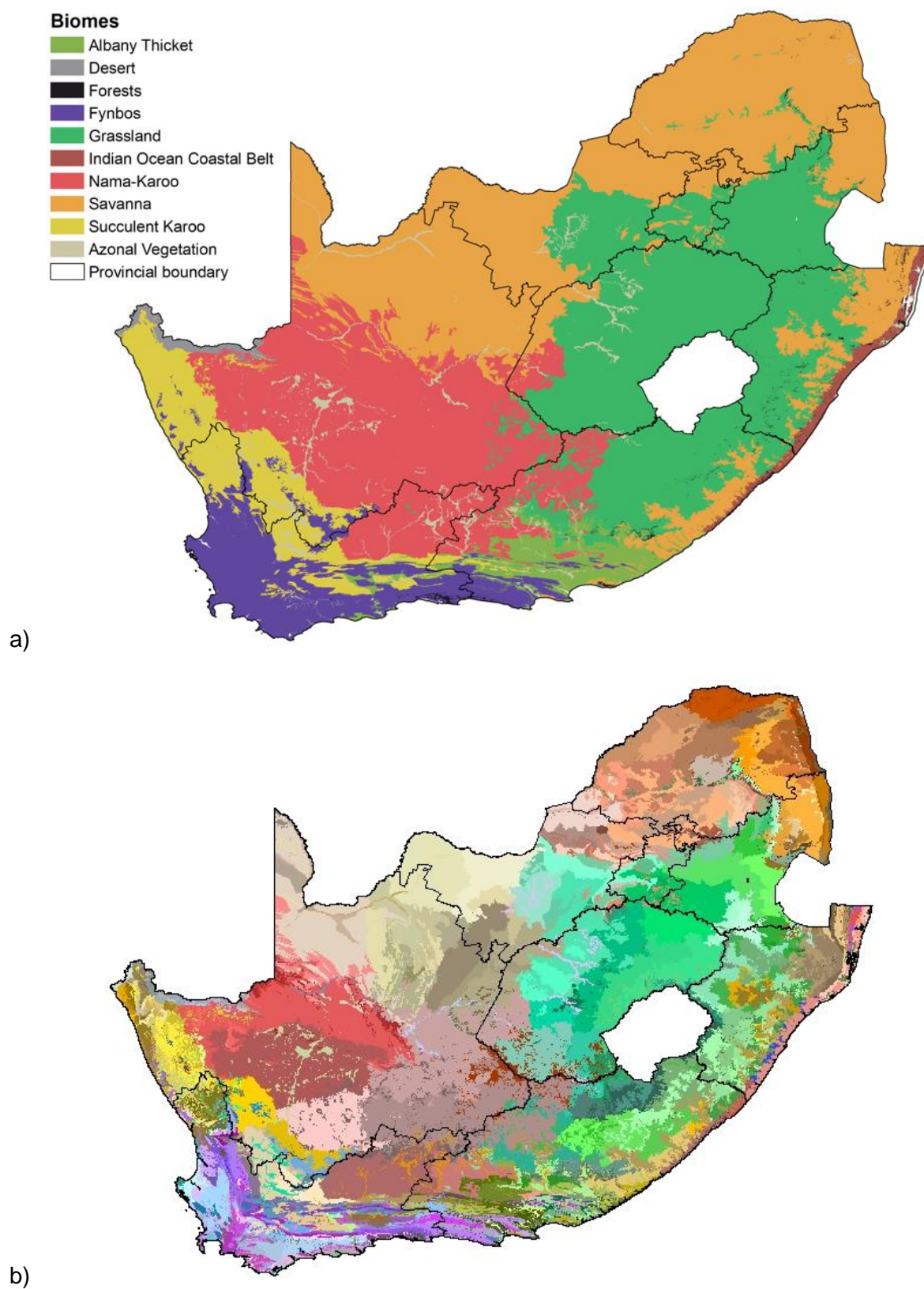
The National Vegetation Map comprises 458 vegetation types in South Africa that are grouped into nine biomes based on similar characteristics (Figure 2). The biomes are used as one level at which these accounts for protected areas are summarised (see Section 5). Appendix 1 provides a brief description of each biome based on its characteristic physiognomy and climatic conditions. The National Vegetation Map also includes some wetlands, reflected as “azonal vegetation” (i.e. not belonging to a particular biome), and a few large inland waterbodies, but wetlands and waterbodies were not mapped systematically across the country as part of the development of the National Vegetation Map. The South African Inventory of Inland Aquatic Ecosystems provides a much more comprehensive map and classification of wetlands than the azonal biome in the National Vegetation Map, so the accounts for protected areas by biome presented in Section 5 do not give details for these.

National vegetation types have been used as surrogates for terrestrial ecosystem types in a range of applications related to national assessment, planning and policy, including the NPAES (DEA, 2016).

⁴ SANBI is the custodian of the SA-NECS, as part of its mandate under the National Environmental Management: Biodiversity Act (Act 10 of 2004). A National Ecosystem Classification Committee, with a sub-committee for each realm, is convened by SANBI to oversee the development and refinement of the classification and accompanying maps of ecosystem types. Spatial data and other information from the SA-NECS is freely available on SANBI's Biodiversity GIS website (<http://bgis.sanbi.org>).

⁵ <https://iucnrl.org/about-rle/ongoing-initiatives/global-ecosystem-typology/>

Figure 2. Terrestrial ecosystem types are (a) aggregated into nine biomes, within which (b) 458 vegetation types in the National Vegetation Map are nested.



Source: SANBI (shapefile and documents describing vegetation types are available on Biodiversity GIS [BGIS] <http://bgis.sanbi.org/Projects/Detail/60>).

3 KEY FINDINGS AT THE NATIONAL LEVEL

This section presents key findings from the accounts for protected areas at the national level, showing the size and composition of the protected area estate from 1900 to 2020. This period has been divided into 11 accounting periods, with 20-year intervals from 1900 to 1960, ten-year intervals from 1960 to 2000, and five-year intervals from 2000 to 2020.

A selection of findings is highlighted to illustrate the types of information that can be extracted from the accounts and presented in graphs or maps. A wide range of further findings and analyses are possible based on the underlying accounting tables. Some additional detail for World Heritage Sites is presented, as they overlap substantially with other types of protected areas.

3.1 Size and composition of the land-based protected area estate

Table 3 shows the extent account for land-based protected areas on South Africa's mainland for the period 1900 to 2020, divided into 11 accounting periods with seven different types of protected area, based on the declaration dates recorded in SAPAD. For each accounting period and for each type of protected area, the account table presents the opening stock, additions to stock, reductions in stock, net change in stock and closing stock. The final two columns in the table show the total extent of the protected area estate in absolute terms and as a proportion of South Africa's total mainland area. Table 4 and Figure 3 show the composition of the protected area estate in 2020. The cumulative extent of the protected area estate over the period 1900 to 2020 is summarised in absolute terms in Figure 4. Table 5 and Figure 5 show how the composition of the protected area estate changed over the period 1900 to 2020. The extent of the protected area estate at each time interval since 1980 is shown in a series of maps in Figure 6 to Figure 12. Together these provide a visual picture of expansion of the protected area estate.

As discussed in Section 2.1, declaration dates for protected areas are not straightforward to determine and do not always correspond with the date of establishment of a protected area. Also, the certainty of declaration dates is not even across the accounting periods, with generally high confidence in the data from 2000 onwards but decreasing confidence as one moves back in time. Declaration dates for some protected areas or portions of protected areas are absent in the dataset, and these have been allocated to the accounting period 1970 to 1980, making up 11,1% of the closing stock in 1980. Improvements in the accuracy of the protected area data in the future will alter the distribution of increases in the size of the protected area estate across accounting periods, especially for the accounting periods prior to 2000.

The key findings below have largely been drawn from the four accounting periods since 2000. For the reasons discussed above, caution should be given to drawing findings from the accounting periods prior to 2000.

Key findings from the national protected area extent account include:

- The closing stock of protected areas in 2020 was 11 280 684 ha or 9,2% of the mainland surface area.
- The protected area types that contribute most to this overall figure are Nature Reserves, National Parks, and Protected Environments.
- Nature Reserves account for 4,1% of the mainland area and make up 44,5% of the protected area estate. They make up the majority of the protected area estate in all but Mpumalanga and Northern Cape provinces (Figure 16). Nature Reserves are the type of protected area that makes the largest proportional contribution to protecting Forest, Fynbos, Grassland and Indian Ocean Coastal Belt biomes (Figure 20).
- National Parks make up 3,5% of the mainland area and contribute 37,4% to the protected area estate. National Parks make up the majority of the protected area estate in only two provinces, Mpumalanga and Northern Cape, but make the largest proportional contribution to protecting four biomes, namely Desert, Nama-Karoo, Savanna and Succulent Karoo.

- Protected Environments, despite being a relatively recent type of protected area, make the third largest contribution to the protected area estate. They contribute 7,1% to the protected area estate and cover 0,7% of the mainland area (Figure 3 and Table 4). The largest increase in absolute terms was in the most recent accounting period 2015 to 2020, during which 507 116 ha were declared as protected environment. By the end of 2020, Protected Environments made the largest proportional contribution to protecting the Albany Thicket biome.
- Protected Environments have been an important protected area type in recent years. The provinces in which their contribution is proportionally large based on extent at the end of 2020 are Eastern Cape (where they make up 38,0% of the province's protected area estate), and North West (where they make up 10,3% of the province's protected area estate).
- The earliest declaration date for National Parks recorded in SAPAD is 1926, under the then National Parks Act, 1926 (Act No. 56 of 1926). These included the Kruger National Park, and later Addo Elephant National Park, Kalahari Gemsbok National Park, and Mountain Zebra National Park. These four National Parks combined accounted for over 3 million ha of PA and increased the total extent of South Africa's land-based protected area estate to 2,7% of the country's mainland area at the time. Although not included in this analysis, the first Marine Protected Area was declared in 1964.
- The size of the land-based protected area estate increases in the period after 1960 with the introduction of legislation that came into effect in the 1960s and 1970s that allowed for the declaration of additional types of protected areas. Mountain Catchment Areas were declared under the Mountain Catchment Areas Act, 1970 (Act No. 63 of 1970) to conserve important water source areas, mainly in the south-western Cape. Forest Nature Reserves and Forest Wilderness Areas (absolute minimal human disturbance permitted) were declared under the National Forests Act, 1998 (Act No. 84 of 1998). Based on SAPAD data, both the extent of the protected area estate and the number of different types of protected areas increased from the 1970s, and there had been no net increase in Mountain Catchment Areas or Forest Wilderness Areas since the end of 1990.
- By the end of 2000, the protected area estate was 8 920 264 ha, occupying 7,3% of the South African mainland. From 2000 to 2005, the land-based protected area estate increased by 325 872 ha (3,7% of the opening stock). National Parks made up the majority of this increase with the declaration of Namaqua National Park (136 765 ha) in 2001 and Camdeboo National Park (18 703 ha) in 2005. Nature Reserves declared in this period included Impendle Nature Reserve (8 822 ha), Bewaarkloof (24 157 ha), Mariepskop Conservation Area (11 442 ha), and Balele/Enlanzeni Valley Game Park (9 415 ha established as part of a stewardship programme).
- From 2005 to 2010, the land-based protected area estate increased by 357 805 ha (3,9% of the opening stock). In this accounting period, the portion of World Heritage Sites not in other protected areas made up 60,0% of the increase in protected area estate, with just over 213 000 ha declared with the proclamation of Maloti-Drakensberg, Robben Island, Fossil Hominid Sites and Richtersveld Cultural and Botanical Landscape World Heritage Sites (see Section 3.2 for discussion of the overlap of World Heritage Sites with other types of protected area). Nature Reserves added a further 91 467 ha to the protected area estate with some of the larger reserves including Zululand Rhino Reserve (20 101 ha), eMakhosini-Opathe Heritage Park (16 574 ha), Dwarsrivier Nature Reserve (5 783 ha), Groenefontein Provincial Nature Reserve (5 244 ha), Elandsberg (4 619 ha), and Matatiele Nature Reserve (4 410 ha). Additionally, Mokala National Park (25 972 ha) and KwaMandlangampisi Protected Environment (26 053 ha) were declared in this accounting period.
- From 2010 to 2015, the land-based protected area estate increased by 5,1% and just under 500 000 ha. Nearly 60,0% of this were Nature Reserves and just under 40,0% were declarations of Protected Environment. Nature Reserves declared in this accounting period include Knersvlakte Nature Reserve (90 056 ha), Hluhluwe-Imfolozi Park (12 190 ha), and Nambiti Private Game Reserve (8 354 ha). Protected Environments declared in this accounting period include Chrissiesmeer (57 502 ha), Noorsveld (47 906 ha), Compassberg (28 751 ha), Cedarville (15 146 ha) and Pongola Bush (9 245 ha) Protected Environments. There were no National Parks declared in this accounting period. There were further additions to Forest Nature Reserves with declarations such as Morgenzon (4 356 ha), Queensriver (3 697 ha), and Hartbeesvlakte (4 413 ha) Forest Nature Reserves.

- From 2015 to 2020, the land-based protected area estate increased more in this 5-year accounting period than it did in the last 15 years combined. It increased by nearly 1,2 million ha. This represents an 11,7% net increase in the protected area estate and brought the closing stock of protected area at the end of 2020 to 11 280 684 ha, or 9,2% of the South African mainland. The increase in protected areas in this accounting period is attributable to a large net increase in Protected Environment (Table 3). Large areas declared as Protected Environments in this period include Mountain-Zebra Camdeboo (275 003 ha), Mphaphuli (60 908 ha), Sneeuwberg (16 757 ha), Indalo (72 168 ha) and De Hoop Dam (19 181 ha) Protected Environments. There were also additions to Nature Reserves, National Parks and Forest Nature Reserves. Large Nature Reserves declared in this period include Baobab Private Nature Reserve (8 287 ha), Mun-ya-wana Conservancy (20 311 ha), Glen Lyon (55 213 ha), Greater Makalali (22 825 ha), Lapalala (27 545 ha), Letaba Ranch (24 902 ha) and Tswalu (111 229 ha) Nature Reserves. The newest National Park, Meerkat National Park (134 956 ha), was declared in 2020 around the Square Kilometre Array (SKA) radio astronomy facility in Northern Cape.

As noted in Section 1.2, contract protected areas declared through biodiversity stewardship programmes have played an increasingly important role in the expansion of the protected area estate in the last decade. However, as noted in Section 2.1, it has not been possible in these accounts to systematically identify which protected areas were declared through biodiversity stewardship programmes, as this information is incomplete in the protected area dataset. This has been identified as an area for future work.

As noted, Marine Protected Areas do not form part of the scope of the accounts presented here, but the intention is to include them in future iterations of the accounts. The marine protected area estate makes up 5,4% of South Africa's mainland marine territory, with the declaration of 20 new offshore Marine Protected Areas in 2019 having increased the size of the estate dramatically from 4 748 km² to 57 943 km².

Special Nature Reserves do not appear in the account tables even though it is a type of protected area that had been declared in South Africa. There are two Special Nature Reserves in the protected area dataset. One is Prince Edward Island Special Nature Reserve and is excluded because it is not on the accounting area, which is the mainland of South Africa. The other is Brenton Blue Butterfly Special Nature Reserve. This is a small protected area (approximately 1,6 ha in size) in Western Cape that was declared as a Special Nature Reserve in 2003. The Special Nature Reserve sits within a larger area declared as the Knysna National Lake Area Protected Environment. In resampling the protected area dataset to the BSU with 1 ha sized cells, the cells over which the small Special Nature Reserve fall were classified as Protected Environment.

Table 3. Extent account for land-based protected areas on South Africa's mainland, 1900–2020, in hectares, based on declaration dates in the South African Protected Areas Database

	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 1900	-	-						121 966 453	121 966 453	-	0,0%
Additions to stock		126 561						-	126 561		
Reductions in stock		-						-126 561	-126 561		
Net change in stock		126 561						-126 561	-	126 561	
<i>Net change as % of opening</i>								-0,1%	0,0%		
Closing stock 1920	-	126 561						121 839 892	121 966 453	126 561	0,1%
Opening stock 1920	-	126 561						121 839 892	121 966 453	126 561	0,1%
Additions to stock	3 032 143	75 208						-	3 107 351		
Reductions in stock	-	-						-3 107 351	-3 107 351		
Net change in stock	3 032 143	75 208						-3 107 351	-	3 107 351	
<i>Net change as % of opening</i>		59,4%						-2,6%	0,0%	2 455,2%	
Closing stock 1940	3 032 143	201 769						118 732 541	121 966 453	3 233 912	2,7%
Opening stock 1940	3 032 143	201 769						118 732 541	121 966 453	3 233 912	2,7%
Additions to stock	-	464 152						-	464 152		
Reductions in stock	-	-						-464 152	-464 152		
Net change in extent	-	464 152						-464 152	-	464 152	
<i>Net change as % of opening</i>	0,0%	230,0%						-0,4%	0,0%	14,4%	
Closing stock 1960	3 032 143	665 921						118 268 389	121 966 453	3 698 064	3,0%
Opening stock 1960	3 032 143	665 921						118 268 389	121 966 453	3 698 064	3,0%
Additions to stock	190 373	801 158						-	991 531		
Reductions in stock	-5	-						-991 526	-991 531		
Net change in extent	190 368	801 158						-991 526	-	991 526	
<i>Net change as % of opening</i>	6,3%	120,3%						-0,8%	0,0%	26,8%	
Closing stock 1970	3 222 511	1 467 079						117 276 863	121 966 453	4 689 590	3,8%

Table 3. Extent account for land-based protected areas on South Africa's mainland, 1900–2020, in hectares, based on declaration dates in the South African Protected Areas Database (continued)

	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 1970	3 222 511	1 467 079		-	-	-		117 276 863	121 966 453	4 689 590	3,8%
Additions to stock	192 253	1 055 710		59 867	229 432	363 661		6	1 900 929		
Reductions in stock	-	-3		-	-	-		-1 900 926	-1 900 929		
Net change in extent	192 253	1 055 707		59 867	229 432	363 661		-1 900 920	-	1 900 920	
<i>Net change as % of opening</i>	<i>6,0%</i>	<i>72,0%</i>						<i>-1,6%</i>	<i>0,0%</i>	<i>40,5%</i>	
Closing stock 1980	3 414 764	2 522 786		59 867	229 432	363 661		115 375 943	121 966 453	6 590 510	5,4%
	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 1980	3 414 764	2 522 786	-	59 867	229 432	363 661		115 375 943	121 966 453	6 590 510	5,4%
Additions to stock	189 929	566 602	12 022	62 129	48 003	195 762		4	1 074 451		
Reductions in stock	-	-2	-	-	-2	-2		-1 074 445	-1 074 451		
Net change in extent	189 929	566 600	12 022	62 129	48 001	195 760		-1 074 441	-	1 074 441	
<i>Net change as % of opening</i>	<i>5,6%</i>	<i>22,5%</i>		<i>103,8%</i>	<i>20,9%</i>	<i>53,8%</i>		<i>-0,9%</i>	<i>0,0%</i>	<i>16,3%</i>	
Closing 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%
	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 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	
<i>Net change as % of opening</i>	<i>7,8%</i>	<i>29,3%</i>	<i>530,6%</i>	<i>5,1%</i>	<i>0,0%</i>	<i>0,0%</i>		<i>-1,1%</i>	<i>0,0%</i>	<i>16,4%</i>	
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%
	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 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	173 036	152 838	-	-	-	-	-	1	325 875		
Reductions in stock	-	-1	-	-	-	-1	-	-325 873	-325 875		
Net change in extent	173 036	152 837	-	-	-	-1	-	-325 872	-	325 872	
<i>Net change as % of opening</i>	<i>4,5%</i>	<i>3,8%</i>	<i>0,0%</i>	<i>0,0%</i>	<i>0,0%</i>	<i>0,0%</i>	<i>0,0%</i>	<i>-0,3%</i>	<i>0,0%</i>	<i>3,7%</i>	
Closing stock 2005	4 057 127	4 147 414	75 807	128 167	277 433	559 422	766	112 720 317	121 966 453	9 246 136	7,6%

Table 3. Extent account for land-based protected areas on South Africa's mainland, 1900–2020, in hectares, based on declaration dates in the South African Protected Areas Database (concluded)

	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 2005	4 057 127	4 147 414	75 807	128 167	277 433	559 422	766	112 720 317	121 966 453	9 246 136	7,6%
Additions to stock	26 817	91 469	26 053	-	-	-	213 470	1	357 810		
Reductions in stock	-2	-2	-	-	-	-	-	-357 806	-357 810		
Net change in extent	26 815	91 467	26 053	-	-	-	213 470	-357 805	-	357 805	
<i>Net change as % of opening</i>	<i>0,7%</i>	<i>2,2%</i>	<i>34,4%</i>	<i>0,0%</i>	<i>0,0%</i>	<i>0,0%</i>	<i>27 868,1%</i>	<i>-0,3%</i>	<i>0,0%</i>	<i>3,9%</i>	
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%
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	
<i>Net change as % of opening</i>	<i>0,0%</i>	<i>6,7%</i>	<i>190,5%</i>	<i>11,9%</i>	<i>0,0%</i>	<i>0,0%</i>	<i>0,0%</i>	<i>-0,4%</i>	<i>0,0%</i>	<i>5,1%</i>	
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	-	1 182 456		
Reductions in stock	-	-	-	-	-	-	-	-1 182 456	-1 182 456		
Net change in extent	134 965	499 086	507 116	2 326	1	3	38 959	-1 182 456	-	1 182 456	
<i>Net change as % of opening</i>	<i>3,3%</i>	<i>11,0%</i>	<i>171,4%</i>	<i>1,6%</i>	<i>0,0%</i>	<i>0,0%</i>	<i>18,2%</i>	<i>-1,1%</i>	<i>0,0%</i>	<i>11,7%</i>	
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%

* Note that World Heritage Sites show only the portion that does not overlap with other protected area types (refer to Section 1.2 and Section 2.1).

Table 4. Summary of the land-based protected area estate by type of protected area in 2020, based on the South African Protected Areas Database.

Protected area types	Protected area extent in 2020 (ha)	Proportion of protected area estate (%)	Proportion of SA mainland (%)
National Park	4 218 907	37,4%	3,5%
Nature Reserve	5 022 911	44,5%	4,1%
Protected Environment	803 018	7,1%	0,7%
Forest Nature Reserve	145 791	1,3%	0,1%
Forest Wilderness Area	277 434	2,5%	0,2%
Mountain Catchment Area	559 428	5,0%	0,5%
World Heritage Site (portion not in other protected area types)	253 195	2,2%	0,2%
Total area protected	11 280 684		9,2%
Area not protected	110 685 769		90,8%
Total area of South Africa's mainland	121 966 453		100%

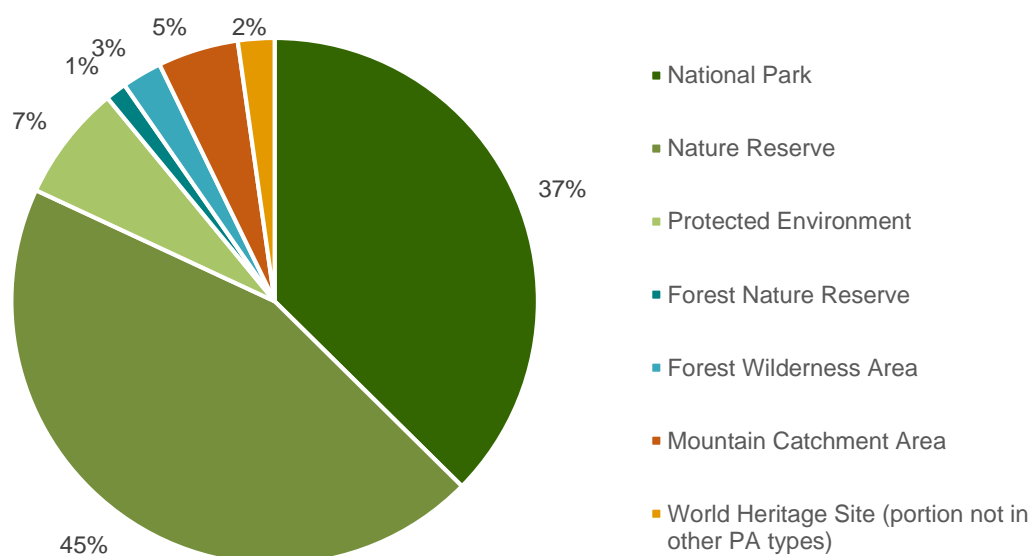
Figure 3. Composition of the land-based protected area estate by type of protected area in 2020, based on the South African Protected Areas Database.

Figure 4. Cumulative extent of the land-based protected area estate by type of protected area, reflecting the 11 accounting periods from 1900 to 2020 and based on declaration dates in the South African Protected Areas Database, in hectares.

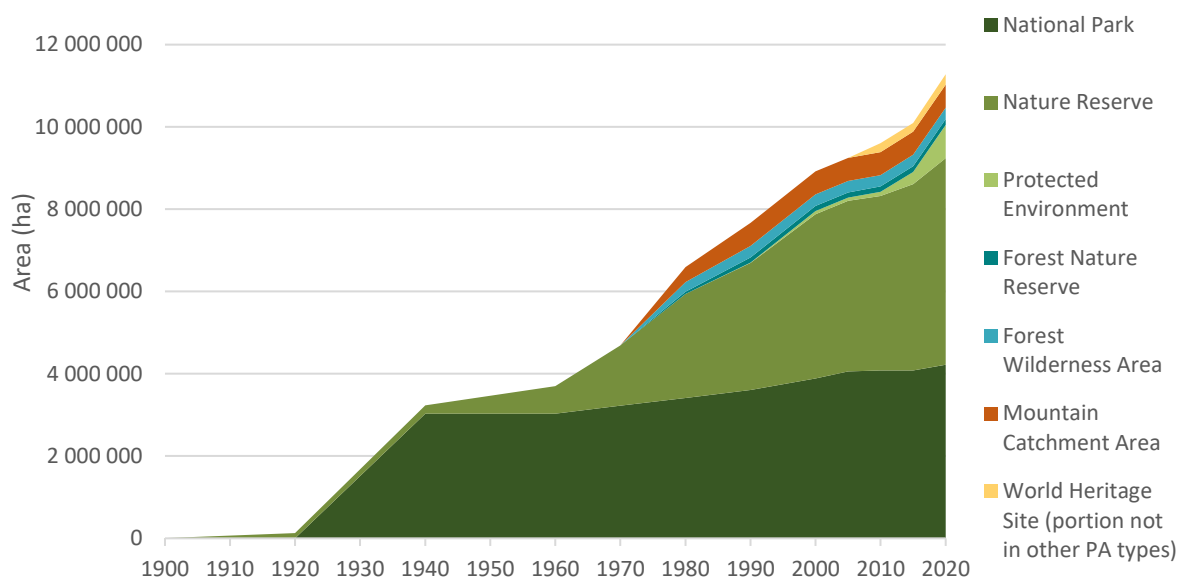


Table 5. Proportion of protected area type making up the land-based protected area estate at the end of each accounting period between 1900 and 2020, based on declaration dates in the South African Protected Areas Database.

Year	National Park	Nature Reserve	Protected Environment	Forest Nature Reserve	Forest Wilderness Area	Mountain Catchment Area	World Heritage Site*
1920	0,0%	100,0%	0,0%	0,0%	0,0%	0,0%	0,0%
1940	93,8%	6,2%	0,0%	0,0%	0,0%	0,0%	0,0%
1960	82,0%	18,0%	0,0%	0,0%	0,0%	0,0%	0,0%
1970	68,7%	31,3%	0,0%	0,0%	0,0%	0,0%	0,0%
1980	51,8%	38,3%	0,0%	0,9%	3,5%	5,5%	0,0%
1990	47,0%	40,3%	0,2%	1,6%	3,6%	7,3%	0,0%
2000	43,5%	44,8%	0,8%	1,4%	3,1%	6,3%	0,0%
2005	43,9%	44,9%	0,8%	1,4%	3,0%	6,1%	0,0%
2010	42,4%	44,0%	1,1%	1,3%	2,9%	5,8%	2,2%
2015	40,3%	44,6%	2,9%	1,4%	2,7%	5,5%	2,1%
2020	37,4%	44,5%	7,1%	1,3%	2,5%	5,0%	2,2%

* Note that World Heritage Sites show only the portion that does not overlap with other protected area types.

Figure 5. Composition of the land-based protected area estate by type of protected area, 1900–2020, based on declaration dates in the South African Protected Areas Database.

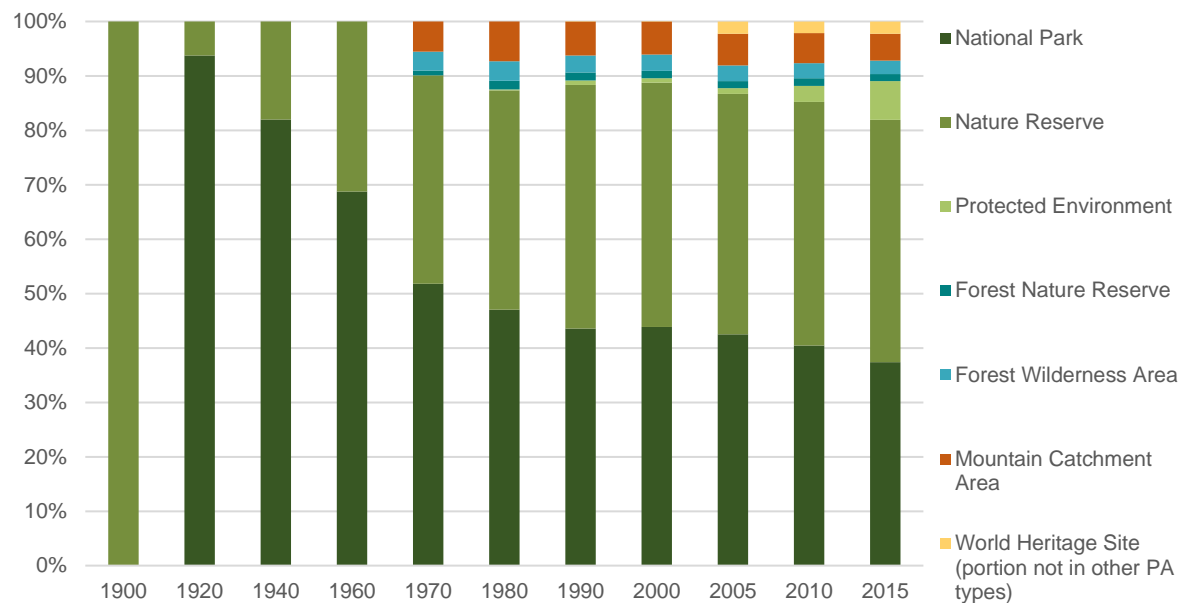
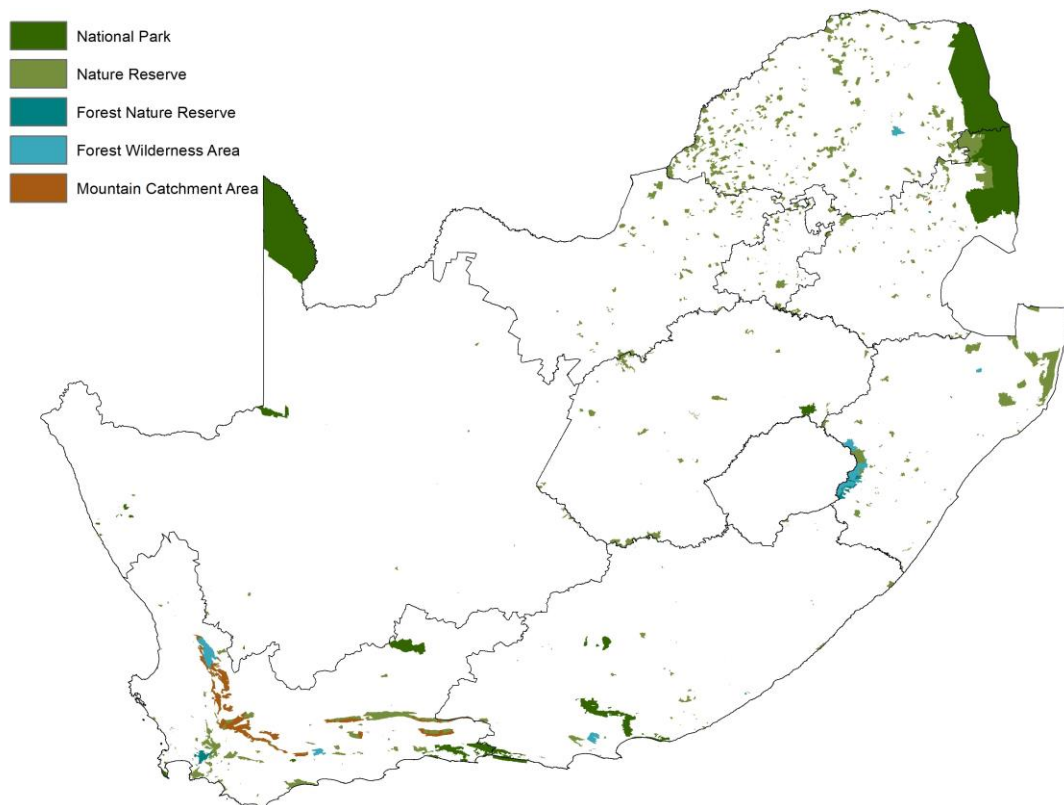
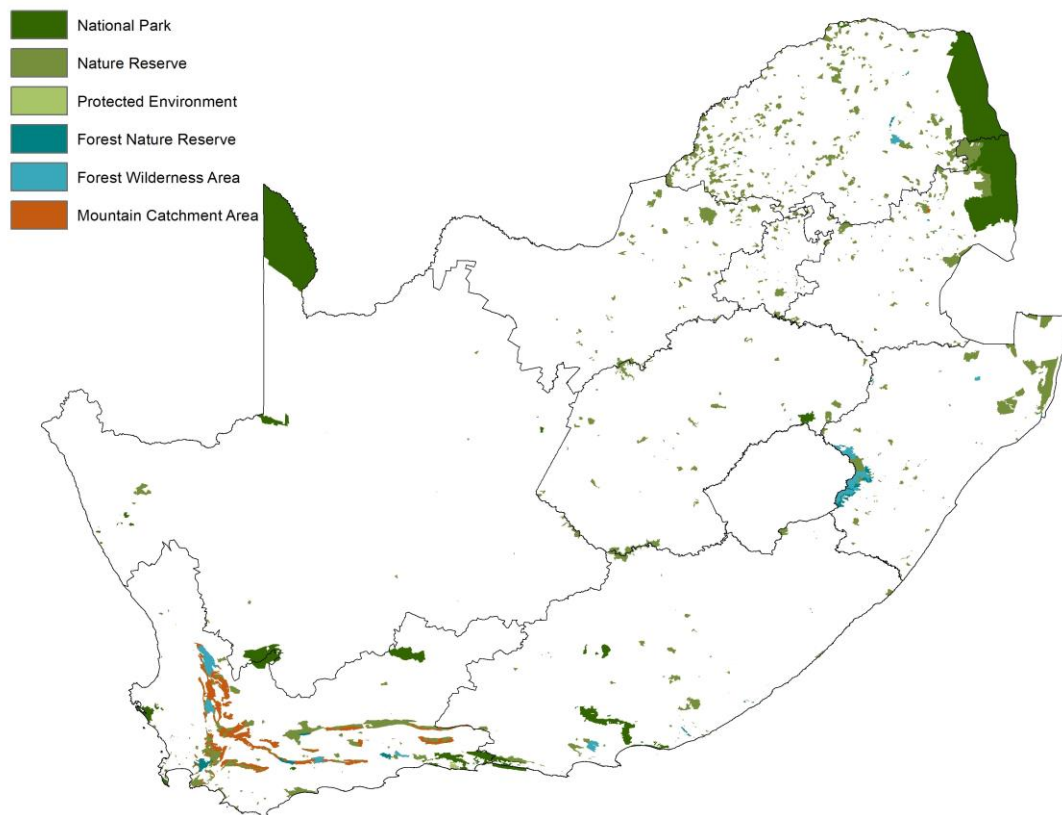


Figure 6. Land-based protected areas in 1980, based on declaration dates in the South African Protected Areas Database.



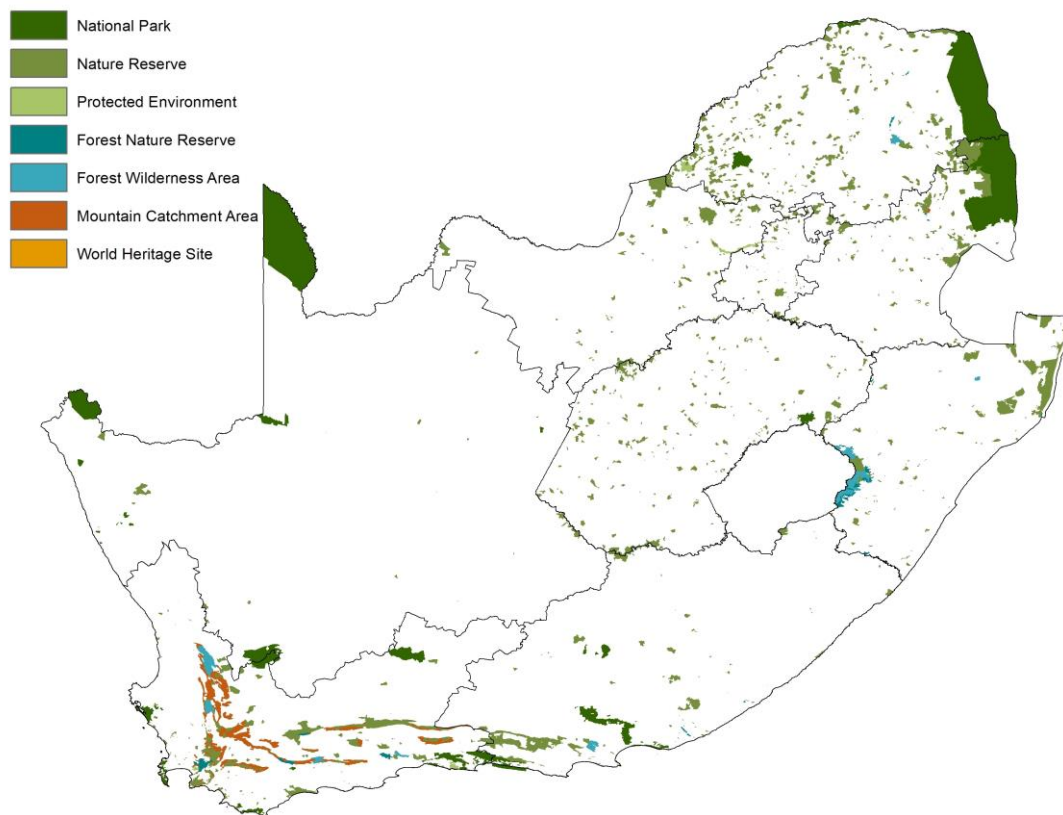
* Note that World Heritage Sites show only the portion not in other protected area types.

Figure 7. Land-based protected areas in 1990, based on declaration dates in the South African Protected Areas Database.



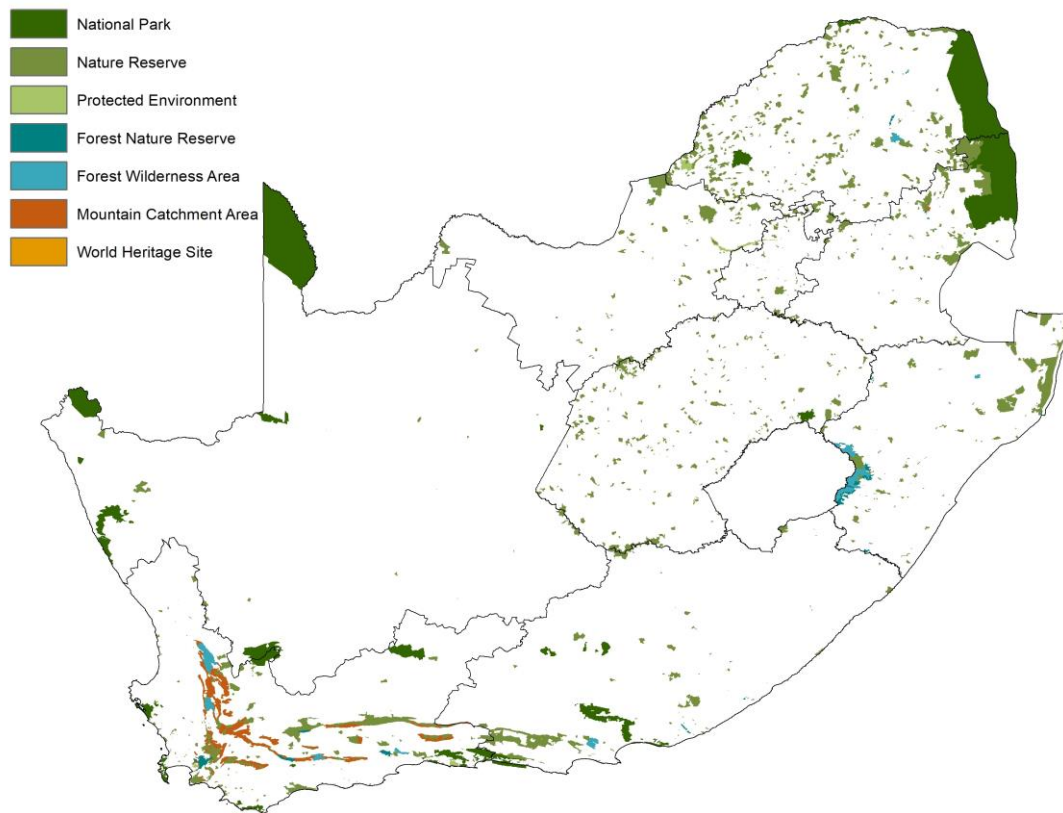
* Note that World Heritage Sites show only the portion not in other protected area types.

Figure 8. Land-based protected areas in 2000, based on declaration dates in the South African Protected Areas Database.



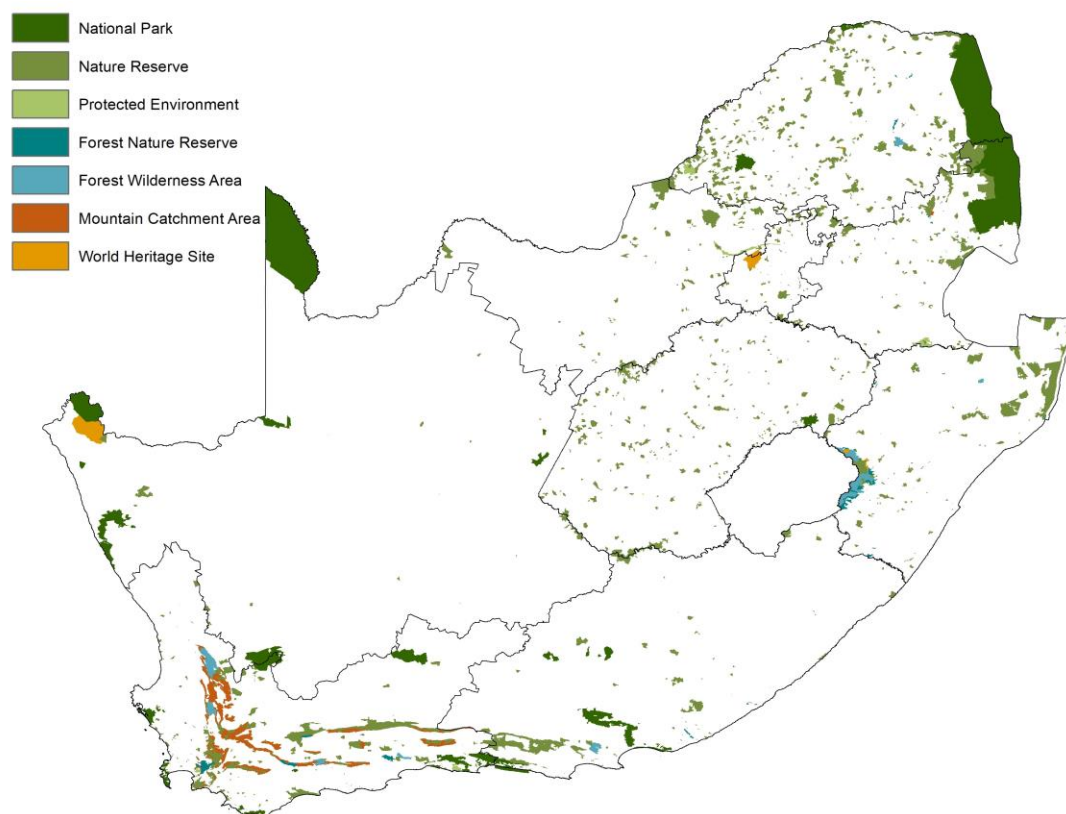
* Note that World Heritage Sites show only the portion not in other protected area types.

Figure 9. Land-based protected areas declared in 2005, based on declaration dates in the South African Protected Areas Database.



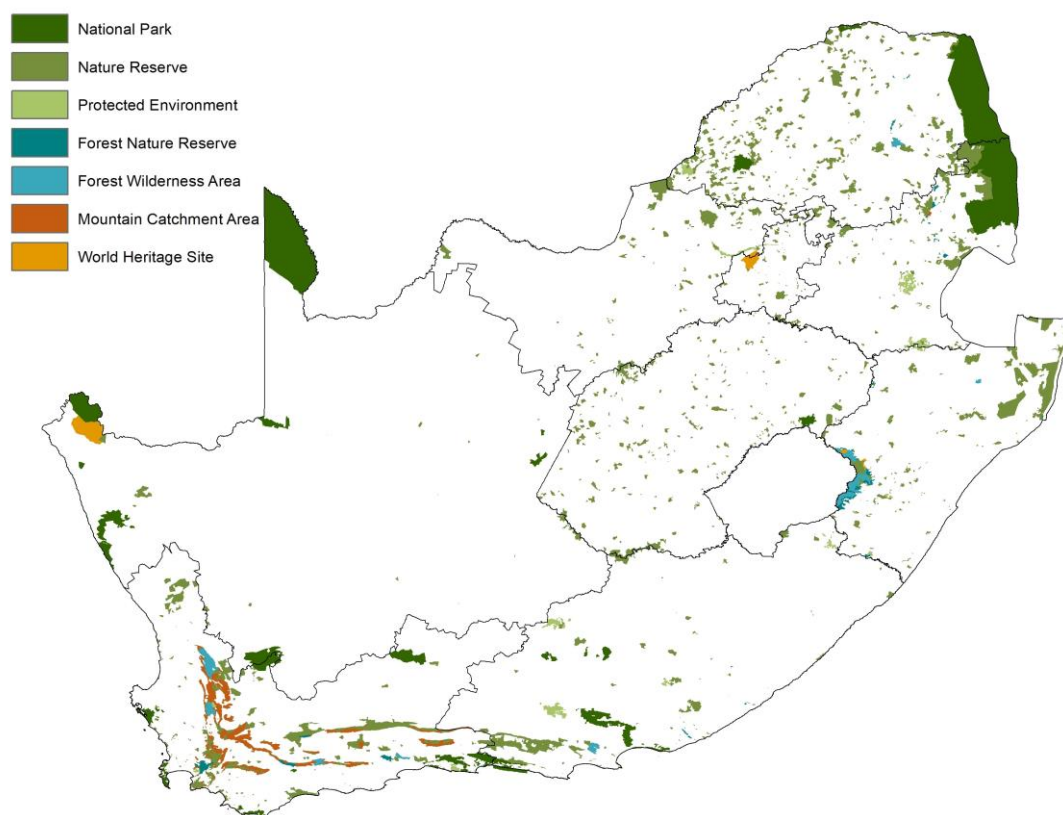
* Note that World Heritage Sites show only the portion not in other protected area types.

Figure 10. Land-based protected areas in 2010, based on declaration dates in the South African Protected Areas Database.



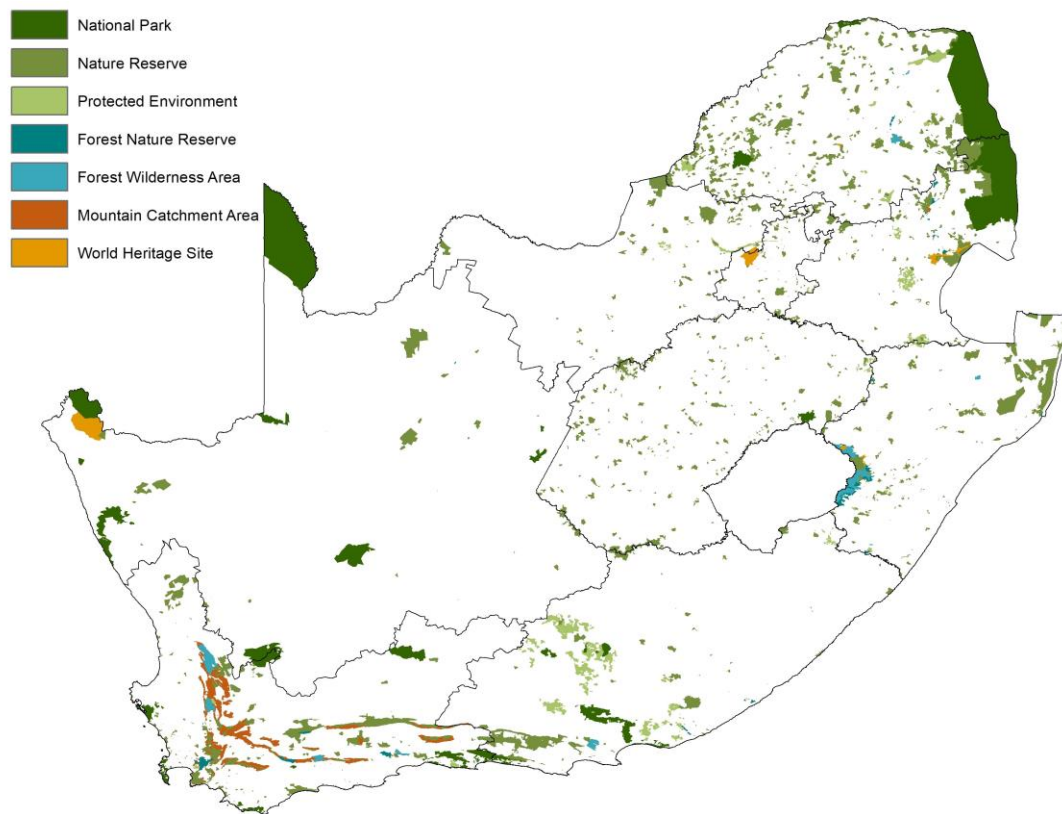
* Note that World Heritage Sites show only the portion not in other protected area types.

Figure 11. Land-based protected areas in 2015, based on declaration dates in the South African Protected Areas Database.



* Note that World Heritage Sites show only the portion not in other protected area types.

Figure 12. Land-based protected areas in 2020, based on declaration dates in the South African Protected Areas Database.



* Note that World Heritage Sites show only the portion not in other protected area types.

3.2 South Africa's World Heritage Sites

South Africa has 10 World Heritage Sites inscribed on the World Heritage List. Appendix 2 includes a description of the World Heritage Sites in South Africa.

As noted in Section 1, there are overlaps between World Heritage Sites and other types of protected areas. In the main protected area extent account table shown in Table 2, only the portions of World Heritage Sites that occur outside other types of protected areas appear, which means that the full extent of World Heritage Sites is not evident. The table below shows the full extent of World Heritage Sites in the protected area dataset and an analysis of the overlaps with other types of protected areas.

Cape Floral Region Protected Areas World Heritage Site and Mapungubwe Cultural Landscape World Heritage Site are fully protected as other types of protected areas, the majority of which is Nature Reserve. iSimangaliso Wetland Park is also almost fully protected as a Nature Reserve and Forest Nature Reserve. Just over 50,0% of the Richtersveld Cultural and Botanical Landscape World Heritage Site is protected as National Park and Nature Reserve. But for Barberton Makhonjwa Mountains, Fossil Hominid Sites of SA and Maloti-Drakensberg Park World Heritage Sites, less than a quarter of their extent in the protected area dataset overlaps with another type of protected area. Robben Island World Heritage Site is declared only as a World Heritage Site.

There are two World Heritage Sites, Vredefort and #Khomani Cultural Landscape, that do not currently appear in the protected area dataset. The #Khomani Cultural Landscape World Heritage Site covers the entire Kalahari Gemsbok National Park and also forms part of the Kgalagadi Transfrontier Park, which is bordered by Botswana in the east and Namibia in the west (Republic of South Africa [RSA], 2020). The recording of these two World Heritage Sites in SAPAD will be investigated in future iterations of the accounts.

Table 6. World Heritage Sites and their spatial overlap with other types of protected areas in 2020, in hectares and as a proportion of the World Heritage Site area, based on the South African Protected Areas Database.⁶

World Heritage Site included in the protected area dataset		National Park	Nature Reserve	Protected Environment	Forest Nature Reserve	Forest Wilderness Area	Mountain Catchment Area	World Heritage Site (portion not in other protected area types)	Total World Heritage Site area (ha) in the protected area dataset	Proportion protected as another type of protected area
Barberton Makhonjwa Mountains	ha		5 662					38 960	44 622	12,7%
	%		12,7%					87,3%		
Cape Floral Region Protected Areas	ha	155 061	704 059		54 208	135 253	18 669		1 067 250	100,0%
	%	14,5%	66,0%		5,1%	12,7%	1,7%	0,0%		
Fossil Hominid Sites of SA	ha		9 466					55 891	65 357	14,5%
	%		14,5%					85,5%		
iSimangaliso Wetland Park	ha		220 147		1 515			766	222 428	99,7%
	%		99,0%		0,7%			0,3%		
Maloti-Drakensberg Park	ha		51 021		48 729	118 017		14 659	232 426	93,7%
	%		22,0%		21,0%	50,8%		6,3%		
Mapungubwe Cultural Landscape	ha	26 078	39 296						65 374	100,0%
	%	39,9%	60,1%					0,0%		
Richtersveld Cultural and Botanical Landscape	ha	170 289	10 859					142 460	323 608	56,0%
	%	52,6%	3,4%					44,0%		
Robben Island	ha							467	467	0,0%
	%							100,0%		

⁶ The extent of World Heritage Sites in SAPAD sometimes differs from the area reported on the UNESCO website.

4 KEY FINDINGS FOR PROVINCES

This section presents key findings from the accounts for protected areas by province, using the same 11 accounting periods and the same seven types of protected areas as in the national protected area extent account. The account tables for provinces are found in Appendix 3.

The contribution to the protected area estate has differed substantially across provinces and across time periods. The growth of the protected area estate by province over the period 1900 to 2020 is shown in Figure 13, Figure 14 and Figure 15, for all types of protected areas combined, based on declaration dates in SAPAD. Table 7 and Figure 16 show a breakdown of the composition of the protected area estate in each province by protected area type in 2020.

A discussion of some of the key findings per province follows after the figures and table. The key findings have largely been drawn from the four accounting periods since 2000. For reasons discussed in Section 2.1 and Section 3 relating to uncertainty about the historical declaration dates in the protected area dataset, caution should be given to drawing findings from the accounting periods prior to 2000.

Figure 13. Cumulative extent of the protected area estate by province, reflecting the 11 accounting periods from 1900 to 2020 and based on declaration dates in the South African Protected Areas Database, in hectares.

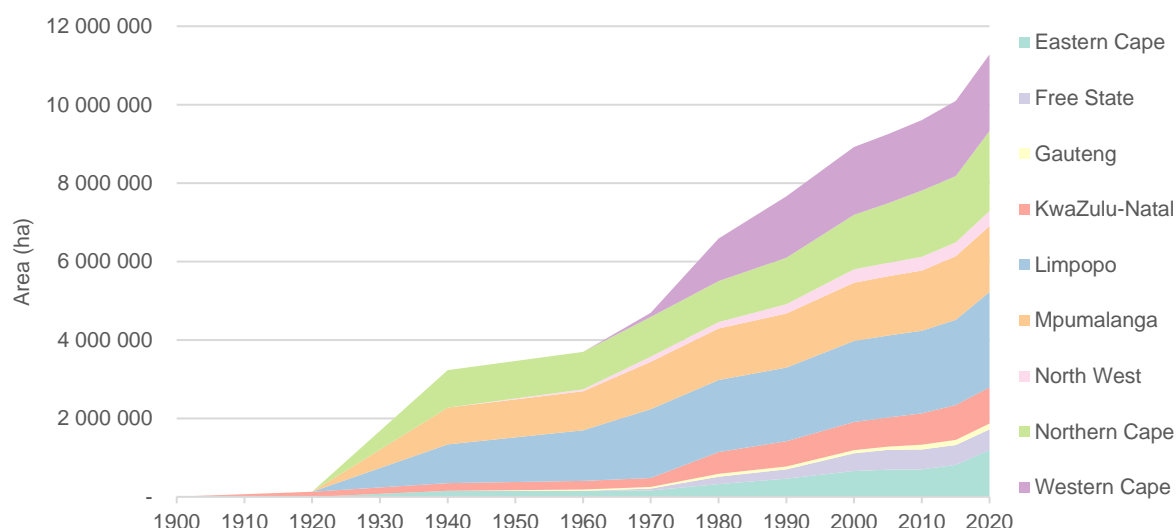


Figure 14. Cumulative extent of the land-based protected area estate in each province, reflecting the 11 accounting periods from 1900 to 2020 and based on declaration dates in the South African Protected Areas Database, in hectares, all shown on the same scale.

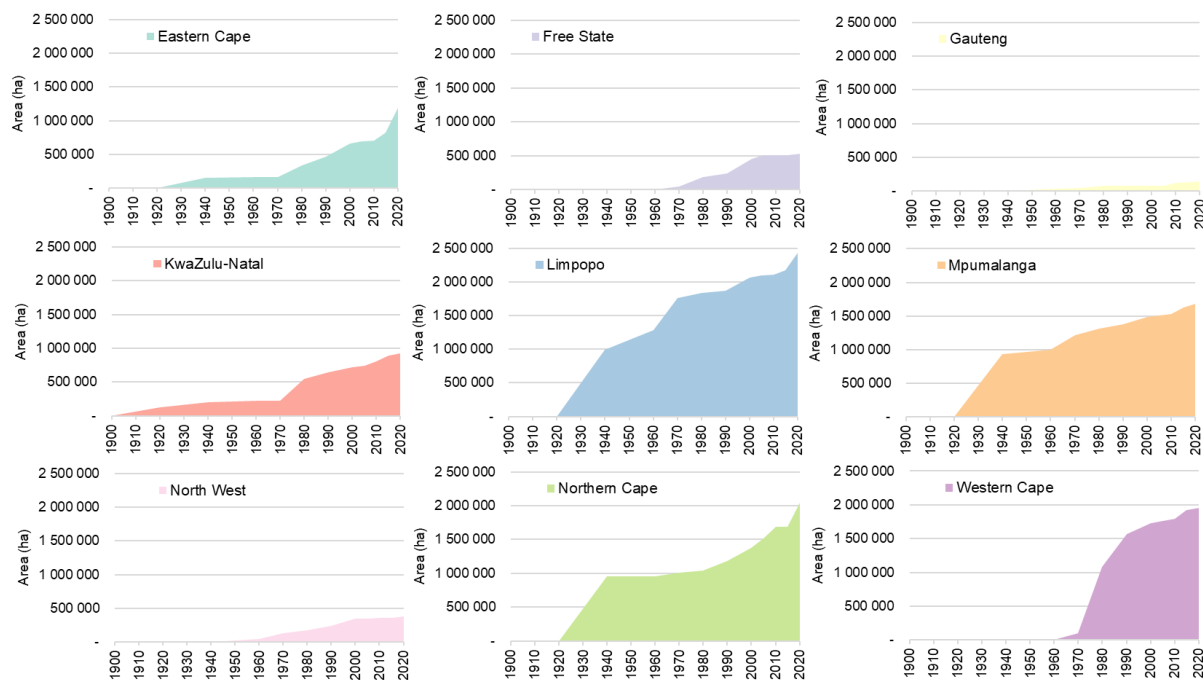


Figure 15. Cumulative extent of the land-based protected area estate in each province, reflecting the 11 accounting periods from 1900 to 2020 and based on declaration dates in the South African Protected Areas Database, as a percentage of the total provincial area, all shown on the same scale.

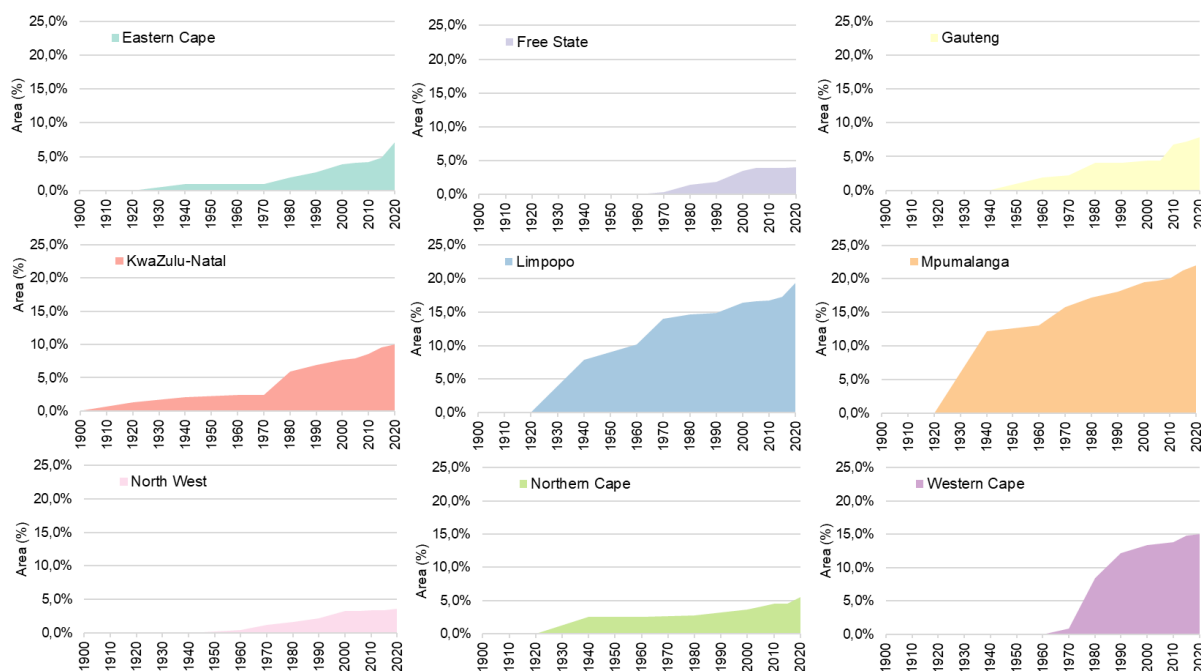
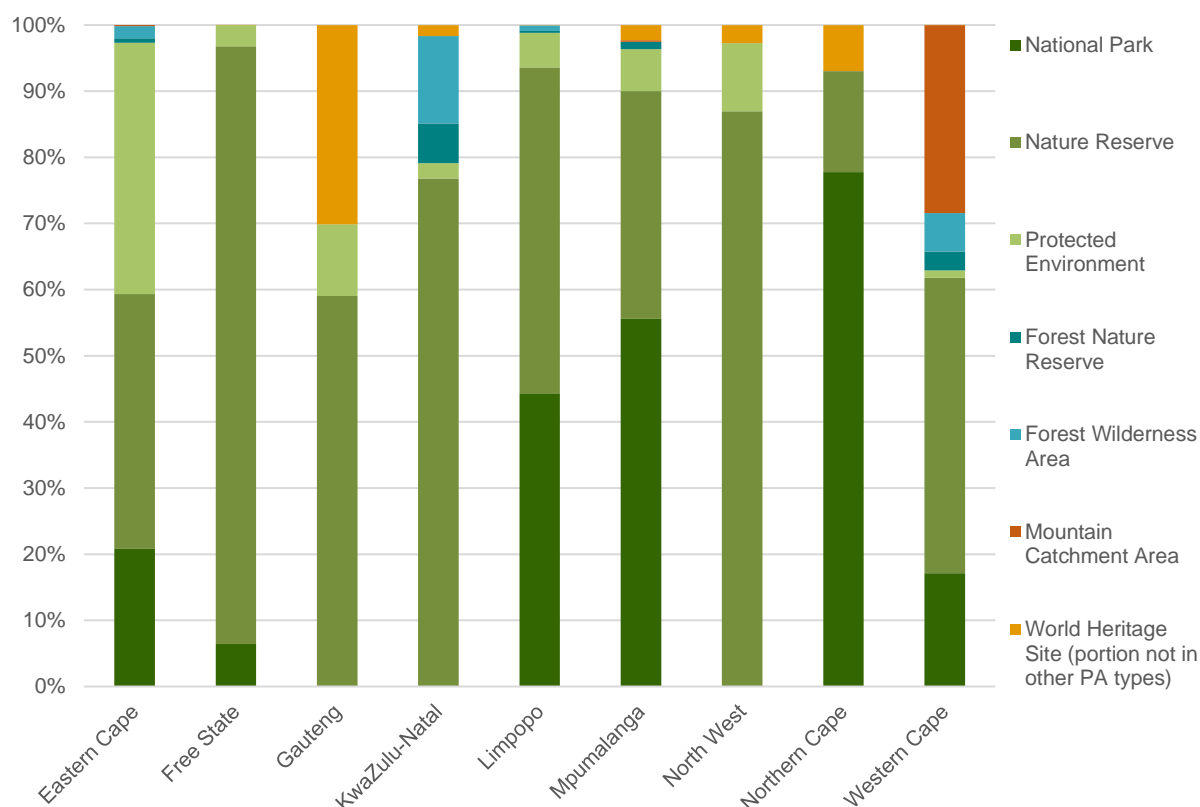


Table 7. Extent of the protected area estate by type of protected area and by province in 2020, in hectares and as a proportion of the protected area estate in each province, based on the South African Protected Areas Database.

Province	Units	National Park	Nature Reserve	Protected Environment	Forest Nature Reserve	Forest Wilderness Area	Mountain Catchment Area	World Heritage Site*	Total area of province protected (ha)	Total area of the province	Proportion of province protected (%)
Eastern Cape	Area protected (ha)	248 659	460 338	454 002	8 181	21 747	2 145	-	1 195 072	16 884 228	7,1%
	Proportion of area protected (%)	20,8%	38,5%	38,0%	0,7%	1,8%	0,2%	0,0%			
Free State	Area protected (ha)	34 000	475 823	16 756	-	-	-	113	526 692	12 982 488	4,1%
	Proportion of area protected (%)	6,5%	90,3%	3,2%	0,0%	0,0%	0,0%	0,0%			
Gauteng	Area protected (ha)	30	84 559	15 504	-	-	-	43 186	143 279	1 817 814	7,9%
	Proportion of area protected (%)	0,0%	59,0%	10,8%	0,0%	0,0%	0,0%	30,1%			
KwaZulu-Natal	Area protected (ha)	-	713 825	21 553	55 982	122 825	-	15 310	929 495	9 329 945	10,0%
	Proportion of area protected (%)	0,0%	76,8%	2,3%	6,0%	13,2%	0,0%	1,6%			
Limpopo	Area protected (ha)	1 077 278	1 196 606	127 048	7 096	19 300	-	2 208	2 429 536	12 574 338	19,3%
	Proportion of area protected (%)	44,3%	49,3%	5,2%	0,3%	0,8%	0,0%	0,1%			
Mpumalanga	Area protected (ha)	935 704	577 554	106 519	18 426	-	3 671	38 959	1 680 833	7 649 527	22,0%
	Proportion of area protected (%)	55,7%	34,4%	6,3%	1,1%	0,0%	0,2%	2,3%			
North West	Area protected (ha)	-	332 328	39 429	-	-	-	10 494	382 251	10 487 080	3,6%
	Proportion of area protected (%)	0,0%	86,9%	10,3%	0,0%	0,0%	0,0%	2,7%			
Northern Cape	Area protected (ha)	1 589 198	311 012	-	656	-	-	142 462	2 043 328	37 285 988	5,5%
	Proportion of area protected (%)	77,8%	15,2%	0,0%	0,0%	0,0%	0,0%	7,0%			
Western Cape	Area protected (ha)	334 038	870 866	22 207	55 450	113 562	553 612	463	1 950 198	12 955 045	15,1%
	Proportion of area protected (%)	17,1%	44,7%	1,1%	2,8%	5,8%	28,4%	0,0%			

* Note that World Heritage Sites show only the portion that does not overlap with other protected area types (refer to Section 1.2 and Section 2.1).

Figure 16. Composition of the protected area estate by protected area type, for each province in 2020, based on the South African Protected Areas Database.



4.1 Eastern Cape province

Eastern Cape makes up 13,8% of the South African mainland, and by the end of 2020, 1 195 072 ha had been protected. This amounted to 7,1% of the province protected at the end of 2020, which had increased from 3,9% at the end of 2000. This was the second largest relative increase in the proportion of a province protected over this 20-year period (Gauteng had the largest relative increase).

Net change as a proportion of opening stock over the four accounting periods since 2000 indicates relatively high net increases of 16,7% from 2010 to 2015 and 46,5% from 2015 to 2020. In both periods, the majority of this increase was due to the declaration of Protected Environments. Large additions included Mountain Zebra-Camdeboo Protected Environment (275 003 ha), Indalo Protected Environment (72 168 ha), Compassberg Protected Environment (28 751 ha) and Cedarville Protected Environment (15 146 ha).

At the end of 2020, the protected estate in Eastern Cape was made up of 38,5% Nature Reserve, 38,0% Protected Environment, 20,8% National Park, 1,8% Forest Wilderness Area, 0,7% Forest Nature Reserve, and 0,2% Mountain Catchment Area. National Parks in Eastern Cape include Addo Elephant National Park (133 364 ha), Mountain Zebra National Park (28 528 ha), and Camdeboo National Park (19 029 ha).

4.2 Free State province

Free State makes up 10,6% of the South African mainland, and by the end of 2020, 526 692 ha had been protected. This amounted to 4,1% of the province protected at the end of 2020, which had increased from 3,5% protected at the end of 2000.

Net change as a proportion of opening stock over the four accounting periods since 2000 indicates an 11,2% net increase from 2000 to 2005, and almost no further increase until 2015 when there was a 4,4% increase from 2015 to 2020 with the declaration of 16 756 ha of Protected Environment and 5 480 ha of Nature Reserve.

At the end of 2020, the protected area estate in Free State was made up of 90,3% Nature Reserve, 6,5% National Park, and 3,2% Protected Environment. Golden Gate National Park is the only National Park in the Free State province. It is only in the most recent accounting period from 2015 to 2020 that Protected Environments were declared, including the declaration of the Sneeuwberg Protected Environment (16 757 ha) which lies within a strategic water source area.

4.3 Gauteng province

Gauteng is South Africa's smallest province occupying only 1,5% of the South African mainland. At the end of 2020 the size of the protected area estate was 143 279 ha, occupying 7,9% of the province, having increased from 4,5% at the end of 2000. This was the largest relative increase in the proportion of a province protected over this 20-year period.

The Gauteng protected area estate at the end of 2020 was made up of 59,0% Nature Reserve, 30,1% portions of World Heritage Site not in other protected areas, 10,8% Protected Environment, and less than 1,0% National Park. The declaration of the Fossil Hominid Sites of South Africa World Heritage Site in 2007 resulted in the protected area estate increasing from 4,5% of Gauteng to 6,8% at the end of 2010. As discussed in Section 3.2, 14,5% of the World Heritage Site overlaps with other types of PA. Gauteng has one National Park, Groenkloof National Park (30 ha). Protected areas established in the 2015 to 2020 accounting period included 10 250 ha of Protected Environment (such as Klipkraal and Devon Protected Environments) and 1 872 ha of Nature Reserve.

4.4 KwaZulu-Natal province

KwaZulu-Natal makes up 7,6% of the South African mainland, and by the end of 2020 the protected area estate was 929 495 ha or 10,0% of the province. The protected area estate in the province had increased from 7,7% at the end of 2000.

The KwaZulu-Natal protected area estate at the end of 2020 was made up of 76,8% Nature Reserve, 13,2% Forest Wilderness Area, 6,0% Forest Nature Reserve, 2,3% Protected Environment, and 1,6% World Heritage Site not in other protected area types. As discussed in Section 3.2, there is a large spatial overlap of iSimangaliso Wetland Park and Maloti-Drakensberg Park World Heritage Site with other types of protected area. Nearly 72,0% of the Maloti-Drakensberg Park World Heritage Site is Forest Nature Reserve and Forest Wilderness Area declared prior to 2000, and the majority of iSimangaliso Wetland Park (99,0%) is declared as Nature Reserve.

Net change as a proportion of opening stock over the four accounting periods since 2000 indicates a net increase above 3,3%, with the largest increase in extent between 2010 and 2015. Over the 20 years since 2000, Nature Reserves have made the largest contribution to the protected area estate, followed by Protected Environments. Large protected areas declared in the decade 2010 to 2020 include Munya-wana Conservancy (20 311 ha), Hluhluwe-Imfolozi Park Nature Reserve (12 190 ha), Somkhanda Game Reserve (11 144 ha), and Pongola Bush Protected Environment (9 245 ha).

As discussed, caution should be given to drawing findings from the accounting periods prior to 2000. Much earlier declarations in KwaZulu-Natal are known (Brett, 2019) than appear in SAPAD.

4.5 Limpopo province

Limpopo makes up 10,3% of the South African mainland, and at the end of 2020, 2 429 536 ha had been protected. This was the largest extent of protected area across all provinces and contributed 21,5% to the country's total protected area estate. The size of the protected area estate at the end of

2020 amounted to 19,3% of the province, having increased from 16,4% at the end of 2000. As in Mpumalanga, a large portion of the province's protected area estate is the Kruger National Park, which, having been established prior to 1940, meant that 7,8% of the province was protected early on.

Net change as a proportion of opening stock over the four accounting periods since 2000 indicates the net increase in the protected area estate (as a proportion of opening stock) was less than 3,0% across the accounting periods from 2000 to 2015, and then rose to 12,0% in the period 2015 to 2020 with the declaration of 260 353 ha. The increase was attributable to the declaration of 160 175 ha of Nature Reserves and 100 177 ha of Protected Environments. Large protected areas declared in this period included Mphaphuli Protected Environment (60 908 ha), De Hoop Dam Protected Environment (19 181 ha), Greater Makalali Nature Reserve (22 825 ha), and Thengwe Nature Reserve (21 971 ha).

The Limpopo province protected area estate at the end of 2020 was made up of 49,3% Nature Reserve, 44,3% National Park, 5,2% Protected Environment, and 0,8% Forest Wilderness Area.

4.6 Mpumalanga province

Mpumalanga is the second smallest province in South Africa and makes up 6,3% of the South African mainland. At the end of 2020 it was the province with the largest proportion protected, with 22,0% of the province protected. The protected area estate at the end of 2020 was 1 680 833 ha, having increased by nearly 200 000 ha since 2000.

The majority of the Mpumalanga protected area estate is the Kruger National Park (55,7%), established prior to 1940. Its declaration meant that by 1940, 935 704 ha (12,2%) of the province was formally protected. Since then, there have been regular additions with Nature Reserves making the second largest contribution to the expansion of the protected area estate, followed by Protected Environments.

Net change as a proportion of opening stock over the four accounting periods since 2000 indicates the net increase in the protected area estate (as a proportion of opening stock) was greater in the period 2010 to 2020 than it was from 2000 to 2010. The net increase since 2010 was largely attributable to the declaration of just over 80 000 ha of Protected Environment and nearly 39 000 ha of World Heritage Site not in other protected areas. Large Protected Environments declared since 2010 included Chrissiesmeer Protected Environment (57 502 ha), Greater Lakenvlei Protected Environment (14 126 ha), and part of KwaMandlangampisi Protected Environment (26 053 ha spread across Mpumalanga and KwaZulu-Natal). These are also examples of contract protected areas established through biodiversity stewardship. As discussed in Section 3.2, the World Heritage Site extent recorded in the accounts is the portion not protected in other types of protected area. In this case, 12,6% of Barberton Makhonjwa Mountains World Heritage Site overlaps with Nature Reserves.

The Mpumalanga province protected area estate at the end of 2020 was made up of 55,5% National Park, 34,4% Nature Reserve, 6,3% Protected Environment, 2,3% World Heritage Site not in other protected areas, 1,1% Forest Nature Reserve, and 0,2% Mountain Catchment Area.

As discussed, caution should be given to drawing findings from the accounting periods prior to 2000. Much earlier declarations in Mpumalanga are known (Carruthers, 1995) than appear in SAPAD.

4.7 North West province

North West makes up 8,6% of the South African mainland, and at the end of 2020, 382 251 ha was protected. The North West province protected area estate at the end of 2020 was 3,6% of the province, having increased from 3,3% at the end of 2000.

Net change as a proportion of opening stock over the four accounting periods since 2000 indicates that there was no increase in the protected area estate between 2000 and 2005 and between 2010 and 2015. 10 494 ha was added with the declaration of the Fossil Hominid Sites of SA World Heritage Site in the 2010 and 2015 accounting period. The greatest net increase since 2000 was from 2015 to 2020 with the declaration of 16 312 ha of Nature Reserve and 11 683 ha of Protected Environment.

The North West protected area estate at the end of 2020 was made up of 86,9% Nature Reserve, 10,3% Protected Environment, and 2,7% portions of World Heritage Site not in other protected areas. The North West province protected area estate includes no National Parks. Despite its name, Pilanesberg National Park is a Nature Reserve and contributes 58 933 ha. Other large Nature Reserves contributing to the protected area estate in the North West province include Molopo Nature Reserve (24 098 ha) and Madikwe Game Reserve (58 933 ha).

4.8 Northern Cape province

Northern Cape makes up 30,6% of the South African mainland, and at the end of 2020, 2 043 328 ha was protected. This was the second largest extent of protected area of all the provinces (Limpopo having the largest extent), and while protected areas in Northern Cape contributed 18,1% to the country's total protected area estate, these amounted to only 5,5% of the province.

The Northern Cape province protected area estate increased from 3,7% in 2000. The net increase in the Northern Cape protected area estate was approximately 10,0% over the 20 years since 2000. Large additions to the protected area estate in this period included the declaration of Meerkat National Park (134 956 ha), Tswalu Kalahari Nature Reserve (111 229 ha), Glen Lyon Nature Reserve (55 213 ha) and Marietjie van Niekerk Nature Reserve (20 486 ha).

The Northern Cape protected area estate at the end of 2020 was made up of 77,8% National Park, 15,2% Nature Reserve, and 7,0% portions of World Heritage Sites not in other protected areas. Northern Cape has 77,8% of its protected area estate made up of National Parks, the highest proportion of all the provinces. These include Kalahari Gemsbok, Augrabies, Richtersveld, Tankwa-Karoo, Namaqua, Mokala National Parks and the recently declared Meerkat National Park. There are two World Heritage Sites in Northern Cape. The Richtersveld Cultural and Botanical World Heritage Site overlaps with other protected areas by 56,0%. The #Khomani Cultural Landscape World Heritage Site covers the entire Kalahari Gemsbok National Park and also forms part of the Kgalagadi Transfrontier Park (RSA, 2020). Based on declaration dates in SAPAD, the Kalahari Gemsbok National Park was the first protected area proclaimed in Northern Cape in 1931. It contributed over 957 000 ha to the province's protected area account (or 2,6% of the province).

4.9 Western Cape province

Western Cape makes up 10,6% of the South African mainland, and by the end of 2020, 1 950 198 ha was protected. The protected area extent was 15,1% of the province, having increased from 13,4% at the end of 2000.

Net change as a proportion of opening stock over the four accounting periods since 2000 indicates that PA expansion was relatively rapid from 2010 to 2015, over which period the net change was 7,2% compared with under 2,0% in the other accounting periods. The declaration of 123 60 ha of Nature Reserve in this period contributed to this along with 5 179 ha of Protected Environment. A large Nature Reserve declared in this period was Knersvlakte Nature Reserve (90 056 ha).

Western Cape is the only province protected by all types of protected area, including the small Special Nature Reserve discussed in Section 3.1 which does not appear in the account tables. The four most dominant types of protected area that made up the protected area estate in Western Cape by the end of 2020 were: Nature Reserve (which made up 44,7% of the province's protected area), Mountain Catchment Area (which made up 28,4% of the protected area estate – the largest of any of the provinces), National Park (17,1%), and Forest Wilderness Area (5,8%). The portion of World Heritage Site not in other protected area types is negligible because there is a high degree of overlap in other types of protected area with the Cape Floristic Region Protected Areas World Heritage Site, as discussed in Section 3.2.

As discussed, caution should be given to drawing findings from the accounting periods prior to 2000. Much earlier declarations in Western Cape are known (Van Wilgen et al, 2016) than appear in SAPAD.

5 KEY FINDINGS FOR BIOMES

This section presents key findings from the accounts for protected areas by biome, using the same 11 accounting periods and the same seven types of protected areas as in the national protected area extent account (Section 3) and in the provincial protected area extent account (Section 4). The account tables for biomes are found in Appendix 4.

The contribution to the protected area estate has differed substantially across biomes and across time periods. Historically, a range of factors influenced where and how protected areas were established and expanded, with the location of protected areas often biased towards land unsuitable for agriculture or other purposes or determined by recreation and tourism considerations. This means that the protected area estate tends to protect some ecosystem types and biomes better than others. The NPAES 2008 was the first time there was comprehensive national science-based guidance to inform the expansion of the protected area estate. The NPAES 2008 and 2016 emphasised the need for expansion and consolidation of the protected area network to focus on under-protected ecosystem types as well as to support ecological sustainability more broadly. Progress has been made towards a more fully representative land-based protected area estate that includes ecosystem types from all South Africa's terrestrial biomes, as is shown in these accounts.

The growth of the protected area estate by biome over the period 1900 to 2020 is shown in Figure 17, Figure 18 and Figure 19 for all types of protected areas combined, based on declaration dates in SAPAD. Table 8 provides the extent of land-based protected areas and the proportion of the total area protected at each accounting period by biome from 1900 to 2020. Table 8 and Figure 20 show a breakdown of the composition of the protected area estate in each biome by protected area type in 2020. A discussion of some of the key findings per biome follows after the figures and tables. The key findings have largely been drawn from the four accounting periods since 2000. For reasons discussed in Section 2.1 and Section 3 relating to uncertainty about the historical declaration dates in the protected area dataset, caution should be given to drawing findings from the accounting periods prior to 2000.

As mentioned in Section 1.4, the NBA includes an assessment of the protection level of each of South Africa's ecosystem types in relation to ecosystem-specific targets for protection, to derive an Ecosystem Protection Level indicator. Such an assessment is beyond the scope of these accounts. However, the accounts do include information on the proportion of each terrestrial ecosystem type included in the protected area estate, which is summarised in Appendix 5 for the accounting periods from 2000 to 2020.

Figure 17 Cumulative extent of the protected area estate by biome, reflecting the 11 accounting periods from 1900 to 2020 and based on declaration dates in the South African Protected Areas Database, in hectares.

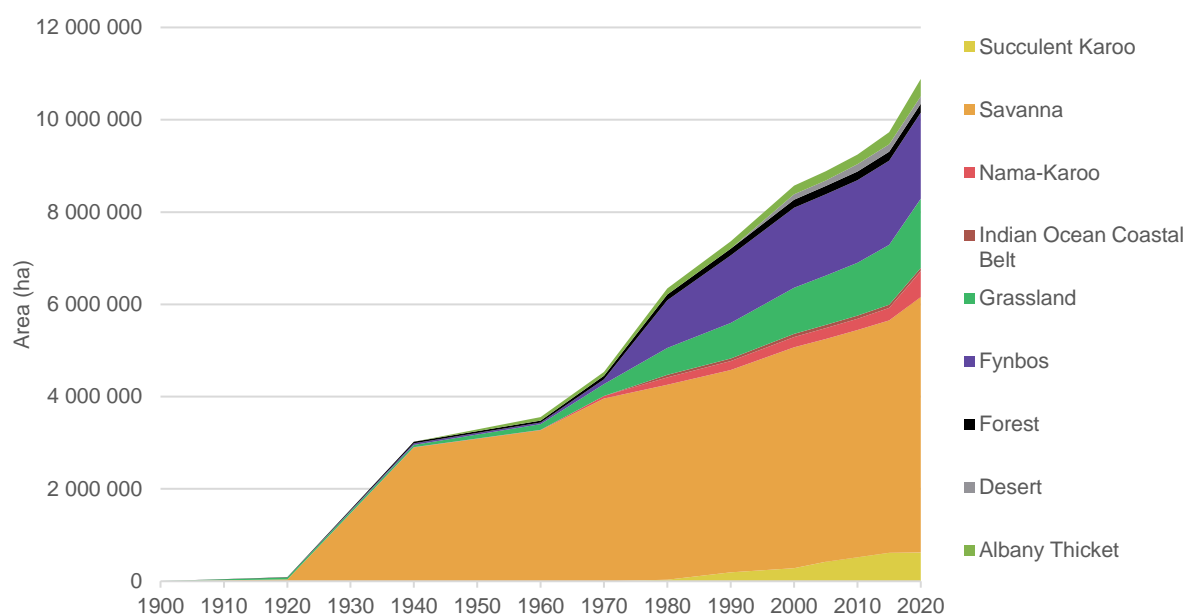


Figure 18. Cumulative extent of the land-based protected area estate in each biome, reflecting the 11 accounting periods from 1900 to 2020 and based on declaration dates in the South African Protected Areas Database, in hectares, all shown on the same scale.

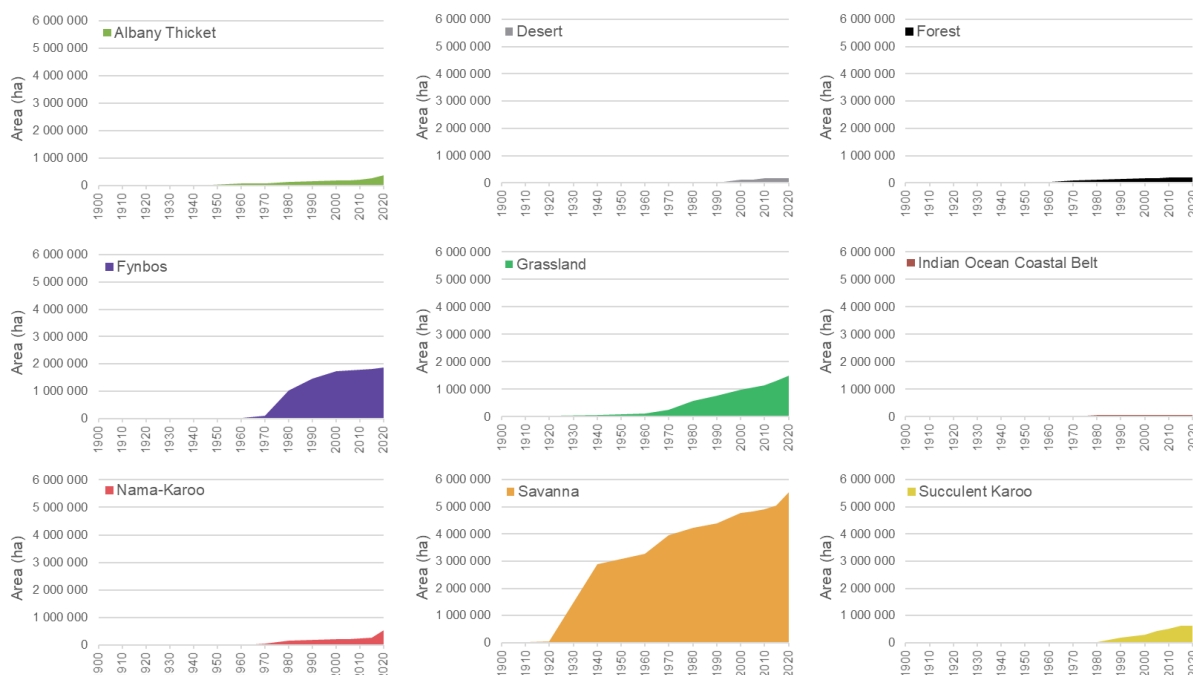


Figure 19. Cumulative extent of the land-based protected area estate in each biome, reflecting the 11 accounting periods from 1900 to 2020 and based on declaration dates in the South African Protected Areas Database, as a percentage of the total biome area, all shown on the same scale.

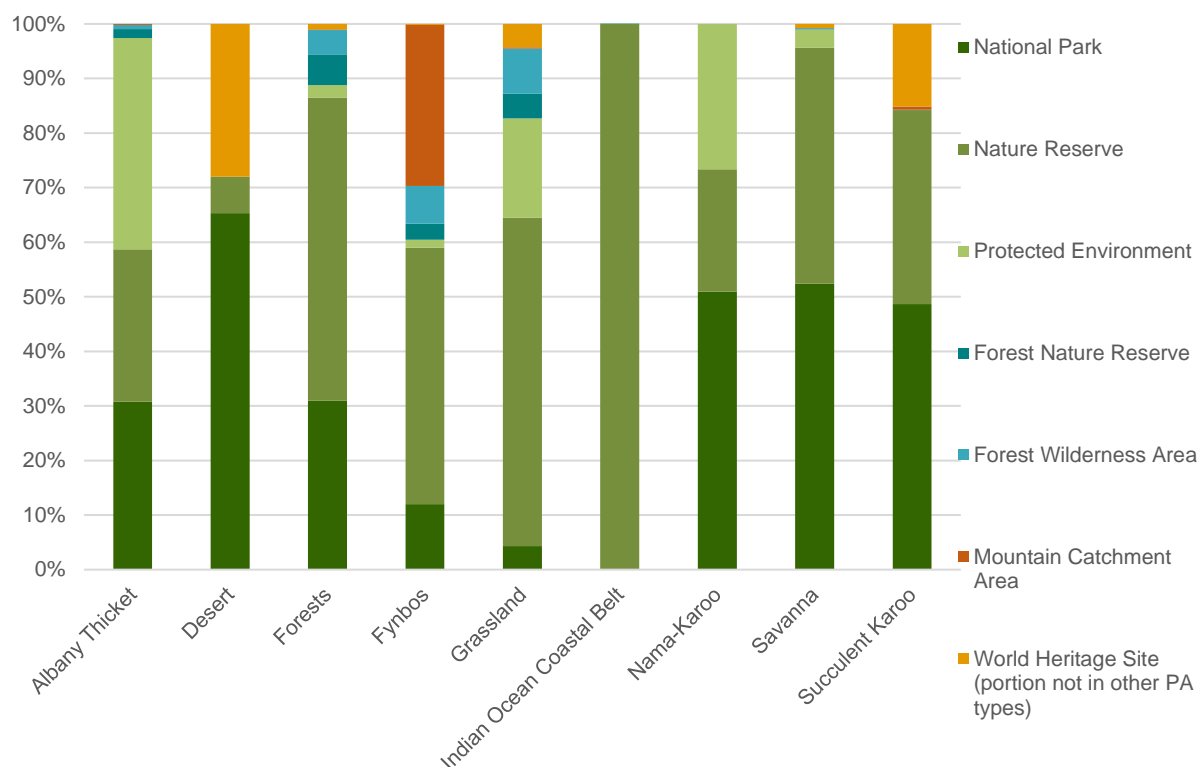


Table 8. Extent of the land-based protected area estate by type of protected area and by biome in 2020, in hectares and as a proportion of the protected area estate in each biome, based on the South African Protected Areas Database.

Biomes	Units	National Park	Nature Reserve	Protected Environment	Forest Nature Reserve	Forest Wilderness Area	Mountain Catchment Area	World Heritage Site*	Total area of biome protected (ha)	Total area of biome	Proportion of biome protected (%)
Albany Thicket	Area protected (ha)	116 146	105 213	145 896	6 357	2 763	707	0	377 082	2 912 590	12,9%
	Proportion of area protected (%)	30,8%	27,9%	38,7%	1,7%	0,7%	0,2%	0,0%			
Desert	Area protected (ha)	104 634	10 798	0	0	0	0	44 814	160 246	716 966	22,4%
	Proportion of area protected (%)	65,3%	6,7%	0,0%	0,0%	0,0%	0,0%	28,0%			
Forests	Area protected (ha)	60 574	108 866	4 391	11 054	8 740	283	1 912	195 820	488 385	40,1%
	Proportion of area protected (%)	30,9%	55,6%	2,2%	5,6%	4,5%	0,1%	1,0%			
Fynbos	Area protected (ha)	223 700	876 400	27 666	55 077	129 269	549 513	3 909	1 865 534	8 321 604	22,4%
	Proportion of area protected (%)	12,0%	47,0%	1,5%	3,0%	6,9%	29,5%	0,2%			
Grassland	Area protected (ha)	64 522	900 812	272 150	67 789	123 445	3 320	64 443	1 496 481	32 780 417	4,6%
	Proportion of area protected (%)	4,3%	60,2%	18,2%	4,5%	8,2%	0,2%	4,3%			
Indian Ocean Coastal Belt	Area protected (ha)	0	72 139	0	7	0	0	0	72 146	1 143 546	6,3%
	Proportion of area protected (%)	0,0%	100,0%	0,0%	0,0%	0,0%	0,0%	0,0%			
Nama-Karoo	Area protected (ha)	282 880	124 697	147 866	0	0	0	0	555 443	24 828 214	2,2%
	Proportion of area protected (%)	50,9%	22,5%	26,6%	0,0%	0,0%	0,0%	0,0%			
Savanna	Area protected (ha)	2 905 326	2 394 965	181 004	4 484	11 392	313	43 821	5 541 305	39 132 802	14,2%
	Proportion of area protected (%)	52,4%	43,2%	3,3%	0,1%	0,2%	0,0%	0,8%			
Succulent Karoo	Area protected (ha)	301 943	220 748	0	0	162	3 613	94 023	620 489	8 366 177	7,4%
	Proportion of area protected (%)	48,7%	35,6%	0,0%	0,0%	0,0%	0,6%	15,2%			

* Note that World Heritage Sites show only the portion that does not overlap with other protected area types (refer to Section 1.2 and Section 2.1).

Figure 20. Composition of the protected area estate by protected area type, for each biome in 2020, based on the South African Protected Areas Database.



5.1 Albany Thicket biome

The Albany Thicket biome makes up 2,4% of the South African mainland, and by the end of 2020, 377 082 ha had been protected. The proportion of the Albany Thicket biome protected increased from 6,5% at the end of 2000 to 12,9% at the end of 2020, which means that the size of the protected area in this biome almost doubled between 2000 and 2020. Net change as a proportion of opening stock over the four accounting periods since 2000 indicates a high net increase in the size of the protected area estate from 2010 to 2020. This is largely attributable to the declaration of nearly 150 000 ha of Protected Environment.

At the end of 2020, the Albany Thicket biome was protected most by Protected Environments (38,7%), followed by National Park (30,8%), and Nature Reserves (27,9%). Indalo Protected Environment (72 168 ha), Baviaanskloof Nature Reserve and Addo Elephant National Park (133 364 ha) contribute to the protection of this biome.

5.2 Desert biome

The Desert biome makes up 0,6% of the South African mainland, and by the end of 2020, 160 246 ha had been protected. The proportion of the Desert biome protected increased from 16,0% at the end of 2000 to 22,4% at the end of 2020. Along with the Fynbos biome, the Desert biome has the second largest proportion of the biome protected.

The Desert biome was not protected until the end of the 2000 accounting period when 104 635 ha was declared as the Richtersveld National Park, which is part of the |Ais-|Ai-Richtersveld Transfrontier Park. At the end of 2010, the size of the protected area increased with the addition of 44 814 ha of the Richtersveld Cultural and Botanical Landscape World Heritage Site.

At the end of 2020, the Desert biome was protected most by National Park (65,3%), followed by World Heritage Site not in other protected areas (28,0%), and Nature Reserve (6,7%).

5.3 Forest biome

The Forest biome makes up 0,4% of the South African mainland, and by the end of 2020, 488 38 ha had been protected. The Forest biome is the most protected biome in mainland South Africa with 40,1% of the biome protected. It is also the smallest terrestrial biome and is naturally highly fragmented with many small non-contiguous patches across the country.

Net change as a proportion of opening stock over the four accounting periods since 2000 indicates that the net increase has slowed from the 2000 to 2005 accounting period. At the end of 2020, the Forest biome was protected by all types of protected areas with 55,6% protected by Nature Reserves, 30,9% by National Parks, 5,6% by Forest Nature Reserves, 4,5% by Forest Wilderness Areas, 2,2% by Protected Environment, 1,0% by portions of World Heritage Site not in other protected areas, and 0,1% by Mountain Catchment Area.

5.4 Fynbos biome

The Fynbos biome makes up 6,8% of the South African mainland and is unique to the Cape Floral Region biodiversity hotspot. At the end of 2020, 8 321 604 ha had been protected. The proportion of the Fynbos biome protected increased from 20,9% at the end of 2000 to 22,4% at the end of 2020. Along with the Desert biome, it has the second largest proportion protected.

Net change as a proportion of opening stock over the four accounting periods since 2000 indicates that the net increase was fairly consistent, with a slightly higher net increase in the decade 2010 to 2020. Nature Reserves contributed the most to this increase, followed by Protected Environments.

At the end of 2020, the Fynbos biome was protected by all types of protected areas with 47,0% Nature Reserve, 29,5% Mountain Catchment Area, 12,0% National Park, 6,9% Forest Wilderness Area, 3,0% Forest Nature Reserve, 1,5% Protected Environment, and 0,2% by portions of World Heritage Site not in other protected areas.

5.5 Grassland biome

The Grassland biome is the second largest biome in South Africa, occupying 26,9% of the country. At the end of 2020, 32 780 417 ha had been protected. The proportion of the Grassland biome protected increased from 3,0% at the end of 2000 to 4,6% at the end of 2020. In spite of having the second largest absolute increase in area protected, with 503 103 ha protected since 2000, the biome still had the second lowest proportion of biome protected at the end of 2020 (second to Nama-Karoo biome).

Net change as a proportion of opening stock over the four accounting periods since 2000 indicates an increasing trend in the net increase with more and more area being protected in each successive accounting period. The majority of the increases were due to declarations of Protected Environments such as Chrissiesmeer Protected Environment (57 502 ha), Greater Lakenvlei Protected Environment (14 126 ha), Sneeuwberg Protected Environment (16 757 ha) and KwaMandlangampisi Protected Environment (26 053 ha). These Protected Environments are examples of contract protected areas established through biodiversity stewardship and contribute to the protection of important water source areas.

At the end of 2020, the protected area estate in the Grassland biome was made up of 60,2% Nature Reserve, 18,2% Protected Environment, 8,2% Forest Wilderness Area, 4,5% Forest Nature Reserve, 4,3% National Park, 4,3% portions of World Heritage Site not in other protected areas, and 0,2% Mountain Catchment Area.

5.6 Indian Ocean Coastal Belt biome

The Indian Ocean Coastal Belt biome occupies 0,9% of land in a narrow strip along South Africa's sub-tropical east coast with unique natural features compared with the more upland areas. The area has been increasingly developed and many parts of the biome have been converted to built-up land and sugarcane cultivation.

At the end of 2020, 1 143 546 ha had been protected which amounts to 6,3% of the biome. The proportion of the Indian Ocean Coastal Belt biome protected increased only marginally from 6,2% at the end of 2000. Net change as a proportion of opening stock over the four accounting periods since 2000 indicates very minimal increase in protection of this biome over the past 20 years. Only 714 ha was added to the size of the PA in this biome in two decades.

The Indian Ocean Coastal Belt biome is protected almost exclusively through Nature Reserves such as iSimangaliso Wetland Park (also a World Heritage Site, see Section 3.2), Coastal Forest Reserve Nature Reserve and Mkhambathi Nature Reserve.

5.7 Nama-Karoo biome

The Nama-Karoo biome makes up 20,4% of South Africa, and by the end of 2020, 555 443 ha had been protected. The proportion of the Nama-Karoo biome protected more than doubled from 0,9% at the end of 2000 to 2,2% at the end of 2020. Despite this, the Nama-Karoo biome had the lowest proportion of its area protected by the end of 2020.

Net change as a proportion of opening stock over the four accounting periods since 2000 indicates a relatively high net increase in the accounting periods since 2010. This was the result of large increases in Protected Environment, National Park and Nature Reserves. Large protected areas involved include Meerkat National Park and Marietjie van Niekerk Nature Reserve. By the end of 2020, the Nama-Karoo biome was protected by 50,9% National Park, 26,6% Protected Environment and 22,5% Nature Reserve.

5.8 Savanna biome

The Savanna biome is the largest biome in South Africa, occupying 32,1%. Of all the biomes, the Savanna biome had the highest absolute area protected with 5 541 30 ha protected at the end of 2020, and had the highest absolute increase in protected area between 2000 and 2020 with 754 281 ha protected added in that period. The proportion of the biome protected at the end of 2020 was 14,2%.

Net change as a proportion of opening stock over the four accounting periods since 2000 indicates that the accounting period with the largest net increase was from 2015 to 2020 during which time 504 788 ha was added to the size of protected area in this biome.

At the end of 2020, over 50,0% of protected area in the Savanna biome was protected through National Parks, 43,2% by Nature Reserves, 3,3% by Protected Environment, 0,8% by portions of World Heritage Site not in other protected areas, 0,2% by Forest Wilderness Area, and 0,1% by Forest Nature Reserve.

The biome was well protected even prior to 1940 with the declaration of the Kruger National Park. Other large protected areas contributing to the protection of this biome include Kalahari Gemsbok National Park, Marakele and Mapungubwe National Parks, Madikwe and Pilanesberg Game Reserves, and Greater Makalali and Thengwe Nature Reserves.

5.9 Succulent Karoo biome

The Succulent Karoo biome makes up 6,9% of the country and is part of a global biodiversity hotspot that extends into southern Namibia. At the end of 2020, 620 489 ha had been protected. The proportion of the Succulent Karoo biome protected more than doubled from 3,4% at the end of 2000 to 7,4% at the end of 2020.

Net change as a proportion of opening stock over the four accounting periods since 2000 indicates a high net increase from 2000 to 2015. The accounting period with the highest net increase was from 2000 to 2005 during which time 133 847 ha were declared National Park. Between 2005 and 2010 the greatest increase was due to the declaration of the Richtersveld Cultural and Botanical Landscape World Heritage Site. Between 2010 and 2015 the increase was due to the declaration of 91 586 ha of Nature Reserve.

By the end of 2020, the Succulent Karoo biome was protected by National Parks (48,7%), Nature Reserves (35,6%), portions of World Heritage Site not in other protected areas (15,2%), and Mountain Catchment Area (0,6%).

6 DIRECTIONS FOR FUTURE WORK

Through the process of developing the accounts presented in this discussion document, several directions for future work have been identified which would further enhance and add richness to the work undertaken so far. These are discussed below.

1. Invest in improving the protected area dataset

The spatial dataset on protected areas used for these accounts is based on SAPAD. As discussed in Section 2.1 and elsewhere in this report, SAPAD currently has several limitations that impact on the accounts for the extent and composition of the protected area estate over time, and on the ability to develop additional accounts dealing with, for example, land ownership in protected areas. The following aspects of SAPAD are priorities for further work:

- Improving the data on declaration dates of protected areas, noting that particularly prior to 2000 this is complex and often requires historical research.
- Ensuring that data on land ownership is comprehensive and accurate for all protected areas.
- Ensuring that data on which protected areas have been declared through biodiversity stewardship programmes is included fully.
- Including protected areas or portions of protected areas that have been withdrawn in the database, not only currently declared areas, so that reductions in stock can be captured in the accounts.
- Expanding the database to include conservation areas as well as protected areas (or establishing a separate comprehensive database for conservation areas).

This work is resource-intensive and in many cases challenging, and will require partnerships between DFFE, the custodian of SAPAD, and other organisations including conservation authorities, SANBI and Stats SA.

2. Expand the accounts to include all realms

The accounts presented here deal only with land-based protected areas on South Africa's mainland. They should be expanded to include Marine Protected Areas in South Africa's mainland marine territory, and ideally also South Africa's Sub-Antarctic territory, which consists of the Prince Edward Islands and their marine territory.

It may be useful for the accounts for land-based protected areas to include not only an analysis of terrestrial ecosystems and terrestrial biomes in the protected area estate, as has been done here, but also an analysis of the inclusion of rivers, wetlands and estuaries in the protected area estate.

3. Link accounts for protected areas to land accounts

South Africa's first land accounts, for the period 1990 to 2014, were published in 2020 (Stats SA, 2020). The National Land Cover dataset is also available for 2018 and will be regularly updated going forward. Information from land accounts could be linked to accounts for protected areas to explore land cover and land use in and around protected areas, including how this has changed over time. This link is facilitated by the fact that the land accounts and the extent account for protected areas use the same underlying BSU (discussed in Section 2). Such information could be of value to managers of individual protected areas as well as for understanding patterns at the provincial and national level.

4. Explore additional accounts that could be developed for protected areas

A range of additional accounts could be developed for protected areas, to complement the accounts on the extent and composition of the protected area estate presented here.

Accounts for flows of ecosystem services from protected areas may be useful, drawing on methods and lessons from pilot accounts for ecosystem services that have been developed for KwaZulu-Natal province (Turpie et al, 2021). Such accounts could contribute to understanding the social and economic importance of protected areas.

Accounts on expenditure on protected areas, following the conventions for environmental protection expenditure accounts in the SEEA Central Framework, could contribute to analysing the return on investment in the protected area estate. It may not be possible to compile historical accounts of expenditure, but a current baseline could be developed with a view to tracking this going forward.

5. Explore links to other social and economic data

A strength of thematic accounts in SEEA Ecosystem Accounting is that they may be linked to a range of other data, including data from other measurement frameworks. Suggested links that could be investigated include:

- Using Population Census data to explore demographic trends in and around protected areas, such as household income and employment.
- Quantifying the contribution of protected areas to rural development and to the biodiversity economy, for example through the wildlife economy and nature-based tourism. This could include further work on the number of jobs related to protected areas.

Collaboration with conservation authorities would enrich such efforts and help to ensure that they would be useful for informing policy, management and decision-making.

6. Comments on the Accounts for Protected Areas, 1900 to 2020 (discussion document D0401.2)

To ensure that future Accounts for Protected Areas in South Africa are responsive to user needs and provide an accurate reflection of protected areas, all stakeholders are invited to send comments to Riaan Grobler: RiaanG@statssa.gov.za.

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APPENDIX 1: BRIEF DESCRIPTION OF THE BIOMES OF SOUTH AFRICA

South Africa has nine biomes, which are characterised by certain physiognomy and climatic conditions, and into which South Africa's 458 vegetation types are grouped, as described in Section 2.2. The table below provides a brief description of each biome and gives the number of vegetation types that make up each biome. Vegetation types are identified in the South African portion of the Vegetation Map of South Africa, Lesotho and Swaziland (Mucina & Rutherford 2006; SANBI 2006–2018) (referred to as the National Vegetation Map). Vegetation types are relatively homogenous units in the landscape, identified based on their biophysical characteristics such as species distribution, community composition, underlying geology and soil types, altitude, and rainfall gradients. They are used to represent terrestrial ecosystem types in ecosystem accounts.

Biome name	Short description	No. of vegetation types
Albany Thicket	Subtropical thicket is closed shrubland to a low forest dominated by evergreen, sclerophyllous or succulent trees, shrubs, and vines, many of which have stem spines. The vegetation cover is usually very dense, in places almost impenetrable. The vegetation is generally not divided into strata and has little herbaceous cover. Grass cover is absent or low. Thus fire is not as important in the disturbance regime as it is in Savannas. The Thicket biome shares floristic components with many other phytochoria. At its core distribution, Thicket is semi-arid to sub-humid (250–800 mm/yr) with bimodal rainfall peaking in spring and autumn, although rainfall may occur throughout the year. The biome can be subtropical to warm-temperate and is mostly frost-free. Thicket is dominated by trees and shrubs that are very long-lived and re-sprout after frost and fire. Flowers tend to be inconspicuous and predominantly bird-dispersed and appear throughout the year. The biome supports a diverse mammal fauna and megaherbivores are a key part of defoliation with drought, fire and tree mortality playing lesser roles.	44
Desert	The Desert biome is found under very harsh environmental conditions that are more extreme than those found in the Succulent Karoo biome and Nama-Karoo biome. Rainfall is highly variable between years but usually falls in summer (MAR 10 mm in the west, to 70 or 80mm inland) with high levels of summer aridity. The Desert biome of South Africa is the southernmost extension of the extensive Namib Desert that covers the western parts of Namibia and stretches to southern Angola. Annual plants (often annual grasses) dominate, especially after rains. During dry periods the plains can appear completely bare. Perennial plants are usually encountered in specialised habitats associated with local concentrations of water. Common examples of these are broad drainage lines. The perennial grass <i>Stipagrostis sabulicola</i> occurs sporadically on large sand dunes which contain substantial stores of water. The Desert biome includes an abundant insect fauna which includes many tenebrionid beetles, some of which can utilise fog water.	15
Forest	Forests are restricted to frost-free areas with a mean annual rainfall of more than 525 mm in the winter rainfall region and more than 725 mm rainfall in the summer rainfall region. They occur from sea level to over 2 100 m above sea level. Forests rarely burn, mainly due to the high humidity – under extremely hot and dry (berg wind) conditions fires may occur and destroy the forest structure. Forests tend to occur in patches, few of which cover areas greater than 1 km ² , with areas greater than this only common in the southern Cape and Lowveld Escarpment. Even added together, forests cover less than 0,5% of southern Africa's surface area, making this the smallest biome in the country. The canopy cover of forests is continuous, comprising mostly evergreen trees, and beneath it the vegetation is multi-layered. Herbaceous plants, particularly ferns, are only common in the montane forests, whereas lianas and epiphytes are common throughout. A herbaceous ground layer is almost absent due to the dense shade. On the edges of the patches of forest are distinctive communities, the so-called fringe, and ecotonal communities, which are able to tolerate fire. Some 649 woody and 636 herbaceous plant species are recorded from forests. However, forests are not floristically uniform.	12
Fynbos	Fynbos is dominated by small-leaved, evergreen shrubs whose regeneration is intimately related to fire. The four complex factors paramount in fynbos ecology are: (1) generally nutrient-poor soils; (2) hot, dry summers alternating with cool, wet winters, typical of other Mediterranean-type regions (more pronounced in the western portions of the biome); (3) recurrent fires at 5–50 year intervals; (4) an intricate complex of animal-plant interactions,	122

Biome name	Short description	No. of vegetation types
	especially involving grazing, pollination, and dispersal. Like other Mediterranean-type ecosystems, the Fynbos biome has exceptionally high plant endemism and species richness.	
Grassland	The Grassland biome is found chiefly on the high central plateau of South Africa, and the inland areas of KwaZulu-Natal and Eastern Cape. The topography is mainly flat and rolling but includes the escarpment itself. The altitude varies from near sea level to 2 850 m above sea level. Grasslands are dominated by Poaceae. Trees are mostly absent, except in a few localised habitats. Forbs, particularly geophytes (bulbs) are abundant and comprise more than two-thirds of the biomass. Frosts, fire, and grazing maintain the grass and forb dominance and limit the establishment of trees. At higher rainfall and on more acidic soils, sour grasses prevail, with 625 mm per year taken as the level at which unpalatable grasses predominate. C4 grasses dominate throughout the biome, except at the highest altitudes where C3 grasses become prominent.	73
Indian Ocean Coastal Belt	This region occurs as an almost 800 km long coastal strip between the South African border with Mozambique as far south as the mouth of the Great Kei River. This high-level vegetation unit comprises a dominant forest cover interrupted by edaphically or hydrologically controlled areas of grassland, with at least a significant part of the belt being open to dense savanna vegetation, interspersed with many areas of forest and grassland.	6
Nama-Karoo	The Nama-Karoo biome occurs in the central/western interior of South Africa, at altitudes between 500 and 2000m, with most of the biome falling between 1 000 and 1 400 m. It is the second-largest biome in the region. The geology underlying the biome is varied, as the distribution of this biome is determined primarily by rainfall. The rain falls in summer and varies between 100 and 520mm per year. This also determines the predominant soil type – over 80,0% of the area is covered by a lime-rich, weakly developed soil over rock. Although less than 5,0% of rain reaches the rivers, the high erodibility of soils poses a major problem where overgrazing occurs. The dominant vegetation is a grassy, dwarf shrubland. Grasses tend to be more common in depressions and on sandy soils, and less abundant on clayey soils. Grazing rapidly increases the relative abundance of shrubs. Most of the grasses are of the C4 type and, like the shrubs, are deciduous in response to rainfall events. The amount and nature of the fuel load are insufficient to carry fires and fires are rare within the biome. The large historical herds of Springbok and other game no longer exist. Like the many bird species in the area - mainly larks - the game was probably nomadic between patches of rainfall events within the biome. The Brown Locust and Karoo Caterpillar exhibit eruptions under similarly favourable, local rainfall events, and attract large numbers of bird and mammal predators.	13
Savanna	The Savanna biome is the largest biome in southern Africa, occupying 46,0% of its area, and over one-third the area of South Africa. It is well developed over the Lowveld and Kalahari region of South Africa and is also the dominant vegetation in Botswana, Namibia, and Zimbabwe. It is characterised by a grassy ground layer and a distinct upper layer of woody plants. Where this upper layer is near the ground the vegetation may be referred to as Shrubveld, where it is dense as Woodland. Intermediate stages are locally known as Bushveld. The environmental factors delimiting the biome are complex: altitude ranges from sea level to 2 000 m; rainfall varies from 235 to 1 000 mm per year; frost may occur from 0 to 120 days per year, and almost every major geological and soil type occurs within the biome. A major factor delimiting the biome is low and highly seasonal rainfall which prevents the upper layer from dominating, coupled with fires and grazing, which keep the grass layer dominant. Summer rainfall is essential for the grass dominance, which, with its fine material, fuels near-annual fires. Almost all species are adapted to survive fires. The grass layer is dominated by C4-type grasses, which are at an advantage where the growing season is hot, but where rainfall has a stronger winter component, C3-type grasses dominate. The shrub-tree layer may vary from 1 to 20 m in height, but in Bushveld typically varies from 3 to 7 m.	91
Succulent Karoo	The Succulent Karoo biome has equal status to the other biomes in South Africa - it is not a subtype of "a Karoo biome." Most of the biome covers a flat to gently undulating plain, with some hilly and "broken" veld, mostly situated to the west and south of the escarpment, and north of the Cape Fold Belt. The altitude is mostly below 800 m, but in the east, it may reach 1 500 m. Soils are lime-rich and often weakly developed. The Succulent Karoo biome is primarily determined by the presence of low winter rainfall and extreme summer aridity. Rainfall varies between 20 and 290 mm per year. Because the rains are cyclonic, and not due to thunderstorms, the erosive power is far less than of the summer rainfall biomes. During summer, temperatures in excess of 40°C are common. Fog is common nearer the coast. Frost is infrequent. Desiccating, hot, north-westerly wind may occur	64

Biome name	Short description	No. of vegetation types
	throughout the year. The vegetation is dominated by dwarf, succulent shrubs, of which the Mesembryanthemaceae and Crassulaceae are particularly prominent. Mass flowering displays of annuals (mainly Asteraceae) occur in spring, often on degraded lands. Grasses are rare, except in some sandy areas, and are of the C3 type. The number of plant species - mostly succulents - is very high and unparalleled elsewhere in the world for an arid area of this size.	

APPENDIX 2. BRIEF DESCRIPTION OF THE WORLD HERITAGE SITES OF SOUTH AFRICA

World Heritage Sites are landmarks or areas considered as: '*cultural heritage*' from the point of view of history, art, science, aesthetic, ethnological or anthropology; or '*natural heritage*' of outstanding universal value from the aesthetic, scientific, conservation or natural beauty point of view. They are identified in terms of the Convention concerning the protection of the World Cultural and Natural Heritage adopted in 1972 by the UNESCO. By assigning places as World Heritage Sites, UNESCO recognises these sites as important to pass on to future generations. South Africa has 10 World Heritage Sites inscribed on the World Heritage List. South Africa further recognises cultural heritage and natural heritage through the World Heritage Act, 1999 (Act No. 49 of 1999), which makes the World Heritage Convention part of South African domestic law. It creates a framework to promote, manage, oversee, market and facilitate tourism and related development in connection with World Heritage Sites in accordance with applicable law and the Convention in such a way that the cultural and ecological integrity is maintained.

Name	Heritage	Criteria	Short description	Inscription date*
Barberton Makhonjwa Mountains	Natural	Criteria (viii): to be outstanding examples representing major stages of earth's history, including the record of life, significant on-going geological processes in the development of landforms, or significant geomorphic or physiographic features.	Situated in north-eastern South Africa, the Barberton Makhonjwa Mountains comprise 40,0% of the Barberton Greenstone Belt, one of the world's oldest geological structures. The property represents the best-preserved succession of volcanic and sedimentary rock dating back 3,6 to 3,25 billion years and forms a diverse repository of information on surface conditions, meteorite impacts, volcanism, continent-building processes and the environment of early life. Source: UNESCO website - https://whc.unesco.org/en/list/1575	2018
Cape Floristic Region Protected Areas	Natural	Criteria (ix): to be outstanding examples representing significant on-going ecological and biological processes in the evolution and development of terrestrial, fresh water, coastal and marine ecosystems and communities of plants and animals. Criteria (x): to contain the most important and significant natural habitats for in-situ conservation of biological diversity, including those containing threatened species of outstanding universal value from the point of view of science or conservation.	Inscribed on the World Heritage List in 2004, the property is located at the south-western extremity of South Africa. It is one of the world's great centres of terrestrial biodiversity. The extended property includes national parks, nature reserves, wilderness areas, State forests and mountain catchment areas. These elements add a significant number of endemic species associated with the Fynbos vegetation, a fine-leaved sclerophyllic shrubland adapted to both a Mediterranean climate and periodic fires, which is unique to the Cape Floral Region. Source: UNESCO website - https://whc.unesco.org/en/list/1007	2004, extension in 2015
Fossil Hominid Sites of SA	Cultural	Criteria (iii): to bear a unique or at least exceptional testimony to a cultural tradition or to a civilisation which is living or which has disappeared. Criteria (vi): to be directly or tangibly associated with events or living traditions, with ideas, or with beliefs, with artistic and literary works of outstanding universal significance.	The Taung Skull Fossil Site, part of the extension to the site inscribed in 1999, is the place where in 1924 the celebrated Taung Skull – a specimen of the species <i>Australopithecus africanus</i> – was found. Makapan Valley, also in the site, features in its many archaeological caves traces of human occupation and evolution dating back some 3,3 million years. The area contains essential elements that define the origin and evolution of humanity. Fossils found there have enabled the identification of several specimens of early hominids, more particularly of <i>Paranthropus</i> , dating back between 4,5 million and 2,5 million years, as well as evidence of the domestication of fire 1,8 million to 1 million years ago. Source: UNESCO website - https://whc.unesco.org/en/list/915	1999, extension in 2005

Name	Heritage	Criteria	Short description	Inscription date*
iSimangaliso Wetland Park	Natural	Criteria (vii): to contain superlative natural phenomena or areas of exceptional natural beauty and aesthetic importance. Criteria (ix): to be outstanding examples representing significant on-going ecological and biological processes in the evolution and development of terrestrial, fresh water, coastal and marine ecosystems and communities of plants and animals. Criteria (x): to contain the most important and significant natural habitats for in-situ conservation of biological diversity, including those containing threatened species of outstanding universal value from the point of view of science or conservation.	The ongoing fluvial, marine and aeolian processes in the site have produced a variety of landforms, including coral reefs, long sandy beaches, coastal dunes, lake systems, swamps, and extensive reed and papyrus wetlands. The interplay of the park's environmental heterogeneity with major floods and coastal storms and a transitional geographic location between subtropical and tropical Africa has resulted in exceptional species diversity and ongoing speciation. The mosaic of landforms and habitat types creates breathtaking scenic vistas. The site contains critical habitats for a range of species from Africa's marine, wetland and savannah environments. Source: UNESCO website - https://whc.unesco.org/en/list/914	1999
Mapungubwe Cultural Landscape	Cultural	Criteria (ii): to exhibit an important interchange of human values, over a span of time or within a cultural area of the world, on developments in architecture or technology, monumental arts, town-planning or landscape design. Criteria (iii): to bear a unique or at least exceptional testimony to a cultural tradition or to a civilisation which is living or which has disappeared. Criteria (iv): to be an outstanding example of a type of building, architectural or technological ensemble or landscape which illustrates (a) significant stage(s) in human history. Criteria (v): to be an outstanding example of a traditional human settlement, land-use, or sea-use which is representative of a culture (or cultures), or human interaction with the environment especially when it has become vulnerable under the impact of irreversible change.	Mapungubwe is set hard against the northern border of South Africa, joining Zimbabwe and Botswana. It is an open, expansive savannah landscape at the confluence of the Limpopo and Shashe rivers. Mapungubwe developed into the largest kingdom in the sub-continent before it was abandoned in the 14th century. What survives are the almost untouched remains of the palace sites and also the entire settlement area dependent upon them, as well as two earlier capital sites, the whole presenting an unrivalled picture of the development of social and political structures over some 400 years. Source: UNESCO website - https://whc.unesco.org/en/list/1099	2003
Robben Island	Cultural	Criteria (iii): to bear a unique or at least exceptional testimony to a cultural tradition or to a civilisation which is living or which has disappeared. Criteria (vi): to be directly or tangibly associated with events or living traditions, with ideas, or with beliefs, with artistic and literary works of outstanding universal significance.	Robben Island was used at various times between the 17th and 20th centuries as a prison, a hospital for socially unacceptable groups and a military base. Its buildings, particularly those of the late 20th century such as the maximum security prison for political prisoners, witnessed the triumph of democracy and freedom over oppression and racism. Source: UNESCO website - https://whc.unesco.org/en/list/916	1999

Name	Heritage	Criteria	Short description	Inscription date*
Maloti-Drakensberg Park	Cultural and natural	Criteria (i): to represent a masterpiece of human creative genius. Criteria (iii): to bear a unique or at least exceptional testimony to a cultural tradition or to a civilisation which is living or which has disappeared. Criteria (vii): to contain superlative natural phenomena or areas of exceptional natural beauty and aesthetic importance. Criteria (x): to contain the most important and significant natural habitats for in-situ conservation of biological diversity, including those containing threatened species of outstanding universal value from the point of view of science or conservation.	The Maloti-Drakensberg Park is a transnational property composed of the uKhahlamba Drakensberg National Park in South Africa and the Sehlabathebe National Park in Lesotho. The site has exceptional natural beauty in its soaring basaltic buttresses, incisive dramatic cutbacks, and golden sandstone ramparts as well as visually spectacular sculptured arches, caves, cliffs, pillars and rock pools. The site's diversity of habitats protects a high level of endemic and globally important plants. The site harbours endangered species such as the Cape vulture (<i>Gyps coprotheres</i>) and the bearded vulture (<i>Gypaetus barbatus</i>). Lesotho's Sehlabathebe National Park also harbours the Maloti minnow (<i>Pseudobarbus quathlambae</i>), a critically endangered fish species only found in this park. This spectacular natural site contains many caves and rock-shelters with the largest and most concentrated group of paintings in Africa south of the Sahara. They represent the spiritual life of the San people, who lived in this area over a period of 4 000 years. Source: UNESCO website - https://whc.unesco.org/en/list/985	2000, extension in 2013
Vredefort Dome**	Natural	Criteria (viii): to be outstanding examples representing major stages of earth's history, including the record of life, significant on-going geological processes in the development of landforms, or significant geomorphic or physiographic features.	Vredefort Dome, approximately 120 km south-west of Johannesburg, is a representative part of a larger meteorite impact structure, or astrobleme. Dating back 2 023 million years, it is the oldest astrobleme yet found on Earth. With a radius of 190 km, it is also the largest and the most deeply eroded. Vredefort Dome bears witness to the world's greatest known single energy release event, which had devastating global effects including, according to some scientists, major evolutionary changes. It provides critical evidence of the Earth's geological history and is crucial to understanding the evolution of the planet. Despite the importance of impact sites to the planet's history, geological activity on the Earth's surface has led to the disappearance of evidence from most of them, and Vredefort is the only example to provide a full geological profile of an astrobleme below the crater floor. Source: UNESCO website - https://whc.unesco.org/en/list/1162	2005
Richtersveld Cultural and Botanical Landscape	Cultural	Criteria (iv): to be an outstanding example of a type of building, architectural or technological ensemble or landscape which illustrates (a) significant stage(s) in human history. Criteria (v): to be an outstanding example of a traditional human settlement, land-use, or sea-use which is representative of a culture (or cultures), or human interaction with the environment especially when it has become vulnerable under the impact of irreversible change.	The 160 000 ha Richtersveld Cultural and Botanical Landscape of dramatic mountainous desert in north-western South Africa constitutes a cultural landscape communally owned and managed. This site sustains the semi-nomadic pastoral livelihood of the Nama people, reflecting seasonal patterns that may have persisted for as much as two millennia in southern Africa. It is the only area where the Nama still construct portable rush-mat houses (haru om) and includes seasonal migrations and grazing grounds, together with stock posts. The pastoralists collect medicinal and other plants and have a strong oral tradition associated with different places and attributes of the landscape. Source: UNESCO website - https://whc.unesco.org/en/list/1265	2007

Name	Heritage	Criteria	Short description	Inscription date*
#Khomani Cultural Landscape**	Cultural	Criteria (v): to be an outstanding example of a traditional human settlement, land-use, or sea-use which is representative of a culture (or cultures), or human interaction with the environment especially when it has become vulnerable under the impact of irreversible change. Criteria (vi): to be directly or tangibly associated with events or living traditions, with ideas, or with beliefs, with artistic and literary works of outstanding universal significance.	The #Khomani Cultural Landscape is located at the border with Botswana and Namibia in the northern part of the country, coinciding with the Kalahari Gemsbok National Park (KGNP). The large expanse of sand contains evidence of human occupation from the Stone Age to the present and is associated with the culture of the formerly nomadic #Khomani San people and the strategies that allowed them to adapt to harsh desert conditions. They developed a specific ethnobotanical knowledge, cultural practices and a worldview related to the geographical features of their environment. The #Khomani Cultural Landscape bears testimony to the way of life that prevailed in the region and shaped the site over thousands of years. Source: UNESCO website - https://whc.unesco.org/en/list/1545	2017

* Inscription date is the date of inscription onto the World Heritage Site list. This is different from the date on which an area is proclaimed in terms of the World Heritage Convention Act, 1999 and thus different from the date of declaration in the Protected area dataset. For instance, Mapungubwe Cultural Landscape World Heritage Site was inscribed onto the World Heritage List in 2003, and was proclaimed in terms of the World Heritage Convention Act, 1999 in South Africa in 2007 (RSA, 2007).

** Not included in the World Heritage Site analysis in Section 3.2.

APPENDIX 3. EXTENT ACCOUNT FOR LAND-BASED PROTECTED AREAS PER PROVINCE

Extent account for land-based protected areas in the Eastern Cape province, 1900–2020, in hectares, based on declaration dates in the South African Protected Areas Database

	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 1900	-	-						16 884 228	16 884 228	-	0,0%
Additions to stock		-						-	-		
Reductions in stock		-						-	-		
Net change in stock		-						-	-		
<i>Net change as % of opening</i>								0,0%	0,0%		
Closing stock 1920	-	-						16 884 228	16 884 228	-	0,0%
	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 1920	-	-						16 884 228	16 884 228	-	0,0%
Additions to stock	153 431	-						-	153 431		
Reductions in stock	-	-						-153 431	-153 431		
Net change in stock	153 431	-						-153 431	-	153 431	
<i>Net change as % of opening</i>								-0,9%	0,0%		
Closing stock 1940	153 431	-						16 730 797	16 884 228	153 431	0,9%
	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 1940	153 431	-						16 730 797	16 884 228	153 431	0,9%
Additions to stock	-	2 129						-	2 129		
Reductions in stock	-	-						-2 129	-2 129		
Net change in stock	-	2 129						-2 129	-	2 129	
<i>Net change as % of opening</i>	0,0%							0,0%	0,0%	1,4%	
Closing stock 1960	153 431	2 129						16 728 668	16 884 228	155 560	0,9%

Extent account for land-based protected areas in the Eastern Cape province, 1900–2020, in hectares, based on declaration dates in the South African Protected Areas Database (continued)

	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 1960	153 431	2 129						16 728 668	16 884 228	155 560	0,9%
Additions to stock	4 401	3 548						-	7 949		
Reductions in stock	-	-						-7 949	-7 949		
Net change in stock	4 401	3 548						-7 949	-	7 949	
<i>Net change as % of opening</i>	<i>2,9%</i>	<i>166,7%</i>						<i>0,0%</i>	<i>0,0%</i>	<i>5,1%</i>	
Closing stock 1970	157 832	5 677						16 720 719	16 884 228	163 509	1,0%
	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 1970	157 832	5 677						16 720 719	16 884 228	163 509	1,0%
Additions to stock	55 238	86 524		685	21 747	2 145		2	166 341		
Reductions in stock	-	-		-	-	-		-166 341	-166 341		
Net change in stock	55 238	86 524		685	21 747	2 145		-166 339	-	166 339	
<i>Net change as % of opening</i>	<i>35,0%</i>	<i>1524,1%</i>						<i>-1,0%</i>	<i>0,0%</i>	<i>101,7%</i>	
Closing stock 1980	213 070	92 201		685	21 747	2 145		16 554 380	16 884 228	329 848	2,0%
	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 1980	213 070	92 201	-	685	21 747	2 145		16 554 380	16 884 228	329 848	2,0%
Additions to stock	-	125 395	-	5 422	-	-		-	130 817		
Reductions in stock	-	-	-	-	-	-		-130 817	-130 817		
Net change in stock	-	125 395	-	5 422	-	-		-130 817	-	130 817	
<i>Net change as % of opening</i>	<i>0,0%</i>	<i>136,0%</i>		<i>791,5%</i>	<i>0,0%</i>	<i>0,0%</i>		<i>-0,8%</i>	<i>0,0%</i>	<i>39,7%</i>	
Closing stock 1990	213 070	217 596	-	6 107	21 747	2 145		16 423 563	16 884 228	460 665	2,7%
	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 1990	213 070	217 596	-	6 107	21 747	2 145	-	16 423 563	16 884 228	460 665	2,7%
Additions to stock	-	197 716	-	451	-	-	-	-	198 167		
Reductions in stock	-	-	-	-	-	-	-	-198 167	-198 167		
Net change in stock	-	197 716	-	451	-	-	-	-198 167	-	198 167	
<i>Net change as % of opening</i>	<i>0,0%</i>	<i>90,9%</i>		<i>7,4%</i>	<i>0,0%</i>	<i>0,0%</i>		<i>-1,2%</i>	<i>0,0%</i>	<i>43,0%</i>	
Closing stock 2000	213 070	415 312	-	6 558	21 747	2 145	-	16 225 396	16 884 228	658 832	3,9%

Extent account for land-based protected areas in the Eastern Cape province, 1900–2020, in hectares, based on declaration dates in the South African Protected Areas Database (concluded)

	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 2000	213 070	415 312	-	6 558	21 747	2 145	-	16 225 396	16 884 228	658 832	3,9%
Additions to stock	35 586	-	-	-	-	-	-	-	35 586		
Reductions in stock	-	-	-	-	-	-	-	-35 586	-35 586		
Net change in stock	35 586	-	-	-	-	-	-	-35 586	-	35 586	
<i>Net change as % of opening</i>	<i>16,7%</i>	<i>0,0%</i>		<i>0,0%</i>	<i>0,0%</i>	<i>0,0%</i>		<i>-0,2%</i>	<i>0,0%</i>	<i>5,4%</i>	
Closing stock 2005	248 656	415 312	-	6 558	21 747	2 145	-	16 189 810	16 884 228	694 418	4,1%

	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 2005	248 656	415 312	-	6 558	21 747	2 145	-	16 189 810	16 884 228	694 418	4,1%
Additions to stock	-	4 412	-	-	-	-	-	-	4 412		
Reductions in stock	-	-	-	-	-	-	-	-4 412	-4 412		
Net change in stock	-	4 412	-	-	-	-	-	-4 412	-	4 412	
<i>Net change as % of opening</i>	<i>0,0%</i>	<i>1,1%</i>		<i>0,0%</i>	<i>0,0%</i>	<i>0,0%</i>		<i>0,0%</i>	<i>0,0%</i>	<i>0,6%</i>	
Closing stock 2010	248 656	419 724	-	6 558	21 747	2 145	-	16 185 398	16 884 228	698 830	4,1%

	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	248 656	419 724	-	6 558	21 747	2 145	-	16 185 398	16 884 228	698 830	4,1%
Additions to stock	-	16 505	100 467	-	-	-	-	-	116 972		
Reductions in stock	-	-	-	-	-	-	-	-116 972	-116 972		
Net change in stock	-	16 505	100 467	-	-	-	-	-116 972	-	116 972	
<i>Net change as % of opening</i>	<i>0,0%</i>	<i>3,9%</i>		<i>0,0%</i>	<i>0,0%</i>	<i>0,0%</i>		<i>-0,7%</i>	<i>0,0%</i>	<i>16,7%</i>	
Closing stock 2015	248 656	436 229	100 467	6 558	21 747	2 145	-	16 068 426	16 884 228	815 802	4,8%

	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 2015	248 656	436 229	100 467	6 558	21 747	2 145	-	16 068 426	16 884 228	815 802	4,8%
Additions to stock	3	24 109	353 535	1 623	-	-	-	-	379 270		
Reductions in stock	-	-	-	-	-	-	-	-379 270	-379 270		
Net change in stock	3	24 109	353 535	1 623	-	-	-	-379 270	-	379 270	
<i>Net change as % of opening</i>	<i>0,0%</i>	<i>5,5%</i>	<i>351,9%</i>	<i>24,7%</i>	<i>0,0%</i>	<i>0,0%</i>		<i>-2,4%</i>	<i>0,0%</i>	<i>46,5%</i>	
Closing stock 2020	248 659	460 338	454 002	8 181	21 747	2 145	-	15 689 156	16 884 228	1 195 072	7,1%

* Note that World Heritage Sites show only the portion that do not overlap with other protected area types (refer to Section 1.2 and Section 2.1).

Extent account for land-based protected areas in the Free State province, 1900–2020, in hectares, based on declaration dates in the South African Protected Areas Database

	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 1900	-	-						12 982 488	12 982 488	-	0,0%
Additions to stock		-						-	-		
Reductions in stock		-						-	-		
Net change in stock		-						-	-		
<i>Net change as % of opening</i>								<i>0,0%</i>	<i>0,0%</i>		
Closing stock 1920	-	-						12 982 488	12 982 488	-	0,0%
Opening stock 1920	-	-						12 982 488	12 982 488	-	0,0%
Additions to stock	-	-						-	-		
Reductions in stock	-	-						-	-		
Net change in stock	-	-						-	-		
<i>Net change as % of opening</i>								<i>0,0%</i>	<i>0,0%</i>		
Closing stock 1940	-	-						12 982 488	12 982 488	-	0,0%
Opening stock 1940	-	-						12 982 488	12 982 488	-	0,0%
Additions to stock	-	744						-	744		
Reductions in stock	-	-						-744	-744		
Net change in stock	-	744						-744	-	744	
<i>Net change as % of opening</i>								<i>0,0%</i>	<i>0,0%</i>		
Closing stock 1960	-	744						12 981 744	12 982 488	744	0,0%
Opening stock 1960	-	744						12 981 744	12 982 488	744	0,0%
Additions to stock	34 000	12 116						-	46 116		
Reductions in stock	-	-						- 46 116	- 46 116		
Net change in stock	34 000	12 116						- 46 116	-	46 116	
<i>Net change as % of opening</i>		<i>1628,5%</i>						<i>-0,4%</i>	<i>0,0%</i>	<i>6198,4%</i>	
Closing stock 1970	34 000	12 860						12 935 628	12 982 488	46 860	0,4%

Extent account for land-based protected areas in the Free State province, 1900–2020, in hectares, based on declaration dates in the South African Protected Areas Database (continued)

	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 1970	34 000	12 860		-	-	-		12 935 628	12 982 488	46 860	0,4%
Additions to stock	-	140 180		-	-	-		-	140 180		
Reductions in stock	-	-		-	-	-		-140 180	-140 180		
Net change in stock	-	140 180		-	-	-		-140 180	-	140 180	
<i>Net change as % of opening</i>	<i>0,0%</i>	<i>1090,0%</i>						<i>-1,1%</i>	<i>0,0%</i>	<i>299,1%</i>	
Closing stock 1980	34 000	153 040		-	-	-		12 795 448	12 982 488	187 040	1,4%
	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 1980	34 000	153 040	-	-	-	-		12 795 448	12 982 488	187 040	1,4%
Additions to stock	-	55 151	-	-	-	-		-	55 151		
Reductions in stock	-	-	-	-	-	-		- 55 151	- 55 151		
Net change in stock	-	55 151	-	-	-	-		- 55 151	-	55 151	
<i>Net change as % of opening</i>	<i>0,0%</i>	<i>36,0%</i>						<i>-0,4%</i>	<i>0,0%</i>	<i>29,5%</i>	
Closing stock 1990	34 000	208 191	-	-	-	-		12 740 297	12 982 488	242 191	1,9%
	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 1990	34 000	208 191	-	-	-	-	-	12 740 297	12 982 488	242 191	1,9%
Additions to stock	-	211 404	-	-	-	-	-	-	211 404		
Reductions in stock	-	-	-	-	-	-	-	-211 404	-211 404		
Net change in stock	-	211 404	-	-	-	-	-	-211 404	-	211 404	
<i>Net change as % of opening</i>	<i>0,0%</i>	<i>101,5%</i>						<i>-1,7%</i>	<i>0,0%</i>	<i>87,3%</i>	
Closing stock 2000	34 000	419 595	-	-	-	-	-	12 528 893	12 982 488	453 595	3,5%
	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 2000	34 000	419 595	-	-	-	-	-	12 528 893	12 982 488	453 595	3,5%
Additions to stock	-	50 746	-	-	-	-	-	-	50 746		
Reductions in stock	-	-	-	-	-	-	-	- 50 746	- 50 746		
Net change in stock	-	50 746	-	-	-	-	-	- 50 746	-	50 746	
<i>Net change as % of opening</i>	<i>0,0%</i>	<i>12,1%</i>						<i>-0,4%</i>	<i>0,0%</i>	<i>11,2%</i>	
Closing stock 2005	34 000	470 341	-	-	-	-	-	12 478 147	12 982 488	504 341	3,9%

Extent account for land-based protected areas in the Free State province, 1900–2020, in hectares, based on declaration dates in the South African Protected Areas Database (concluded)

	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 2005	34 000	470 341	-	-	-	-	-	12 478 147	12 982 488	504 341	3,9%
Additions to stock	-	-	-	-	-	-	113	-	113		
Reductions in stock	-	-	-	-	-	-	-	-113	-113		
Net change in stock	-	-	-	-	-	-	113	-113	-	113	
<i>Net change as % of opening</i>	<i>0,0%</i>	<i>0,0%</i>						<i>0,0%</i>	<i>0,0%</i>	<i>0,0%</i>	
Closing stock 2010	34 000	470 341	-	-	-	-	113	12 478 034	12 982 488	504 454	3,9%
Opening stock 2010	34 000	470 341	-	-	-	-	113	12 478 034	12 982 488	504 454	3,9%
Additions to stock	-	2	-	-	-	-	-	-	2		
Reductions in stock	-	-	-	-	-	-	-	-2	-2		
Net change in stock	-	2	-	-	-	-	-	-2	-	2	
<i>Net change as % of opening</i>	<i>0,0%</i>	<i>0,0%</i>					<i>0,0%</i>	<i>0,0%</i>	<i>0,0%</i>	<i>0,0%</i>	
Closing stock 2015	34 000	470 343	-	-	-	-	113	12 478 032	12 982 488	504 456	3,9%
Opening stock 2015	34 000	470 343	-	-	-	-	113	12 478 032	12 982 488	504 456	3,9%
Additions to stock	-	5 480	16 756	-	-	-	-	-	22 236		
Reductions in stock	-	-	-	-	-	-	-	-22 236	-22 236		
Net change in stock	-	5 480	16 756	-	-	-	-	-22 236	-	22 236	
<i>Net change as % of opening</i>	<i>0,0%</i>	<i>1,2%</i>					<i>0,0%</i>	<i>-0,2%</i>	<i>0,0%</i>	<i>4,4%</i>	
Closing stock 2020	34 000	475 823	16 756	-	-	-	113	12 455 796	12 982 488	526 692	4,1%

* Note that World Heritage Sites show only the portion that do not overlap with other protected area types (refer to Section 1.2 and Section 2.1).

Extent account for land-based protected areas in Gauteng province, 1900–2020, in hectares, based on declaration dates in the South African Protected Areas Database

	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 1900	-	-						1 817 814	1 817 814	-	0,0%
Additions to stock		514						-	514		
Reductions in stock		-						-514	-514		
Net change in stock		514						-514	-	514	
<i>Net change as % of opening</i>								0,0%	0,0%		
Closing stock 1920	-	514						1 817 300	1 817 814	514	0,0%
	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 1920	-	514						1 817 300	1 817 814	514	0,0%
Additions to stock	-	-						-	-		
Reductions in stock	-	-						-	-		
Net change in stock	-	-						-	-	-	
<i>Net change as % of opening</i>		0,0%						0,0%	0,0%	0,0%	
Closing stock 1940	-	514						1 817 300	1 817 814	514	0,0%
	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 1940	-	514						1 817 300	1 817 814	514	0,0%
Additions to stock	-	34 080						-	34 080		
Reductions in stock	-	-						- 34 080	- 34 080		
Net change in stock	-	34 080						- 34 080	-	34 080	
<i>Net change as % of opening</i>		6 630,4%						-1,9%	0,0%	6 630,4%	
Closing stock 1960	-	34 594						1 783 220	1 817 814	34 594	1,9%
	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 1960	-	34 594						1 783 220	1 817 814	34 594	1,9%
Additions to stock	6	5 780						-	5 786		
Reductions in stock	-	-						- 5 786	- 5 786		
Net change in stock	6	5 780						- 5 786	-	5 786	
<i>Net change as % of opening</i>		16,7%						-0,3%	0,0%	16,7%	
Closing stock 1970	6	40 374						1 777 434	1 817 814	40 380	2,2%

Extent account for land-based protected areas in Gauteng province, 1900–2020, in hectares, based on declaration dates in the South African Protected Areas Database (continued)

	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 1970	6	40 374		-	-	-		1 777 434	1 817 814	40 380	2,2%
Additions to stock	24	33 535		-	-	-		-	33 559		
Reductions in stock	-	-		-	-	-		- 33 559	- 33 559		
Net change in stock	24	33 535		-	-	-		- 33 559	-	33 559	
<i>Net change as % of opening</i>	<i>400,0%</i>	<i>83,1%</i>						<i>-1,9%</i>	<i>0,0%</i>	<i>83,1%</i>	
Closing stock 1980	30	73 909		-	-	-		1 743 875	1 817 814	73 939	4,1%
	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 1980	30	73 909	-	-	-	-		1 743 875	1 817 814	73 939	4,1%
Additions to stock	-	758	-	-	-	-		-	758		
Reductions in stock	-	-	-	-	-	-		-758	-758		
Net change in stock	-	758	-	-	-	-		-758	-	758	
<i>Net change as % of opening</i>	<i>0,0%</i>	<i>1,0%</i>						<i>0,0%</i>	<i>0,0%</i>	<i>1,0%</i>	
Closing stock 1990	30	74 667	-	-	-	-		1 743 117	1 817 814	74 697	4,1%
	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 1990	30	74 667	-	-	-	-	-	1 743 117	1 817 814	74 697	4,1%
Additions to stock	-	1 022	5 254	-	-	-	-	-	6 276		
Reductions in stock	-	-	-	-	-	-	-	- 6 276	- 6 276		
Net change in stock	-	1 022	5 254	-	-	-	-	- 6 276	-	6 276	
<i>Net change as % of opening</i>	<i>0,0%</i>	<i>1,4%</i>						<i>-0,4%</i>	<i>0,0%</i>	<i>8,4%</i>	
Closing stock 2000	30	75 689	5 254	-	-	-	-	1 736 841	1 817 814	80 973	4,5%
	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 2000	30	75 689	5 254	-	-	-	-	1 736 841	1 817 814	80 973	4,5%
Additions to stock	-	-	-	-	-	-	-	-	-		
Reductions in stock	-	-	-	-	-	-	-	-	-		
Net change in stock	-	-	-	-	-	-	-	-	-	-	
<i>Net change as % of opening</i>	<i>0,0%</i>	<i>0,0%</i>	<i>0,0%</i>					<i>0,0%</i>	<i>0,0%</i>	<i>0,0%</i>	
Closing stock 2005	30	75 689	5 254	-	-	-	-	1 736 841	1 817 814	80 973	4,5%

Extent account for land-based protected areas in Gauteng province, 1900–2020, in hectares, based on declaration dates in the South African Protected Areas Database (concluded)

	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 2005	30	75 689	5 254	-	-	-	-	1 736 841	1 817 814	80 973	4,5%
Additions to stock	-	-	-	-	-	-	43 186	-	43 186		
Reductions in stock	-	-	-	-	-	-	-	- 43 186	- 43 186		
Net change in stock	-	-	-	-	-	-	43 186	- 43 186	-	43 186	
<i>Net change as % of opening</i>	<i>0,0%</i>	<i>0,0%</i>	<i>0,0%</i>					<i>-2,5%</i>	<i>0,0%</i>	<i>53,3%</i>	
Closing stock 2010	30	75 689	5 254	-	-	-	43 186	1 693 655	1 817 814	124 159	6,8%
Opening stock 2010	30	75 689	5 254	-	-	-	43 186	1 693 655	1 817 814	124 159	6,8%
Additions to stock	-	6 998	-	-	-	-	-	-	6 998		
Reductions in stock	-	-	-	-	-	-	-	- 6 998	- 6 998		
Net change in stock	-	6 998	-	-	-	-	-	- 6 998	-	6 998	
<i>Net change as % of opening</i>	<i>0,0%</i>	<i>9,2%</i>	<i>0,0%</i>				<i>0,0%</i>	<i>-0,4%</i>	<i>0,0%</i>	<i>5,6%</i>	
Closing stock 2015	30	82 687	5 254	-	-	-	43 186	1 686 657	1 817 814	131 157	7,2%
Opening stock 2015	30	82 687	5 254	-	-	-	43 186	1 686 657	1 817 814	131 157	7,2%
Additions to stock	-	1 872	10 250	-	-	-	-	-	12 122		
Reductions in stock	-	-	-	-	-	-	-	- 12 122	- 12 122		
Net change in stock	-	1 872	10 250	-	-	-	-	- 12 122	-	12 122	
<i>Net change as % of opening</i>	<i>0,0%</i>	<i>2,3%</i>	<i>195,1%</i>				<i>0,0%</i>	<i>-0,7%</i>	<i>0,0%</i>	<i>9,2%</i>	
Closing stock 2020	30	84 559	15 504	-	-	-	43 186	1 674 535	1 817 814	143 279	7,9%

* Note that World Heritage Sites show only the portion that do not overlap with other protected area types (refer to Section 1.2 and Section 2.1).

Extent account for land-based protected areas in KwaZulu-Natal province, 1900–2020, in hectares, based on declaration dates in the South African Protected Areas Database

	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 1900	-	-						9 329 945	9 329 945	-	0,0%
Additions to stock		126 046						-	126 046		
Reductions in stock		-						-126 046	-126 046		
Net change in stock		126 046						-126 046	-	126 046	
<i>Net change as % of opening</i>								-1,4%	0,0%		
Closing stock 1920	-	126 046						9 203 899	9 329 945	126 046	1,4%
	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 1920	-	126 046						9 203 899	9 329 945	126 046	1,4%
Additions to stock	-	73 201						-	73 201		
Reductions in stock	-	-						-73 201	-73 201		
Net change in stock	-	73 201						-73 201	-	73 201	
<i>Net change as % of opening</i>		58,1%						-0,8%	0,0%	58,1%	
Closing stock 1940	-	199 247						9 130 698	9 329 945	199 247	2,1%
	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 1940	-	199 247						9 130 698	9 329 945	199 247	2,1%
Additions to stock	-	20 902						-	20 902		
Reductions in stock	-	-						-20 902	-20 902		
Net change in stock	-	20 902						-20 902	-	20 902	
<i>Net change as % of opening</i>		10,5%						-0,2%	0,0%	10,5%	
Closing stock 1960	-	220 149						9 109 796	9 329 945	220 149	2,4%
	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 1960	-	220 149						9 109 796	9 329 945	220 149	2,4%
Additions to stock	-	6 172						-	6 172		
Reductions in stock	-	-						-6 172	-6 172		
Net change in stock	-	6 172						-6 172	-	6 172	
<i>Net change as % of opening</i>		2,8%						-0,1%	0,0%	2,8%	
Closing stock 1970	-	226 321						9 103 624	9 329 945	226 321	2,4%

Extent account for land-based protected areas in KwaZulu-Natal province, 1900–2020, in hectares, based on declaration dates in the South African Protected Areas Database (continued)

	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 1970	-	226 321		-	-	-		9 103 624	9 329 945	226 321	2,4%
Additions to stock	-	184 937		29 193	108 655	-		-	322 785		
Reductions in stock	-	-		-	-	-		-322 785	-322 785		
Net change in stock	-	184 937		29 193	108 655	-		-322 785	-	322 785	
<i>Net change as % of opening</i>		81,7%						-3,5%	0,0%	142,6%	
Closing stock 1980	-	411 258		29 193	108 655	-		8 780 839	9 329 945	549 106	5,9%
	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 1980	-	411 258	-	29 193	108 655	-		8 780 839	9 329 945	549 106	5,9%
Additions to stock	-	58 825	-	22 700	14 169	-		-	95 694		
Reductions in stock	-	-	-	-	-	-		- 95 694	- 95 694		
Net change in stock	-	58 825	-	22 700	14 169	-		- 95 694	-	95 694	
<i>Net change as % of opening</i>		14,3%		77,8%	13,0%			-1,1%	0,0%	17,4%	
Closing stock 1990	-	470 083	-	51 893	122 824	-		8 685 145	9 329 945	644 800	6,9%
	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 1990	-	470 083	-	51 893	122 824	-	-	8 685 145	9 329 945	644 800	6,9%
Additions to stock	-	67 159	-	4 090	-	-	766	1	72 016		
Reductions in stock	-	-	-	-1	-	-	-	- 72 015	- 72 016		
Net change in stock	-	67 159	-	4 089	-	-	766	- 72 014	-	72 014	
<i>Net change as % of opening</i>		14,3%		7,9%	0,0%			-0,8%	0,0%	11,2%	
Closing stock 2000	-	537 242	-	55 982	122 824	-	766	8 613 131	9 329 945	716 814	7,7%
	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 2000	-	537 242	-	55 982	122 824	-	766	8 613 131	9 329 945	716 814	7,7%
Additions to stock	-	23 750	-	-	-	-	-	-	23 750		
Reductions in stock	-	-	-	-	-	-	-	- 23 750	- 23 750		
Net change in stock	-	23 750	-	-	-	-	-	- 23 750	-	23 750	
<i>Net change as % of opening</i>		4,4%		0,0%	0,0%		0,0%	-0,3%	0,0%	3,3%	
Closing stock 2005	-	560 992	-	55 982	122 824	-	766	8 589 381	9 329 945	740 564	7,9%

Extent account for land-based protected areas in KwaZulu-Natal province, 1900–2020, in hectares, based on declaration dates in the South African Protected Areas Database (concluded)

	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 2005	-	560 992	-	55 982	122 824	-	766	8 589 381	9 329 945	740 564	7,9%
Additions to stock	-	45 750	6	-	-	-	14 544	1	60 301		
Reductions in stock	-	- 1	-	-	-	-	-	- 60 300	- 60 301		
Net change in stock	-	45 749	6	-	-	-	14 544	- 60 299	-	60 299	
<i>Net change as % of opening</i>		<i>8,2%</i>		<i>0,0%</i>	<i>0,0%</i>		<i>1 898,7%</i>	<i>-0,7%</i>	<i>0,0%</i>	<i>8,1%</i>	
Closing stock 2010	-	606 741	6	55 982	122 824	-	15 310	8 529 082	9 329 945	800 863	8,6%
Opening stock 2010	-	606 741	6	55 982	122 824	-	15 310	8 529 082	9 329 945	800 863	8,6%
Additions to stock	-	68 098	21 546	-	-	-	-	-	89 644		
Reductions in stock	-	-	-	-	-	-	-	- 89 644	- 89 644		
Net change in stock	-	68 098	21 546	-	-	-	-	- 89 644	-	89 644	
<i>Net change as % of opening</i>		<i>11,2%</i>	<i>359 100,0%</i>	<i>0,0%</i>	<i>0,0%</i>		<i>0,0%</i>	<i>-1,1%</i>	<i>0,0%</i>	<i>11,2%</i>	
Closing stock 2015	-	674 839	21 552	55 982	122 824	-	15 310	8 439 438	9 329 945	890 507	9,5%
Opening stock 2015	-	674 839	21 552	55 982	122 824	-	15 310	8 439 438	9 329 945	890 507	9,5%
Additions to stock	-	38 986	1	-	1	-	-	-	38 988		
Reductions in stock	-	-	-	-	-	-	-	- 38 988	- 38 988		
Net change in stock	-	38 986	1	-	1	-	-	- 38 988	-	38 988	
<i>Net change as % of opening</i>		<i>5,8%</i>	<i>0,0%</i>	<i>0,0%</i>	<i>0,0%</i>		<i>0,0%</i>	<i>-0,5%</i>	<i>0,0%</i>	<i>4,4%</i>	
Closing stock 2020	-	713 825	21 553	55 982	122 825	-	15 310	8 400 450	9 329 945	929 495	10,0%

* Note that World Heritage Sites show only the portion that do not overlap with other protected area types (refer to Section 1.2 and Section 2.1).

Extent account for land-based protected areas in Limpopo province, 1900–2020, in hectares, based on declaration dates in the South African Protected Areas Database

	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 1900	-	-						12 574 338	12 574 338	-	0,0%
Additions to stock		-						-	-		
Reductions in stock		-						-	-		
Net change in stock		-						-	-	-	
<i>Net change as % of opening</i>								0,0%	0,0%		
Closing stock 1920	-	-						12 574 338	12 574 338	-	0,0%
	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 1920	-	-						12 574 338	12 574 338	-	0,0%
Additions to stock	984 521	1 904						-	986 425		
Reductions in stock	-	-						-986 425	-986 425		
Net change in stock	984 521	1 904						-986 425	-	986 425	
<i>Net change as % of opening</i>								-7,8%	0,0%		
Closing stock 1940	984 521	1 904						11 587 913	12 574 338	986 425	7,8%
	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 1940	984 521	1 904						11 587 913	12 574 338	986 425	7,8%
Additions to stock	-	296 195						-	296 195		
Reductions in stock	-	-						-296 195	-296 195		
Net change in stock	-	296 195						-296 195	-	296 195	
<i>Net change as % of opening</i>	0,0%	15556,5%						-2,6%	0,0%	30,0%	
Closing stock 1960	984 521	298 099						11 291 718	12 574 338	1 282 620	10,2%
	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 1960	984 521	298 099						11 291 718	12 574 338	1 282 620	10,2%
Additions to stock	-	474 887						-	474 887		
Reductions in stock	-	-						-474 887	-474 887		
Net change in stock	-	474 887						-474 887	-	474 887	
<i>Net change as % of opening</i>	0,0%	159,3%						-4,2%	0,0%	37,0%	
Closing stock 1970	984 521	772 986						10 816 831	12 574 338	1 757 507	14,0%

Extent account for land-based protected areas in Limpopo province, 1900–2020, in hectares, based on declaration dates in the South African Protected Areas Database (continued)

	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 1970	984 521	772 986		-	-	-		10 816 831	12 574 338	1 757 507	14,0%
Additions to stock	18 097	42 235		537	19 301	-		3	80 173		
Reductions in stock	-	- 3		-	-	-		- 80 170	- 80 173		
Net change in stock	18 097	42 232		537	19 301	-		- 80 167	-	80 167	
<i>Net change as % of opening</i>	<i>1,8%</i>	<i>5,5%</i>						<i>-0,7%</i>	<i>0,0%</i>	<i>4,6%</i>	
Closing stock 1980	1 002 618	815 218		537	19 301	-		10 736 664	12 574 338	1 837 674	14,6%
	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 1980	1 002 618	815 218	-	537	19 301	-		10 736 664	12 574 338	1 837 674	14,6%
Additions to stock	-	27 553	-	5 961	-	-		1	33 515		
Reductions in stock	-	-	-	-	-1	-		- 33 514	- 33 515		
Net change in stock	-	27 553	-	5 961	-1	-		- 33 513	-	33 513	
<i>Net change as % of opening</i>	<i>0,0%</i>	<i>3,4%</i>		<i>1 110,1%</i>	<i>0,0%</i>			<i>-0,3%</i>	<i>0,0%</i>	<i>1,8%</i>	
Closing stock 1990	1 002 618	842 771	-	6 498	19 300	-		10 703 151	12 574 338	1 871 187	14,9%
	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 1990	1 002 618	842 771	-	6 498	19 300	-	-	10 703 151	12 574 338	1 871 187	14,9%
Additions to stock	73 792	92 496	26 367	598	-	-	-	-	193 253		
Reductions in stock	-	- 2	-	-	-	-	-	-193 251	-193 253		
Net change in stock	73 792	92 494	26 367	598	-	-	-	-193 251	-	193 251	
<i>Net change as % of opening</i>	<i>7,4%</i>	<i>11,0%</i>		<i>9,2%</i>	<i>0,0%</i>			<i>-1,8%</i>	<i>0,0%</i>	<i>10,3%</i>	
Closing stock 2000	1 076 410	935 265	26 367	7 096	19 300	-	-	10 509 900	12 574 338	2 064 438	16,4%
	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 2000	1 076 410	935 265	26 367	7 096	19 300	-	-	10 509 900	12 574 338	2 064 438	16,4%
Additions to stock	867	27 585	-	-	-	-	-	-	28 452		
Reductions in stock	-	-	-	-	-	-	-	- 28 452	- 28 452		
Net change in stock	867	27 585	-	-	-	-	-	- 28 452	-	28 452	
<i>Net change as % of opening</i>	<i>0,1%</i>	<i>2,9%</i>	<i>0,0%</i>	<i>0,0%</i>	<i>0,0%</i>			<i>-0,3%</i>	<i>0,0%</i>	<i>1,4%</i>	
Closing stock 2005	1 077 277	962 850	26 367	7 096	19 300	-	-	10 481 448	12 574 338	2 092 890	16,6%

Extent account for land-based protected areas in Limpopo province, 1900–2020, in hectares, based on declaration dates in the South African Protected Areas Database (concluded)

	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 2005	1 077 277	962 850	26 367	7 096	19 300	-	-	10 481 448	12 574 338	2 092 890	16,6%
Additions to stock	-	13 285	-	-	-	-	2 208	-	15 493	15 493	0,7%
Reductions in stock	-	-	-	-	-	-	-	- 15 493	- 15 493		
Net change in stock	-	13 285	-	-	-	-	2 208	- 15 493	-		
<i>Net change as % of opening</i>	<i>0,0%</i>	<i>1,4%</i>	<i>0,0%</i>	<i>0,0%</i>	<i>0,0%</i>			<i>-0,1%</i>	<i>0,0%</i>		
Closing stock 2010	1 077 277	976 135	26 367	7 096	19 300	-	2 208	10 465 955	12 574 338	2 108 383	16,8%

	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	1 077 277	976 135	26 367	7 096	19 300	-	2 208	10 465 955	12 574 338	2 108 383	16,8%
Additions to stock	-	60 296	504	-	-	-	-	-	60 800	60 800	2,9%
Reductions in stock	-	-	-	-	-	-	-	- 60 800	- 60 800		
Net change in stock	-	60 296	504	-	-	-	-	- 60 800	-		
<i>Net change as % of opening</i>	<i>0,0%</i>	<i>6,2%</i>	<i>1,9%</i>	<i>0,0%</i>	<i>0,0%</i>		<i>0,0%</i>	<i>-0,6%</i>	<i>0,0%</i>		
Closing stock 2015	1 077 277	1 036 431	26 871	7 096	19 300	-	2 208	10 405 155	12 574 338	2 169 183	17,3%

	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 2015	1 077 277	1 036 431	26 871	7 096	19 300	-	2 208	10 405 155	12 574 338	2 169 183	17,3%
Additions to stock	1	160 175	100 177	-	-	-	-	-	260 353	260 353	12,0%
Reductions in stock	-	-	-	-	-	-	-	-260 353	-260 353		
Net change in stock	1	160 175	100 177	-	-	-	-	-260 353	-		
<i>Net change as % of opening</i>	<i>0,0%</i>	<i>15,5%</i>	<i>372,8%</i>	<i>0,0%</i>	<i>0,0%</i>		<i>0,0%</i>	<i>-2,5%</i>	<i>0,0%</i>		
Closing stock 2020	1 077 278	1 196 606	127 048	7 096	19 300	-	2 208	10 144 802	12 574 338	2 429 536	19,3%

* Note that World Heritage Sites show only the portion that do not overlap with other protected area types (refer to Section 1.2 and Section 2.1).

Extent account for land-based protected areas in Mpumalanga province, 1900–2020, in hectares, based on declaration dates in the South African Protected Areas Database

	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 1900	-	-						7 649 527	7 649 527	-	0,0%
Additions to stock		-						-	-		
Reductions in stock		-						-	-		
Net change in stock		-						-	-	-	
<i>Net change as % of opening</i>								0,0%	0,0%		
Closing stock 1920	-	-						7 649 527	7 649 527	-	0,0%
	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 1920	-	-						7 649 527	7 649 527	-	0,0%
Additions to stock	935 704	-						-	935 704		
Reductions in stock	-	-						-935 704	-935 704		
Net change in stock	935 704	-						-935 704	-	935 704	
<i>Net change as % of opening</i>								-12,2%	0,0%		
Closing stock 1940	935 704	-						6 713 823	7 649 527	935 704	12,2%
	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 1940	935 704	-						6 713 823	7 649 527	935 704	12,2%
Additions to stock	-	63 748						-	63 748		
Reductions in stock	-	-						- 63 748	- 63 748		
Net change in stock	-	63 748						- 63 748	-	63 748	
<i>Net change as % of opening</i>	0,0%							-0,9%	0,0%	6,8%	
Closing stock 1960	935 704	63 748						6 650 075	7 649 527	999 452	13,1%
	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 1960	935 704	63 748						6 650 075	7 649 527	999 452	13,1%
Additions to stock	3	211 555						-	211 558		
Reductions in stock	- 5	-						-211 553	-211 558		
Net change in stock	- 2	211 555						-211 553	-	211 553	
<i>Net change as % of opening</i>	0,0%	331,9%						-3,2%	0,0%	21,2%	
Closing stock 1970	935 702	275 303						6 438 522	7 649 527	1 211 005	15,8%

Extent account for land-based protected areas in Mpumalanga province, 1900–2020, in hectares, based on declaration dates in the South African Protected Areas Database (continued)

	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 1970	935 702	275 303		-	-	-		6 438 522	7 649 527	1 211 005	15,8%
Additions to stock	2	95 375		1 554	-	3 671		-	100 602		
Reductions in stock	-	-		-	-	-		-100 602	-100 602		
Net change in stock	2	95 375		1 554	-	3 671		-100 602	-	100 602	
<i>Net change as % of opening</i>	<i>0,0%</i>	<i>34,6%</i>						<i>-1,6%</i>	<i>0,0%</i>	<i>8,3%</i>	
Closing stock 1980	935 704	370 678		1 554	-	3 671		6 337 920	7 649 527	1 311 607	17,1%
	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 1980	935 704	370 678	-	1 554	-	3 671		6 337 920	7 649 527	1 311 607	17,1%
Additions to stock	-	70 506	-	541	-	-		-	71 047		
Reductions in stock	-	-	-	-	-	-		- 71 047	- 71 047		
Net change in stock	-	70 506	-	541	-	-		- 71 047	-	71 047	
<i>Net change as % of opening</i>	<i>0,0%</i>	<i>19,0%</i>		<i>34,8%</i>		<i>0,0%</i>		<i>-1,1%</i>	<i>0,0%</i>	<i>5,4%</i>	
Closing stock 1990	935 704	441 184	-	2 095	-	3 671		6 266 873	7 649 527	1 382 654	18,1%
	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 1990	935 704	441 184	-	2 095	-	3 671	-	6 266 873	7 649 527	1 382 654	18,1%
Additions to stock	-	104 692	-	1 033	-	-	-	-	105 725		
Reductions in stock	-	-	-	-	-	-	-	-105 725	-105 725		
Net change in stock	-	104 692	-	1 033	-	-	-	-105 725	-	105 725	
<i>Net change as % of opening</i>	<i>0,0%</i>	<i>23,7%</i>		<i>49,3%</i>		<i>0,0%</i>		<i>-1,7%</i>	<i>0,0%</i>	<i>7,6%</i>	
Closing stock 2000	935 704	545 876	-	3 128	-	3 671	-	6 161 148	7 649 527	1 488 379	19,5%
	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 2000	935 704	545 876	-	3 128	-	3 671	-	6 161 148	7 649 527	1 488 379	19,5%
Additions to stock	-	17 938	-	-	-	-	-	-	17 938		
Reductions in stock	-	-	-	-	-	-	-	- 17 938	- 17 938		
Net change in stock	-	17 938	-	-	-	-	-	- 17 938	-	17 938	
<i>Net change as % of opening</i>	<i>0,0%</i>	<i>3,3%</i>		<i>0,0%</i>		<i>0,0%</i>		<i>-0,3%</i>	<i>0,0%</i>	<i>1,2%</i>	
Closing stock 2005	935 704	563 814	-	3 128	-	3 671	-	6 143 210	7 649 527	1 506 317	19,7%

Extent account for land-based protected areas in Mpumalanga province, 1900–2020, in hectares, based on declaration dates in the South African Protected Areas Database (concluded)

	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 2005	935 704	563 814	-	3 128	-	3 671	-	6 143 210	7 649 527	1 506 317	19,7%
Additions to stock	-	-	26 047	-	-	-	-	-	26 047		
Reductions in stock	-	-	-	-	-	-	-	- 26 047	- 26 047		
Net change in stock	-	-	26 047	-	-	-	-	- 26 047	-	26 047	
<i>Net change as % of opening</i>	<i>0,0%</i>	<i>0,0%</i>		<i>0,0%</i>		<i>0,0%</i>		<i>-0,4%</i>	<i>0,0%</i>	1,7%	
Closing stock 2010	935 704	563 814	26 047	3 128	-	3 671	-	6 117 163	7 649 527	1 532 364	20,0%
Opening stock 2010	935 704	563 814	26 047	3 128	-	3 671	-	6 117 163	7 649 527	1 532 364	20,0%
Additions to stock	-	9 444	66 346	15 298	-	-	-	-	91 088		
Reductions in stock	-	-	-	-	-	-	-	- 91 088	- 91 088		
Net change in stock	-	9 444	66 346	15 298	-	-	-	- 91 088	-	91 088	
<i>Net change as % of opening</i>	<i>0,0%</i>	<i>1,7%</i>	<i>254,7%</i>	<i>489,1%</i>		<i>0,0%</i>		<i>-1,5%</i>	<i>0,0%</i>	5,9%	
Closing stock 2015	935 704	573 258	92 393	18 426	-	3 671	-	6 026 075	7 649 527	1 623 452	21,2%
Opening stock 2015	935 704	573 258	92 393	18 426	-	3 671	-	6 026 075	7 649 527	1 623 452	21,2%
Additions to stock	-	4 296	14 126	-	-	-	38 959	-	57 381		
Reductions in stock	-	-	-	-	-	-	-	- 57 381	- 57 381		
Net change in stock	-	4 296	14 126	-	-	-	38 959	- 57 381	-	57 381	
<i>Net change as % of opening</i>	<i>0,0%</i>	<i>0,7%</i>	<i>15,3%</i>	<i>0,0%</i>		<i>0,0%</i>		<i>-1,0%</i>	<i>0,0%</i>	3,5%	
Closing stock 2020	935 704	577 554	106 519	18 426	-	3 671	38 959	5 968 694	7 649 527	1 680 833	22,0%

* Note that World Heritage Sites show only the portion that do not overlap with other protected area types (refer to Section 1.2 and Section 2.1).

Extent account for land-based protected areas in North West province, 1900–2020, in hectares, based on declaration dates in the South African Protected Areas Database

	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 1900	-	-						10 487 080	10 487 080	-	0,0%
Additions to stock		-						-	-		
Reductions in stock		-						-	-		
Net change in stock		-						-	-	-	
<i>Net change as % of opening</i>								0,0%	0,0%		
Closing stock 1920	-	-						10 487 080	10 487 080	-	0,0%
Opening stock 1920	-	-						10 487 080	10 487 080	-	0,0%
Additions to stock	-	-						-	-		
Reductions in stock	-	-						-	-		
Net change in stock	-	-						-	-	-	
<i>Net change as % of opening</i>								0,0%	0,0%		
Closing stock 1940	-	-						10 487 080	10 487 080	-	0,0%
Opening stock 1940	-	-						10 487 080	10 487 080	-	0,0%
Additions to stock	-	45 807						-	45 807		
Reductions in stock	-	-						- 45 807	- 45 807		
Net change in stock	-	45 807						- 45 807	-	45 807	
<i>Net change as % of opening</i>								-0,4%	0,0%		
Closing stock 1960	-	45 807						10 441 273	10 487 080	45 807	0,4%
Opening stock 1960	-	45 807						10 441 273	10 487 080	45 807	0,4%
Additions to stock	-	83 559						-	83 559		
Reductions in stock	-	-						- 83 559	- 83 559		
Net change in stock	-	83 559						- 83 559	-	83 559	
<i>Net change as % of opening</i>		182,4%						-0,8%	0,0%	182,4%	
Closing stock 1970	-	129 366						10 357 714	10 487 080	129 366	1,2%

Extent account for land-based protected areas in North West province, 1900–2020, in hectares, based on declaration dates in the South African Protected Areas Database (continued)

	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 1970	-	129 366		-	-	-		10 357 714	10 487 080	129 366	1,2%
Additions to stock	-	39 470		-	-	-		-	39 470		
Reductions in stock	-	-		-	-	-		- 39 470	- 39 470		
Net change in stock	-	39 470		-	-	-		- 39 470	-	39 470	
<i>Net change as % of opening</i>		30,5%						-0,4%	0,0%	30,5%	
Closing stock 1980	-	168 836		-	-	-		10 318 244	10 487 080	168 836	1,6%
	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 1980	-	168 836	-	-	-	-		10 318 244	10 487 080	168 836	1,6%
Additions to stock	-	65 145	-	-	-	-		-	65 145		
Reductions in stock	-	-	-	-	-	-		- 65 145	- 65 145		
Net change in stock	-	65 145	-	-	-	-		- 65 145	-	65 145	
<i>Net change as % of opening</i>		38,6%						-0,6%	0,0%	38,6%	
Closing stock 1990	-	233 981	-	-	-	-		10 253 099	10 487 080	233 981	2,2%
	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 1990	-	233 981	-	-	-	-	-	10 253 099	10 487 080	233 981	2,2%
Additions to stock	-	82 033	27 746	-	-	-	-	-	109 779		
Reductions in stock	-	-	-	-	-	-	-	-109 779	-109 779		
Net change in stock	-	82 033	27 746	-	-	-	-	-109 779	-	109 779	
<i>Net change as % of opening</i>		35,1%						-1,1%	0,0%	46,9%	
Closing stock 2000	-	316 014	27 746	-	-	-	-	10 143 320	10 487 080	343 760	3,3%
	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 2000	-	316 014	27 746	-	-	-	-	10 143 320	10 487 080	343 760	3,3%
Additions to stock	-	2	-	-	-	-	-	-	2		
Reductions in stock	-	-	-	-	-	-	-	- 2	- 2		
Net change in stock	-	2	-	-	-	-	-	- 2	-	2	
<i>Net change as % of opening</i>		0,0%	0,0%					0,0%	0,0%	0,0%	
Closing stock 2005	-	316 016	27 746	-	-	-	-	10 143 318	10 487 080	343 762	3,3%

Extent account for land-based protected areas in North West province, 1900–2020, in hectares, based on declaration dates in the South African Protected Areas Database (concluded)

	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 2005	-	316 016	27 746	-	-	-	-	10 143 318	10 487 080	343 762	3,3%
Additions to stock	-	-	-	-	-	-	10 494	-	10 494		
Reductions in stock	-	-	-	-	-	-	-	- 10 494	- 10 494		
Net change in stock	-	-	-	-	-	-	10 494	- 10 494	-	10 494	
<i>Net change as % of opening</i>		0,0%	0,0%					-0,1%	0,0%	3,1%	
Closing stock 2010	-	316 016	27 746	-	-	-	10 494	10 132 824	10 487 080	354 256	3,4%
Opening Stock 2010	-	316 016	27 746	-	-	-	10 494	10 132 824	10 487 080	354 256	3,4%
Additions to stock	-	-	-	-	-	-	-	-	-		
Reductions in stock	-	-	-	-	-	-	-	-	-		
Net change in stock	-	-	-	-	-	-	-	-	-	-	
<i>Net change as % of opening</i>		0,0%	0,0%				0,0%	0,0%	0,0%	0,0%	
Closing stock 2015	-	316 016	27 746	-	-	-	10 494	10 132 824	10 487 080	354 256	3,4%
Opening Stock 2015	-	316 016	27 746	-	-	-	10 494	10 132 824	10 487 080	354 256	3,4%
Additions to stock	-	16 312	11 683	-	-	-	-	-	27 995		
Reductions in stock	-	-	-	-	-	-	-	- 27 995	- 27 995		
Net change in stock	-	16 312	11 683	-	-	-	-	- 27 995	-	27 995	
<i>Net change as % of opening</i>		5,2%	42,1%				0,0%	-0,3%	0,0%	7,9%	
Closing stock 2020	-	332 328	39 429	-	-	-	10 494	10 104 829	10 487 080	382 251	3,6%

* Note that World Heritage Sites show only the portion that do not overlap with other protected area types (refer to Section 1.2 and Section 2.1).

Extent account for land-based protected areas in the Northern Cape province, 1900–2020, in hectares, based on declaration dates in the South African Protected Areas Database

	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 1900	-	-						37 285 988	37 285 988	-	0,0%
Additions to stock		-						-	-		
Reductions in stock		-						-	-		
Net change in stock		-						-	-	-	
<i>Net change as % of opening</i>								0,0%	0,0%		
Closing stock 1920	-	-						37 285 988	37 285 988	-	0,0%
	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 1920	-	-						37 285 988	37 285 988	-	0,0%
Additions to stock	957 782	-						-	957 782		
Reductions in stock	-	-						-957 782	-957 782		
Net change in stock	957 782	-						-957 782	-	957 782	
<i>Net change as % of opening</i>								-2,6%	0,0%		
Closing stock 1940	957 782	-						36 328 206	37 285 988	957 782	2,6%
	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 1940	957 782	-						36 328 206	37 285 988	957 782	2,6%
Additions to stock	-	141						-	141		
Reductions in stock	-	-						-141	-141		
Net change in stock	-	141						-141	-	141	
<i>Net change as % of opening</i>	0,0%							0,0%	0,0%	0,0%	
Closing stock 1960	957 782	141						36 328 065	37 285 988	957 923	2,6%
	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 1960	957 782	141						36 328 065	37 285 988	957 923	2,6%
Additions to stock	48 236	1 622						-	49 858		
Reductions in stock	-	-						- 49 858	- 49 858		
Net change in stock	48 236	1 622						- 49 858	-	49 858	
<i>Net change as % of opening</i>	5,0%	1 150,4%						-0,1%	0,0%	5,2%	
Closing stock 1970	1 006 018	1 763						36 278 207	37 285 988	1 007 781	2,7%

Extent account for land-based protected areas in the Northern Cape province, 1900–2020, in hectares, based on declaration dates in the South African Protected Areas Database (continued)

	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 1970	1 006 018	1 763		-	-	-		36 278 207	37 285 988	1 007 781	2,7%
Additions to stock	16 270	22 674		-	-	-		-	38 944		
Reductions in stock	-	-		-	-	-		- 38 944	- 38 944		
Net change in stock	16 270	22 674		-	-	-		- 38 944	-	38 944	
<i>Net change as % of opening</i>	<i>1,6%</i>	<i>1 286,1%</i>						<i>-0,1%</i>	<i>0,0%</i>	<i>3,9%</i>	
Closing stock 1980	1 022 288	24 437		-	-	-		36 239 263	37 285 988	1 046 725	2,8%
Opening Stock 1980	1 022 288	24 437	-	-	-	-		36 239 263	37 285 988	1 046 725	2,8%
Additions to stock	99 169	38 415	-	-	-	-		-	137 584		
Reductions in stock	-	-	-	-	-	-		-137 584	-137 584		
Net change in stock	99 169	38 415	-	-	-	-		-137 584	-	137 584	
<i>Net change as % of opening</i>	<i>9,7%</i>	<i>157,2%</i>						<i>-0,4%</i>	<i>0,0%</i>	<i>13,1%</i>	
Closing stock 1990	1 121 457	62 852	-	-	-	-		36 101 679	37 285 988	1 184 309	3,2%
Opening Stock 1990	1 121 457	62 852	-	-	-	-	-	36 101 679	37 285 988	1 184 309	3,2%
Additions to stock	170 233	26 440	-	-	-	-	-	-	196 673		
Reductions in stock	-	-	-	-	-	-	-	-196 673	-196 673		
Net change in stock	170 233	26 440	-	-	-	-	-	-196 673	-	196 673	
<i>Net change as % of opening</i>	<i>15,2%</i>	<i>42,1%</i>						<i>-0,5%</i>	<i>0,0%</i>	<i>16,6%</i>	
Closing stock 2000	1 291 690	89 292	-	-	-	-	-	35 905 006	37 285 988	1 380 982	3,7%
Opening Stock 2000	1 291 690	89 292	-	-	-	-	-	35 905 006	37 285 988	1 380 982	3,7%
Additions to stock	136 582	81	-	-	-	-	-	-	136 663		
Reductions in stock	-	-	-	-	-	-	-	-136 663	-136 663		
Net change in stock	136 582	81	-	-	-	-	-	-136 663	-	136 663	
<i>Net change as % of opening</i>	<i>10,6%</i>	<i>0,1%</i>						<i>-0,4%</i>	<i>0,0%</i>	<i>9,9%</i>	
Closing stock 2005	1 428 272	89 373	-	-	-	-	-	35 768 343	37 285 988	1 517 645	4,1%

Extent account for land-based protected areas in the Northern Cape province, 1900–2020, in hectares, based on declaration dates in the South African Protected Areas Database (concluded)

	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 2005	1 428 272	89 373	-	-	-	-	-	35 768 343	37 285 988	1 517 645	4,1%
Additions to stock	25 972	-	-	-	-	-	142 462	-	168 434		
Reductions in stock	- 2	- 1	-	-	-	-	-	-168 431	-168 434		
Net change in stock	25 970	- 1	-	-	-	-	142 462	-168 431	-	168 431	
<i>Net change as % of opening</i>	<i>1,8%</i>	<i>0,0%</i>						<i>-0,5%</i>	<i>0,0%</i>	<i>11,1%</i>	
Closing stock 2010	1 454 242	89 372	-	-	-	-	142 462	35 599 912	37 285 988	1 686 076	4,5%
	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	1 454 242	89 372	-	-	-	-	142 462	35 599 912	37 285 988	1 686 076	4,5%
Additions to stock	-	-	-	-	-	-	-	-	-		
Reductions in stock	-	-	-	-	-	-	-	-	-		
Net change in stock	-	-	-	-	-	-	-	-	-	-	
<i>Net change as % of opening</i>	<i>0,0%</i>	<i>0,0%</i>					<i>0,0%</i>	<i>0,0%</i>	<i>0,0%</i>	<i>0,0%</i>	
Closing stock 2015	1 454 242	89 372	-	-	-	-	142 462	35 599 912	37 285 988	1 686 076	4,5%
	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 2015	1 454 242	89 372	-	-	-	-	142 462	35 599 912	37 285 988	1 686 076	4,5%
Additions to stock	134 956	221 640	-	656	-	-	-	-	357 252		
Reductions in stock	-	-	-	-	-	-	-	-357 252	-357 252		
Net change in stock	134 956	221 640	-	656	-	-	-	-357 252	-	357 252	
<i>Net change as % of opening</i>	<i>9,3%</i>	<i>248,0%</i>					<i>0,0%</i>	<i>-1,0%</i>	<i>0,0%</i>	<i>21,2%</i>	
Closing stock 2020	1 589 198	311 012	-	656	-	-	142 462	35 242 660	37 285 988	2 043 328	5,5%

* Note that World Heritage Sites show only the portion that do not overlap with other protected area types (refer to Section 1.2 and Section 2.1).

Extent account for land-based protected areas in the Western Cape province, 1900–2020, in hectares, based on declaration dates in the South African Protected Areas Database

	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 1900	-	-						12 955 045	12 955 045	-	0,0%
Additions to stock		1						-	1		
Reductions in stock		-						- 1	- 1		
Net change in stock		1						- 1	-		
<i>Net change as % of opening</i>								0,0%	0,0%		
Closing stock 1920	-	1						12 955 044	12 955 045	1	0,0%
	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 1920	-	1						12 955 044	12 955 045	1	0,0%
Additions to stock	705	103						-	808		
Reductions in stock	-	-						-808	-808		
Net change in stock	705	103						-808	-		
<i>Net change as % of opening</i>		10300,0%						0,0%	0,0%		
Closing stock 1940	705	104						12 954 236	12 955 045	809	0,0%
	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 1940	705	104						12 954 236	12 955 045	809	0,0%
Additions to stock	-	406						-	406		
Reductions in stock	-	-						-406	-406		
Net change in stock	-	406						-406	-	406	
<i>Net change as % of opening</i>	0,0%	390,4%						0,0%	0,0%	50,2%	
Closing stock 1960	705	510						12 953 830	12 955 045	1 215	0,0%
	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 1960	705	510						12 953 830	12 955 045	1 215	0,0%
Additions to stock	103 727	1 919						-	105 646		
Reductions in stock	-	-						-105 646	-105 646		
Net change in stock	103 727	1 919						-105 646	-	105 646	
<i>Net change as % of opening</i>	14 713,0%	376,3%						-0,8%	0,0%	8 695,1%	
Closing stock 1970	104 432	2 429						12 848 184	12 955 045	106 861	0,8%

Extent account for land-based protected areas in the Western Cape province, 1900–2020, in hectares, based on declaration dates in the South African Protected Areas Database (continued)

	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 1970	104 432	2 429		-	-	-		12 848 184	12 955 045	106 861	0,8%
Additions to stock	102 622	410 780		27 898	79 729	357 845		1	978 875		
Reductions in stock	-	-		-	-	-		-978 875	-978 875		
Net change in stock	102 622	410 780		27 898	79 729	357 845		-978 874	-	978 874	
<i>Net change as % of opening</i>	<i>98,3%</i>	<i>16911,5%</i>						<i>-7,6%</i>	<i>0,0%</i>	<i>916,0%</i>	
Closing stock 1980	207 054	413 209		27 898	79 729	357 845		11 869 310	12 955 045	1 085 735	8,4%
	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 1980	207 054	413 209	-	27 898	79 729	357 845		11 869 310	12 955 045	1 085 735	8,4%
Additions to stock	90 760	124 854	12 022	27 505	33 834	195 762		3	484 740		
Reductions in stock	-	-2	-	-	- 1	- 2		-484 735	-484 740		
Net change in stock	90 760	124 852	12 022	27 505	33 833	195 760		-484 732	-	484 732	
<i>Net change as % of opening</i>	<i>43,8%</i>	<i>30,2%</i>		<i>98,6%</i>	<i>42,4%</i>	<i>54,7%</i>		<i>-4,1%</i>	<i>0,0%</i>	<i>44,6%</i>	
Closing stock 1990	297 814	538 061	12 022	55 403	113 562	553 605		11 384 578	12 955 045	1 570 467	12,1%
	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 1990	297 814	538 061	12 022	55 403	113 562	553 605	-	11 384 578	12 955 045	1 570 467	12,1%
Additions to stock	35 373	122 232	4 418	-	-	2	-	-	162 025		
Reductions in stock	-	-1	-	-	-	-	-	-162 024	-162 025		
Net change in stock	35 373	122 231	4 418	-	-	2	-	-162 024	-	162 024	
<i>Net change as % of opening</i>	<i>11,9%</i>	<i>22,7%</i>	<i>36,7%</i>	<i>0,0%</i>	<i>0,0%</i>	<i>0,0%</i>		<i>-1,4%</i>	<i>0,0%</i>	<i>10,3%</i>	
Closing stock 2000	333 187	660 292	16 440	55 403	113 562	553 607	-	11 222 554	12 955 045	1 732 491	13,4%
	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 2000	333 187	660 292	16 440	55 403	113 562	553 607	-	11 222 554	12 955 045	1 732 491	13,4%
Additions to stock	1	32 736	-	-	-	-	-	1	32 738		
Reductions in stock	-	-1	-	-	-	- 1	-	- 32 736	- 32 738		
Net change in stock	1	32 735	-	-	-	- 1	-	- 32 735	-	32 735	
<i>Net change as % of opening</i>	<i>0,0%</i>	<i>5,0%</i>	<i>0,0%</i>	<i>0,0%</i>	<i>0,0%</i>	<i>0,0%</i>		<i>-0,3%</i>	<i>0,0%</i>	<i>1,9%</i>	
Closing stock 2005	333 188	693 027	16 440	55 403	113 562	553 606	-	11 189 819	12 955 045	1 765 226	13,6%

Extent account for land-based protected areas in the Western Cape province, 1900–2020, in hectares, based on declaration dates in the South African Protected Areas Database (concluded)

	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 2005	333 188	693 027	16 440	55 403	113 562	553 606	-	11 189 819	12 955 045	1 765 226	13,6%
Additions to stock	845	28 022	-	-	-	-	463	-	29 330		
Reductions in stock	-	-	-	-	-	-	-	- 29 330	- 29 330		
Net change in stock	845	28 022	-	-	-	-	463	- 29 330	-	29 330	
<i>Net change as % of opening</i>	<i>0,3%</i>	<i>4,0%</i>	<i>0,0%</i>	<i>0,0%</i>	<i>0,0%</i>	<i>0,0%</i>		<i>-0,3%</i>	<i>0,0%</i>	<i>1,7%</i>	
Closing stock 2010	334 033	721 049	16 440	55 403	113 562	553 606	463	11 160 489	12 955 045	1 794 556	13,9%
	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	334 033	721 049	16 440	55 403	113 562	553 606	463	11 160 489	12 955 045	1 794 556	13,9%
Additions to stock	-	123 604	5 179	-	-	3	-	-	128 786		
Reductions in stock	-	-3	-	-	-	-	-	-128 783	-128 786		
Net change in stock	-	123 601	5 179	-	-	3	-	-128 783	-	128 783	
<i>Net change as % of opening</i>	<i>0,0%</i>	<i>17,1%</i>	<i>31,5%</i>	<i>0,0%</i>	<i>0,0%</i>	<i>0,0%</i>	<i>0,0%</i>	<i>-1,2%</i>	<i>0,0%</i>	<i>7,2%</i>	
Closing stock 2015	334 033	844 650	21 619	55 403	113 562	553 609	463	11 031 706	12 955 045	1 923 339	14,8%
	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 2015	334 033	844 650	21 619	55 403	113 562	553 609	463	11 031 706	12 955 045	1 923 339	14,8%
Additions to stock	5	26 216	588	47	-	3	-	-	26 859		
Reductions in stock	-	-	-	-	-	-	-	- 26 859	- 26 859		
Net change in stock	5	26 216	588	47	-	3	-	- 26 859	-	26 859	
<i>Net change as % of opening</i>	<i>0,0%</i>	<i>3,1%</i>	<i>2,7%</i>	<i>0,1%</i>	<i>0,0%</i>	<i>0,0%</i>	<i>0,0%</i>	<i>-0,2%</i>	<i>0,0%</i>	<i>1,4%</i>	
Closing stock 2020	334 038	870 866	22 207	55 450	113 562	553 612	463	11 004 847	12 955 045	1 950 198	15,1%

* Note that World Heritage Sites show only the portion that do not overlap with other protected area types (refer to Section 1.2 and Section 2.1).

APPENDIX 4. EXTENT ACCOUNT FOR LAND-BASED PROTECTED AREAS PER BIOME

Extent account for land-based protected areas in the Albany Thicket biome, 1900–2020, in hectares, based on declaration dates in the South African Protected Areas Database

	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 1900	-	-						2 912 590	2 912 590	-	0,0%
Additions to stock		-						-	-		
Reductions in stock		-						-	-		
Net change in stock		-						-	-	-	
<i>Net change as % of opening</i>								0,0%	0,0%		
Closing stock 1920	-	-						2 912 590	2 912 590	-	0,0%

	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 1920	-	-			-	-	-	2 912 590	2 912 590	-	0,0%
Additions to stock	80 347	-			-	-	-	-	80 347		
Reductions in stock	-	-			-	-	-	- 80 347	- 80 347		
Net change in stock	80 347	-			-	-	-	- 80 347	-	80 347	
<i>Net change as % of opening</i>								-2,8%	0,0%		
Closing stock 1940	80 347	-			-	-	-	2 832 243	2 912 590	80 347	2,8%

	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 1940	80 347	-			-	-	-	2 832 243	2 912 590	80 347	2,8%
Additions to stock	-	-			-	-	-	-	-		
Reductions in stock	-	-			-	-	-	-	-		
Net change in stock	-	-			-	-	-	-	-	-	
<i>Net change as % of opening</i>	0,0%							0,0%	0,0%	0,0%	
Closing stock 1960	80 347	-			-	-	-	2 832 243	2 912 590	80 347	2,8%

Extent account for land-based protected areas in the Albany Thicket biome, 1900–2020, in hectares, based on declaration dates in the South African Protected Areas Database (continued)

	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 1960	80 347	-			-	-	-	2 832 243	2 912 590	80 347	2,8%
Additions to stock	-	1 410			-	-	-	-	1 410		
Reductions in stock	-	-			-	-	-	- 1 410	- 1 410		
Net change in stock	-	1 410			-	-	-	- 1 410	-	1 410	
<i>Net change as % of opening</i>	<i>0,0%</i>							<i>0,0%</i>	<i>0,0%</i>	<i>1,8%</i>	
Closing stock 1970	80 347	1 410			-	-	-	2 830 833	2 912 590	81 757	2,8%
	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 1970	80 347	1 410		-	-	-		2 830 833	2 912 590	81 757	2,8%
Additions to stock	18 373	23 249		460	2 763	573		1	45 419		
Reductions in stock	- 1	-		-	-	-		- 45 418	- 45 419		
Net change in stock	18 372	23 249		460	2 763	573		- 45 417	-	45 417	
<i>Net change as % of opening</i>	<i>22,9%</i>	<i>1 648,9%</i>						<i>-1,6%</i>	<i>0,0%</i>	<i>55,6%</i>	
Closing stock 1980	98 719	24 659		460	2 763	573		2 785 416	2 912 590	127 174	4,4%
	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 1980	98 719	24 659	-	460	2 763	573		2 785 416	2 912 590	127 174	4,4%
Additions to stock	-	27 158	-	4 360	-	134		-	31 652		
Reductions in stock	-	-	-	-	-	-		- 31 652	- 31 652		
Net change in stock	-	27 158	-	4 360	-	134		- 31 652	-	31 652	
<i>Net change as % of opening</i>	<i>0,0%</i>	<i>110,1%</i>		<i>947,8%</i>	<i>0,0%</i>	<i>23,4%</i>		<i>-1,1%</i>	<i>0,0%</i>	<i>24,9%</i>	
Closing stock 1990	98 719	51 817	-	4 820	2 763	707		2 753 764	2 912 590	158 826	5,5%
	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 1990	98 719	51 817	-	4 820	2 763	707	-	2 753 764	2 912 590	158 826	5,5%
Additions to stock	-	29 105	-	-	-	-	-	-	29 105		
Reductions in stock	-	-	-	-	-	-	-	- 29 105	- 29 105		
Net change in stock	-	29 105	-	-	-	-	-	- 29 105	-	29 105	
<i>Net change as % of opening</i>	<i>0,0%</i>	<i>56,2%</i>		<i>0,0%</i>	<i>0,0%</i>	<i>0,0%</i>		<i>-1,1%</i>	<i>0,0%</i>	<i>18,3%</i>	
Closing stock 2000	98 719	80 922	-	4 820	2 763	707	-	2 724 659	2 912 590	187 931	6,5%

Extent account for land-based protected areas in the Albany Thicket biome, 1900–2020, in hectares, based on declaration dates in the South African Protected Areas Database (concluded)

	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 2000	98 719	80 922	-	4 820	2 763	707	-	2 724 659	2 912 590	187 931	6,5%
Additions to stock	17 426	497	-	-	-	-	-	-	17 923	17 923	9,5%
Reductions in stock	-	-	-	-	-	-	-	- 17 923	- 17 923		
Net change in stock	17 426	497	-	-	-	-	-	- 17 923	-		
<i>Net change as % of opening</i>	<i>17,7%</i>	<i>0,6%</i>		<i>0,0%</i>	<i>0,0%</i>	<i>0,0%</i>		<i>-0,7%</i>	<i>0,0%</i>		
Closing stock 2005	116 145	81 419	-	4 820	2 763	707	-	2 706 736	2 912 590	205 854	7,1%
Opening stock 2005	116 145	81 419	-	4 820	2 763	707	-	2 706 736	2 912 590	205 854	7,1%
Additions to stock	-	3 293	-	-	-	-	-	-	3 293	3 293	1,6%
Reductions in stock	-	-	-	-	-	-	-	- 3 293	- 3 293		
Net change in stock	-	3 293	-	-	-	-	-	- 3 293	-		
<i>Net change as % of opening</i>	<i>0,0%</i>	<i>4,0%</i>		<i>0,0%</i>	<i>0,0%</i>	<i>0,0%</i>		<i>-0,1%</i>	<i>0,0%</i>		
Closing stock 2010	116 145	84 712	-	4 820	2 763	707	-	2 703 443	2 912 590	209 147	7,2%
Opening stock 2010	116 145	84 712	-	4 820	2 763	707	-	2 703 443	2 912 590	209 147	7,2%
Additions to stock	-	4 476	51 070	-	-	-	-	-	55 546	55 546	26,6%
Reductions in stock	-	-	-	-	-	-	-	- 55 546	- 55 546		
Net change in stock	-	4 476	51 070	-	-	-	-	- 55 546	-		
<i>Net change as % of opening</i>	<i>0,0%</i>	<i>5,3%</i>		<i>0,0%</i>	<i>0,0%</i>	<i>0,0%</i>		<i>-2,1%</i>	<i>0,0%</i>		
Closing stock 2015	116 145	89 188	51 070	4 820	2 763	707	-	2 647 897	2 912 590	264 693	9,1%
Opening stock 2015	116 145	89 188	51 070	4 820	2 763	707	-	2 647 897	2 912 590	264 693	9,1%
Additions to stock	1	16 025	94 826	1 537	-	-	-	-	112 389	112 389	42,5%
Reductions in stock	-	-	-	-	-	-	-	- 112 389	- 112 389		
Net change in stock	1	16 025	94 826	1 537	-	-	-	- 112 389	-		
<i>Net change as % of opening</i>	<i>0,0%</i>	<i>18,0%</i>	<i>185,7%</i>	<i>31,9%</i>	<i>0,0%</i>	<i>0,0%</i>		<i>-4,2%</i>	<i>0,0%</i>		
Closing stock 2020	116 146	105 213	145 896	6 357	2 763	707	-	2 535 508	2 912 590	377 082	12,9%

* Note that World Heritage Sites show only the portion that do not overlap with other protected area types (refer to Section 1.2 and Section 2.1).

Extent account for land-based protected areas in the Desert biome, 1900–2020, in hectares, based on declaration dates in the South African Protected Areas Database

	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 1900	-	-						716 966	716 966	-	0,0%
Additions to stock		-						-	-		
Reductions in stock		-						-	-		
Net change in stock		-						-	-	-	
<i>Net change as % of opening</i>								0,0%	0,0%		
Closing stock 1920	-	-						716 966	716 966	-	0,0%
Opening stock 1920	-	-						716 966	716 966	-	0,0%
Additions to stock	-	-						-	-		
Reductions in stock	-	-						-	-		
Net change in stock	-	-						-	-	-	
<i>Net change as % of opening</i>								0,0%	0,0%		
Closing stock 1940	-	-						716 966	716 966	-	0,0%
Opening stock 1940	-	-						716 966	716 966	-	0,0%
Additions to stock	-	-						-	-		
Reductions in stock	-	-						-	-		
Net change in stock	-	-						-	-	-	
<i>Net change as % of opening</i>								0,0%	0,0%		
Closing stock 1960	-	-						716 966	716 966	-	0,0%
Opening stock 1960	-	-						716 966	716 966	-	0,0%
Additions to stock	-	-						-	-		
Reductions in stock	-	-						-	-		
Net change in stock	-	-						-	-	-	
<i>Net change as % of opening</i>								0,0%	0,0%		
Closing stock 1970	-	-						716 966	716 966	-	0,0%

Extent account for land-based protected areas in the Desert biome, 1900–2020, in hectares, based on declaration dates in the South African Protected Areas Database (continued)

	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 1970	-	-	-	-	-	-	-	716 966	716 966	-	0,0%
Additions to stock	-	-	-	-	-	-	-	-	-		
Reductions in stock	-	-	-	-	-	-	-	-	-		
Net change in stock	-	-	-	-	-	-	-	-	-	-	
<i>Net change as % of opening</i>								<i>0,0%</i>	<i>0,0%</i>		
Closing stock 1980	-	-	-	-	-	-	-	716 966	716 966	-	0,0%
Opening stock 1980	-	-	-	-	-	-	-	716 966	716 966	-	0,0%
Additions to stock	-	-	-	-	-	-	-	-	-		
Reductions in stock	-	-	-	-	-	-	-	-	-		
Net change in stock	-	-	-	-	-	-	-	-	-	-	
<i>Net change as % of opening</i>								<i>0,0%</i>	<i>0,0%</i>		
Closing stock 1990	-	-	-	-	-	-	-	716 966	716 966	-	0,0%
Opening stock 1990	-	-	-	-	-	-	-	716 966	716 966	-	0,0%
Additions to stock	104 635	10 243	-	-	-	-	-	-	114 878		
Reductions in stock	-	-	-	-	-	-	-	- 114 878	- 114 878		
Net change in stock	104 635	10 243	-	-	-	-	-	- 114 878	-	114 878	
<i>Net change as % of opening</i>								<i>-16,0%</i>	<i>0,0%</i>		
Closing stock 2000	104 635	10 243	-	-	-	-	-	602 088	716 966	114 878	16,0%
Opening stock 2000	104 635	10 243	-	-	-	-	-	602 088	716 966	114 878	16,0%
Additions to stock	-	-	-	-	-	-	-	-	-		
Reductions in stock	-	-	-	-	-	-	-	-	-		
Net change in stock	-	-	-	-	-	-	-	-	-	-	
<i>Net change as % of opening</i>	<i>0,0%</i>	<i>0,0%</i>						<i>0,0%</i>	<i>0,0%</i>	<i>0,0%</i>	
Closing stock 2005	104 635	10 243	-	-	-	-	-	602 088	716 966	114 878	16,0%

Extent account for land-based protected areas in the Desert biome, 1900–2020, in hectares, based on declaration dates in the South African Protected Areas Database (concluded)

	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 2005	104 635	10 243	-	-	-	-	-	602 088	716 966	114 878	16,0%
Additions to stock	-	-	-	-	-	-	44 814	-	44 814		
Reductions in stock	- 1	- 1	-	-	-	-	-	-44 812	-44 814		
Net change in stock	- 1	- 1	-	-	-	-	44 814	-44 812	-	44 812	
<i>Net change as % of opening</i>	<i>0,0%</i>	<i>0,0%</i>						<i>-7,4%</i>	<i>0,0%</i>	<i>39,0%</i>	
Closing stock 2010	104 634	10 242	-	-	-	-	44 814	557 276	716 966	159 690	22,3%
Opening stock 2010	104 634	10 242	-	-	-	-	44 814	557 276	716 966	159 690	22,3%
Additions to stock	-	-	-	-	-	-	-	-	-		
Reductions in stock	-	-	-	-	-	-	-	-	-		
Net change in stock	-	-	-	-	-	-	-	-	-	-	
<i>Net change as % of opening</i>	<i>0,0%</i>	<i>0,0%</i>					<i>0,0%</i>	<i>0,0%</i>	<i>0,0%</i>	<i>0,0%</i>	
Closing stock 2015	104 634	10 242	-	-	-	-	44 814	557 276	716 966	159 690	22,3%
Opening stock 2015	104 634	10 242	-	-	-	-	44 814	557 276	716 966	159 690	22,3%
Additions to stock	-	556	-	-	-	-	-	-	556		
Reductions in stock	-	-	-	-	-	-	-	- 556	- 556		
Net change in stock	-	556	-	-	-	-	-	- 556	-	556	
<i>Net change as % of opening</i>	<i>0,0%</i>	<i>5,4%</i>					<i>0,0%</i>	<i>-0,1%</i>	<i>0,0%</i>	<i>0,3%</i>	
Closing stock 2020	104 634	10 798	-	-	-	-	44 814	556 720	716 966	160 246	22,4%

* Note that World Heritage Sites show only the portion that do not overlap with other protected area types (refer to Section 1.2 and Section 2.1).

Extent account for land-based protected areas in the Forest biome, 1900–2020, in hectares, based on declaration dates in the South African Protected Areas Database

	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 1900	-	-						488 385	488 385	-	0,0%
Additions to stock		6 475						-	6 475		
Reductions in stock		-						-6 475	-6 475		
Net change in stock		6 475						-6 475	-	6 475	
<i>Net change as % of opening</i>								-1,3%	0,0%		
Closing stock 1920	-	6 475						481 910	488 385	6 475	1,3%
	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 1920	-	6 475			-	-	-	481 910	488 385	6 475	1,3%
Additions to stock	17 537	9 806			-	-	-	-	27 343		
Reductions in stock	-	-			-	-	-	-27 343	-27 343		
Net change in stock	17 537	9 806			-	-	-	-27 343	-	27 343	
<i>Net change as % of opening</i>		151,4%						-5,7%	0,0%	422,3%	
Closing stock 1940	17 537	16 281			-	-	-	454 567	488 385	33 818	6,9%
	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 1940	17 537	16 281			-	-	-	454 567	488 385	33 818	6,9%
Additions to stock	-	4 996			-	-	-	-	4 996		
Reductions in stock	-	-			-	-	-	-4 996	-4 996		
Net change in stock	-	4 996			-	-	-	-4 996	-	4 996	
<i>Net change as % of opening</i>	0,0%	30,7%						-1,1%	0,0%	14,8%	
Closing stock 1960	17 537	21 277			-	-	-	449 571	488 385	38 814	7,9%
	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 1960	17 537	21 277			-	-	-	449 571	488 385	38 814	7,9%
Additions to stock	32 606	6 372			-	-	-	-	38 978		
Reductions in stock	-	-			-	-	-	-38 978	-38 978		
Net change in stock	32 606	6 372			-	-	-	-38 978	-	38 978	
<i>Net change as % of opening</i>	185,9%	29,9%						-8,7%	0,0%	100,4%	
Closing stock 1970	50 143	27 649			-	-	-	410 593	488 385	77 792	15,9%

Extent account for land-based protected areas in the Forest biome, 1900–2020, in hectares, based on declaration dates in the South African Protected Areas Database (continued)

	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 1970	50 143	27 649		-	-	-		410 593	488 385	77 792	15,9%
Additions to stock	10 121	26 599		624	8 550	44		1	45 939		
Reductions in stock	- 1	-		-	-	-		-45 938	-45 939		
Net change in stock	10 120	26 599		624	8 550	44		-45 937	-	45 937	
<i>Net change as % of opening</i>	<i>20,2%</i>	<i>96,2%</i>						<i>-11,2%</i>	<i>0,0%</i>	<i>59,1%</i>	
Closing stock 1980	60 263	54 248		624	8 550	44		364 656	488 385	123 729	25,3%
	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 1980	60 263	54 248	-	624	8 550	44		364 656	488 385	123 729	25,3%
Additions to stock	43	14 418	1 833	6 645	190	239		1	23 369		
Reductions in stock	-	- 1	-	-	-	-		-23 368	-23 369		
Net change in stock	43	14 417	1 833	6 645	190	239		-23 367	-	23 367	
<i>Net change as % of opening</i>	<i>0,1%</i>	<i>26,6%</i>		<i>1 064,9%</i>	<i>2,2%</i>	<i>543,2%</i>		<i>-6,4%</i>	<i>0,0%</i>	<i>18,9%</i>	
Closing stock 1990	60 306	68 665	1 833	7 269	8 740	283		341 289	488 385	147 096	30,1%
	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 1990	60 306	68 665	1 833	7 269	8 740	283	-	341 289	488 385	147 096	30,1%
Additions to stock	265	26 155	354	2 484	-	-	457	-	29 715		
Reductions in stock	-	-	-	-	-	-	-	-29 715	-29 715		
Net change in stock	265	26 155	354	2 484	-	-	457	-29 715	-	29 715	
<i>Net change as % of opening</i>	<i>0,4%</i>	<i>38,1%</i>	<i>19,3%</i>	<i>34,2%</i>	<i>0,0%</i>	<i>0,0%</i>		<i>-8,7%</i>	<i>0,0%</i>	<i>20,2%</i>	
Closing stock 2000	60 571	94 820	2 187	9 753	8 740	283	457	311 574	488 385	176 811	36,2%
	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 2000	60 571	94 820	2 187	9 753	8 740	283	457	311 574	488 385	176 811	36,2%
Additions to stock	-	8 598	-	-	-	-	-	-	8 598		
Reductions in stock	-	-	-	-	-	-	-	-8 598	-8 598		
Net change in stock	-	8 598	-	-	-	-	-	-8 598	-	8 598	
<i>Net change as % of opening</i>	<i>0,0%</i>	<i>9,1%</i>	<i>0,0%</i>	<i>0,0%</i>	<i>0,0%</i>	<i>0,0%</i>	<i>0,0%</i>	<i>-2,8%</i>	<i>0,0%</i>	<i>4,9%</i>	
Closing stock 2005	60 571	103 418	2 187	9 753	8 740	283	457	302 976	488 385	185 409	38,0%

Extent account for land-based protected areas in the Forest biome, 1900–2020, in hectares, based on declaration dates in the South African Protected Areas Database (concluded)

	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 2005	60 571	103 418	2 187	9 753	8 740	283	457	302 976	488 385	185 409	38,0%
Additions to stock	-	331	898	-	-	-	592	-	1 821		
Reductions in stock	-	-	-	-	-	-	-	-1 821	-1 821		
Net change in stock	-	331	898	-	-	-	592	-1 821	-	1 821	
<i>Net change as % of opening</i>	<i>0,0%</i>	<i>0,3%</i>	<i>41,1%</i>	<i>0,0%</i>	<i>0,0%</i>	<i>0,0%</i>	<i>129,5%</i>	<i>-0,6%</i>	<i>0,0%</i>	<i>1,0%</i>	
Closing stock 2010	60 571	103 749	3 085	9 753	8 740	283	1 049	301 155	488 385	187 230	38,3%

	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	60 571	103 749	3 085	9 753	8 740	283	1 049	301 155	488 385	187 230	38,3%
Additions to stock	-	2 993	1 219	1 186	-	-	-	-	5 398		
Reductions in stock	-	-	-	-	-	-	-	-5 398	-5 398		
Net change in stock	-	2 993	1 219	1 186	-	-	-	-5 398	-	5 398	
<i>Net change as % of opening</i>	<i>0,0%</i>	<i>2,9%</i>	<i>39,5%</i>	<i>12,2%</i>	<i>0,0%</i>	<i>0,0%</i>	<i>0,0%</i>	<i>-1,8%</i>	<i>0,0%</i>	<i>2,9%</i>	
Closing stock 2015	60 571	106 742	4 304	10 939	8 740	283	1 049	295 757	488 385	192 628	39,4%

	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 2015	60 571	106 742	4 304	10 939	8 740	283	1 049	295 757	488 385	192 628	39,4%
Additions to stock	3	2 124	87	115	-	-	863	-	3 192		
Reductions in stock	-	-	-	-	-	-	-	-3 192	-3 192		
Net change in stock	3	2 124	87	115	-	-	863	-3 192	-	3 192	
<i>Net change as % of opening</i>	<i>0,0%</i>	<i>2,0%</i>	<i>2,0%</i>	<i>1,1%</i>	<i>0,0%</i>	<i>0,0%</i>	<i>82,3%</i>	<i>-1,1%</i>	<i>0,0%</i>	<i>1,7%</i>	
Closing stock 2020	60 574	108 866	4 391	11 054	8 740	283	1 912	292 565	488 385	195 820	40,1%

* Note that World Heritage Sites show only the portion that do not overlap with other protected area types (refer to Section 1.2 and Section 2.1).

Extent account for land-based protected areas in the Fynbos biome, 1900–2020, in hectares, based on declaration dates in the South African Protected Areas Database

	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 1900	-	-						8 321 604	8 321 604	-	0,0%
Additions to stock		-						-	-		
Reductions in stock		-						-	-		
Net change in stock		-						-	-	-	
<i>Net change as % of opening</i>								0,0%	0,0%		
Closing stock 1920	-	-						8 321 604	8 321 604	-	0,0%
	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 1920	-	-			-	-	-	8 321 604	8 321 604	-	0,0%
Additions to stock	31 939	-			-	-	-	-	31 939		
Reductions in stock	-	-			-	-	-	- 31 939	- 31 939		
Net change in stock	31 939	-			-	-	-	- 31 939	-	31 939	
<i>Net change as % of opening</i>								-0,4%	0,0%		
Closing stock 1940	31 939	-			-	-	-	8 289 665	8 321 604	31 939	0,4%
	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 1940	31 939	-			-	-	-	8 289 665	8 321 604	31 939	0,4%
Additions to stock	-	291			-	-	-	-	291		
Reductions in stock	-	-			-	-	-	- 291	- 291		
Net change in stock	-	291			-	-	-	- 291	-	291	
<i>Net change as % of opening</i>	0,0%							0,0%	0,0%	0,9%	
Closing stock 1960	31 939	291			-	-	-	8 289 374	8 321 604	32 230	0,4%
	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 1960	31 939	291			-	-	-	8 289 374	8 321 604	32 230	0,4%
Additions to stock	73 355	2 179			-	-	-	-	75 534		
Reductions in stock	-	-			-	-	-	- 75 534	- 75 534		
Net change in stock	73 355	2 179			-	-	-	- 75 534	-	75 534	
<i>Net change as % of opening</i>	229,7%	748,8%						-0,9%	0,0%	234,4%	
Closing stock 1970	105 294	2 470			-	-	-	8 213 840	8 321 604	107 764	1,3%

Extent account for land-based protected areas in the Fynbos biome, 1900–2020, in hectares, based on declaration dates in the South African Protected Areas Database (continued)

	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 1970	105 294	2 470		-	-	-		8 213 840	8 321 604	107 764	1,3%
Additions to stock	32 993	419 894		27 886	95 487	355 273		1	931 534		
Reductions in stock	- 1	-		-	-	-		- 931 533	- 931 534		
Net change in stock	32 992	419 894		27 886	95 487	355 273		- 931 532	-	931 532	
<i>Net change as % of opening</i>	<i>31,3%</i>	<i>16999,8%</i>						<i>-11,3%</i>	<i>0,0%</i>	<i>864,4%</i>	
Closing stock 1980	138 286	422 364		27 886	95 487	355 273		7 282 308	8 321 604	1 039 296	12,5%
	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 1980	138 286	422 364	-	27 886	95 487	355 273		7 282 308	8 321 604	1 039 296	12,5%
Additions to stock	48 366	109 659	9 341	27 173	33 783	194 236		2	422 560		
Reductions in stock	-	- 1	-	-	-1	-2		- 422 556	- 422 560		
Net change in stock	48 366	109 658	9 341	27 173	33 782	194 234		- 422 554	-	422 554	
<i>Net change as % of opening</i>	<i>35,0%</i>	<i>26,0%</i>		<i>97,4%</i>	<i>35,4%</i>	<i>54,7%</i>		<i>-5,8%</i>	<i>0,0%</i>	<i>40,7%</i>	
Closing stock 1990	186 652	532 022	9 341	55 059	129 269	549 507		6 859 754	8 321 604	1 461 850	17,6%
	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 1990	186 652	532 022	9 341	55 059	129 269	549 507	-	6 859 754	8 321 604	1 461 850	17,6%
Additions to stock	33 459	235 713	4 417	-	-	1	-	-	273 590		
Reductions in stock	-	- 1	-	-	-	-	-	- 273 589	- 273 590		
Net change in stock	33 459	235 712	4 417	-	-	1	-	- 273 589	-	273 589	
<i>Net change as % of opening</i>	<i>17,9%</i>	<i>44,3%</i>	<i>47,3%</i>	<i>0,0%</i>	<i>0,0%</i>	<i>0,0%</i>		<i>-4,0%</i>	<i>0,0%</i>	<i>18,7%</i>	
Closing stock 2000	220 111	767 734	13 758	55 059	129 269	549 508	-	6 586 165	8 321 604	1 735 439	20,9%
	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 2000	220 111	767 734	13 758	55 059	129 269	549 508	-	6 586 165	8 321 604	1 735 439	20,9%
Additions to stock	2 740	20 980	-	-	-	-	-	1	23 721		
Reductions in stock	-	- 1	-	-	-	-1	-	- 23 719	- 23 721		
Net change in stock	2 740	20 979	-	-	-	-1	-	- 23 718	-	23 718	
<i>Net change as % of opening</i>	<i>1,2%</i>	<i>2,7%</i>	<i>0,0%</i>	<i>0,0%</i>	<i>0,0%</i>	<i>0,0%</i>		<i>-0,4%</i>	<i>0,0%</i>	<i>1,4%</i>	
Closing stock 2005	222 851	788 713	13 758	55 059	129 269	549 507	-	6 562 447	8 321 604	1 759 157	21,1%

Extent account for land-based protected areas in the Fynbos biome, 1900–2020, in hectares, based on declaration dates in the South African Protected Areas Database (concluded)

	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 2005	222 851	788 713	13 758	55 059	129 269	549 507	-	6 562 447	8 321 604	1 759 157	21,1%
Additions to stock	845	21 987	-	-	-	-	3 909	-	26 741	26 741	
Reductions in stock	-	-	-	-	-	-	-	- 26 741	- 26 741		
Net change in stock	845	21 987	-	-	-	-	3 909	- 26 741	-	26 741	1,5%
<i>Net change as % of opening</i>	<i>0,4%</i>	<i>2,8%</i>	<i>0,0%</i>	<i>0,0%</i>	<i>0,0%</i>	<i>0,0%</i>	<i>0,0%</i>	<i>-0,4%</i>	<i>0,0%</i>	<i>1,5%</i>	
Closing stock 2010	223 696	810 700	13 758	55 059	129 269	549 507	3 909	6 535 706	8 321 604	1 785 898	21,5%

	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	223 696	810 700	13 758	55 059	129 269	549 507	3 909	6 535 706	8 321 604	1 785 898	21,5%
Additions to stock	-	34 989	6 232	-	-	3	-	-	41 224	41 224	
Reductions in stock	-	- 3	-	-	-	-	-	- 41 221	- 41 224		
Net change in stock	-	34 986	6 232	-	-	3	-	- 41 221	-	41 221	2,3%
<i>Net change as % of opening</i>	<i>0,0%</i>	<i>4,3%</i>	<i>45,3%</i>	<i>0,0%</i>	<i>0,0%</i>	<i>0,0%</i>	<i>0,0%</i>	<i>-0,6%</i>	<i>0,0%</i>	<i>2,3%</i>	
Closing stock 2015	223 696	845 686	19 990	55 059	129 269	549 510	3 909	6 494 485	8 321 604	1 827 119	22,0%

	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 2015	223 696	845 686	19 990	55 059	129 269	549 510	3 909	6 494 485	8 321 604	1 827 119	22,0%
Additions to stock	4	30 714	7 676	18	-	3	-	-	38 415	38 415	
Reductions in stock	-	-	-	-	-	-	-	- 38 415	- 38 415		
Net change in stock	4	30 714	7 676	18	-	3	-	- 38 415	-	38 415	2,1%
<i>Net change as % of opening</i>	<i>0,0%</i>	<i>3,6%</i>	<i>38,4%</i>	<i>0,0%</i>	<i>0,0%</i>	<i>0,0%</i>	<i>0,0%</i>	<i>-0,6%</i>	<i>0,0%</i>	<i>2,1%</i>	
Closing stock 2020	223 700	876 400	27 666	55 077	129 269	549 513	3 909	6 456 070	8 321 604	1 865 534	22,4%

* Note that World Heritage Sites show only the portion that do not overlap with other protected area types (refer to Section 1.2 and Section 2.1).

Extent account for land-based protected areas in the Grassland biome, 1900–2020, in hectares, based on declaration dates in the South African Protected Areas Database

	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 1900	-	-						32 780 417	32 780 417	-	0,0%
Additions to stock		38 524						-	38 524		
Reductions in stock		-						-38 524	-38 524		
Net change in stock		38 524						-38 524	-	38 524	
<i>Net change as % of opening</i>								-0,1%	0,0%		
Closing stock 1920	-	38 524						32 741 893	32 780 417	38 524	0,1%
	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 1920	-	38 524			-	-	-	32 741 893	32 780 417	38 524	0,1%
Additions to stock	11 367	-			-	-	-	-	11 367		
Reductions in stock	-	-			-	-	-	-11 367	-11 367		
Net change in stock	11 367	-			-	-	-	-11 367	-	11 367	
<i>Net change as % of opening</i>		0,0%						0,0%	0,0%	29,5%	
Closing stock 1940	11 367	38 524			-	-	-	32 730 526	32 780 417	49 891	0,2%
	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 1940	11 367	38 524			-	-	-	32 730 526	32 780 417	49 891	0,2%
Additions to stock	-	75 100			-	-	-	-	75 100		
Reductions in stock	-	-			-	-	-	-75 100	-75 100		
Net change in stock	-	75 100			-	-	-	-75 100	-	75 100	
<i>Net change as % of opening</i>	0,0%	194,9%						-0,2%	0,0%	150,5%	
Closing stock 1960	11 367	113 624			-	-	-	32 655 426	32 780 417	124 991	0,4%
	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 1960	11 367	113 624			-	-	-	32 655 426	32 780 417	124 991	0,4%
Additions to stock	34 000	92 958			-	-	-	-	126 958		
Reductions in stock	-	-			-	-	-	-126 958	-126 958		
Net change in stock	34 000	92 958			-	-	-	-126 958	-	126 958	
<i>Net change as % of opening</i>	299,1%	81,8%						-0,4%	0,0%	101,6%	
Closing stock 1970	45 367	206 582			-	-	-	32 528 468	32 780 417	251 949	0,8%

Extent account for land-based protected areas in the Grassland biome, 1900–2020, in hectares, based on declaration dates in the South African Protected Areas Database (continued)

	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 1970	45 367	206 582						32 528 468	32 780 417	251 949	0,8%
Additions to stock	8 567	178 499		29 848	109 495	3 320		-	329 729		
Reductions in stock	-	-		-	-	-		- 329 729	- 329 729		
Net change in stock	8 567	178 499		29 848	109 495	3 320		- 329 729	-	329 729	
<i>Net change as % of opening</i>	<i>18,9%</i>	<i>86,4%</i>						<i>-1,0%</i>	<i>0,0%</i>	<i>130,9%</i>	
Closing stock 1980	53 934	385 081		29 848	109 495	3 320		32 198 739	32 780 417	581 678	1,8%
	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 1980	53 934	385 081	-	29 848	109 495	3 320		32 198 739	32 780 417	581 678	1,8%
Additions to stock	-	154 911	-	21 634	13 950	-		1	190 496		
Reductions in stock	-	-	-	-	-1	-		- 190 495	- 190 496		
Net change in stock	-	154 911	-	21 634	13 949	-		- 190 494	-	190 494	
<i>Net change as % of opening</i>	<i>0,0%</i>	<i>40,2%</i>		<i>72,5%</i>	<i>12,7%</i>	<i>0,0%</i>		<i>-0,6%</i>	<i>0,0%</i>	<i>32,7%</i>	
Closing stock 1990	53 934	539 992	-	51 482	123 444	3 320		32 008 245	32 780 417	772 172	2,4%
	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 1990	53 934	539 992	-	51 482	123 444	3 320	-	32 008 245	32 780 417	772 172	2,4%
Additions to stock	9 876	205 847	2 495	2 988	-	-	-	-	221 206		
Reductions in stock	-	-	-	-	-	-	-	- 221 206	- 221 206		
Net change in stock	9 876	205 847	2 495	2 988	-	-	-	- 221 206	-	221 206	
<i>Net change as % of opening</i>	<i>18,3%</i>	<i>38,1%</i>		<i>5,8%</i>	<i>0,0%</i>	<i>0,0%</i>		<i>-0,7%</i>	<i>0,0%</i>	<i>28,6%</i>	
Closing stock 2000	63 810	745 839	2 495	54 470	123 444	3 320	-	31 787 039	32 780 417	993 378	3,0%
	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 2000	63 810	745 839	2 495	54 470	123 444	3 320	-	31 787 039	32 780 417	993 378	3,0%
Additions to stock	712	71 099	-	-	-	-	-	-	71 811		
Reductions in stock	-	-	-	-	-	-	-	-71 811	-71 811		
Net change in stock	712	71 099	-	-	-	-	-	-71 811	-	71 811	
<i>Net change as % of opening</i>	<i>1,1%</i>	<i>9,5%</i>	<i>0,0%</i>	<i>0,0%</i>	<i>0,0%</i>	<i>0,0%</i>		<i>-0,2%</i>	<i>0,0%</i>	<i>7,2%</i>	
Closing stock 2005	64 522	816 938	2 495	54 470	123 444	3 320	-	31 715 228	32 780 417	1 065 189	3,2%

Extent account for land-based protected areas in the Grassland biome, 1900–2020, in hectares, based on declaration dates in the South African Protected Areas Database (concluded)

	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 2005	64 522	816 938	2 495	54 470	123 444	3 320	-	31 715 228	32 780 417	1 065 189	3,2%
Additions to stock	-	11 600	25 155	-	-	-	43 773	1	80 529		
Reductions in stock	-	- 1	-	-	-	-	-	-80 528	-80 529		
Net change in stock	-	11 599	25 155	-	-	-	43 773	-80 527	-	80 527	
<i>Net change as % of opening</i>	<i>0,0%</i>	<i>1,4%</i>	<i>1 008,2%</i>	<i>0,0%</i>	<i>0,0%</i>	<i>0,0%</i>		<i>-0,3%</i>	<i>0,0%</i>	<i>7,6%</i>	
Closing stock 2010	64 522	828 537	27 650	54 470	123 444	3 320	43 773	31 634 701	32 780 417	1 145 716	3,5%
	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	64 522	828 537	27 650	54 470	123 444	3 320	43 773	31 634 701	32 780 417	1 145 716	3,5%
Additions to stock	-	34 283	102 089	13 319	-	-	-	-	149 691		
Reductions in stock	-	-	-	-	-	-	-	- 149 691	- 149 691		
Net change in stock	-	34 283	102 089	13 319	-	-	-	- 149 691	-	149 691	
<i>Net change as % of opening</i>	<i>0,0%</i>	<i>4,1%</i>	<i>369,2%</i>	<i>24,5%</i>	<i>0,0%</i>	<i>0,0%</i>	<i>0,0%</i>	<i>-0,5%</i>	<i>0,0%</i>	<i>13,1%</i>	
Closing stock 2015	64 522	862 820	129 739	67 789	123 444	3 320	43 773	31 485 010	32 780 417	1 295 407	4,0%
	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 2015	64 522	862 820	129 739	67 789	123 444	3 320	43 773	31 485 010	32 780 417	1 295 407	4,0%
Additions to stock	-	37 992	142 411	-	1	-	20 670	-	201 074		
Reductions in stock	-	-	-	-	-	-	-	- 201 074	- 201 074		
Net change in stock	-	37 992	142 411	-	1	-	20 670	- 201 074	-	201 074	
<i>Net change as % of opening</i>	<i>0,0%</i>	<i>4,4%</i>	<i>109,8%</i>	<i>0,0%</i>	<i>0,0%</i>	<i>0,0%</i>	<i>47,2%</i>	<i>-0,6%</i>	<i>0,0%</i>	<i>15,5%</i>	
Closing stock 2020	64 522	900 812	272 150	67 789	123 445	3 320	64 443	31 283 936	32 780 417	1 496 481	4,6%

* Note that World Heritage Sites show only the portion that do not overlap with other protected area types (refer to Section 1.2 and Section 2.1).

Extent account for land-based protected areas in the Indian Ocean Coastal Belt biome, 1900–2020, in hectares, based on declaration dates in the South African Protected Areas Database

	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 1900	-	-						1 143 546	1 143 546	-	0,0%
Additions to stock		80						-	80		
Reductions in stock		-						-80	-80		
Net change in stock		80						-80	-	80	
<i>Net change as % of opening</i>								0,0%	0,0%		
Closing stock 1920	-	80						1 143 466	1 143 546	80	0,0%
	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 1920	-	80			-	-	-	1 143 466	1 143 546	80	0,0%
Additions to stock	-	2 478			-	-	-	-	2 478		
Reductions in stock	-	-			-	-	-	- 2 478	- 2 478		
Net change in stock	-	2 478			-	-	-	- 2 478	-	2 478	
<i>Net change as % of opening</i>		3 097,5%						-0,2%	0,0%	3 097,5%	
Closing stock 1940	-	2 558			-	-	-	1 140 988	1 143 546	2 558	0,2%
	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 1940	-	2 558			-	-	-	1 140 988	1 143 546	2 558	0,2%
Additions to stock	-	1 886			-	-	-	-	1 886		
Reductions in stock	-	-			-	-	-	- 1 886	- 1 886		
Net change in stock	-	1 886			-	-	-	- 1 886	-	1 886	
<i>Net change as % of opening</i>		73,7%						-0,2%	0,0%	73,7%	
Closing stock 1960	-	4 444			-	-	-	1 139 102	1 143 546	4 444	0,4%
	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 1960	-	4 444			-	-	-	1 139 102	1 143 546	4 444	0,4%
Additions to stock	-	127			-	-	-	-	127		
Reductions in stock	-	-			-	-	-	-127	-127		
Net change in stock	-	127			-	-	-	-127	-	127	
<i>Net change as % of opening</i>		2,9%						0,0%	0,0%	2,9%	
Closing stock 1970	-	4 571			-	-	-	1 138 975	1 143 546	4 571	0,4%

Extent account for land-based protected areas in the Indian Ocean Coastal Belt biome, 1900–2020, in hectares, based on declaration dates in the South African Protected Areas Database (continued)

	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 1970	-	4 571		-	-	-		1 138 975	1 143 546	4 571	0,4%
Additions to stock	-	48 129		-	-	-		-	48 129		
Reductions in stock	-	-		-	-	-		-48 129	-48 129		
Net change in stock	-	48 129		-	-	-		-48 129	-	48 129	
<i>Net change as % of opening</i>		1 052,9%						-4,2%	0,0%	1 052,9%	
Closing stock 1980	-	52 700		-	-	-		1 090 846	1 143 546	52 700	4,6%
	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 1980	-	52 700	-	-	-	-		1 090 846	1 143 546	52 700	4,6%
Additions to stock	-	1 818	-	7	-	-		-	1 825		
Reductions in stock	-	-	-	-	-	-		- 1 825	- 1 825		
Net change in stock	-	1 818	-	7	-	-		- 1 825	-	1 825	
<i>Net change as % of opening</i>		3,4%						-0,2%	0,0%	3,5%	
Closing stock 1990	-	54 518	-	7	-	-		1 089 021	1 143 546	54 525	4,8%
	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 1990	-	54 518	-	7	-	-	-	1 089 021	1 143 546	54 525	4,8%
Additions to stock	-	16 907	-	-	-	-	-	-	16 907		
Reductions in stock	-	-	-	-	-	-	-	-16 907	-16 907		
Net change in stock	-	16 907	-	-	-	-	-	-16 907	-	16 907	
<i>Net change as % of opening</i>		31,0%		0,0%				-1,6%	0,0%	31,0%	
Closing stock 2000	-	71 425	-	7	-	-	-	1 072 114	1 143 546	71 432	6,2%
	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 2000	-	71 425	-	7	-	-	-	1 072 114	1 143 546	71 432	6,2%
Additions to stock	-	-	-	-	-	-	-	-	-		
Reductions in stock	-	-	-	-	-	-	-	-	-		
Net change in stock	-	-	-	-	-	-	-	-	-	-	
<i>Net change as % of opening</i>		0,0%		0,0%				0,0%	0,0%	0,0%	
Closing stock 2005	-	71 425	-	7	-	-	-	1 072 114	1 143 546	71 432	6,2%

Extent account for land-based protected areas in the Indian Ocean Coastal Belt biome, 1900–2020, in hectares, based on declaration dates in the South African Protected Areas Database (concluded)

	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 2005	-	71 425	-	7	-	-	-	1 072 114	1 143 546	71 432	6,2%
Additions to stock	-	17	-	-	-	-	-	-	17		
Reductions in stock	-	-	-	-	-	-	-	-17	-17		
Net change in stock	-	17	-	-	-	-	-	-17	-	17	
<i>Net change as % of opening</i>		0,0%		0,0%				0,0%	0,0%	0,0%	
Closing stock 2010	-	71 442	-	7	-	-	-	1 072 097	1 143 546	71 449	6,2%
Opening stock 2010	-	71 442	-	7	-	-	-	1 072 097	1 143 546	71 449	6,2%
Additions to stock	-	340	-	-	-	-	-	-	340		
Reductions in stock	-	-	-	-	-	-	-	-340	-340		
Net change in stock	-	340	-	-	-	-	-	-340	-	340	
<i>Net change as % of opening</i>		0,5%		0,0%				0,0%	0,0%	0,5%	
Closing stock 2015	-	71 782	-	7	-	-	-	1 071 757	1 143 546	71 789	6,3%
Opening stock 2015	-	71 782	-	7	-	-	-	1 071 757	1 143 546	71 789	6,3%
Additions to stock	-	357	-	-	-	-	-	-	357		
Reductions in stock	-	-	-	-	-	-	-	-357	-357		
Net change in stock	-	357	-	-	-	-	-	-357	-	357	
<i>Net change as % of opening</i>		0,5%		0,0%				0,0%	0,0%	0,5%	
Closing stock 2020	-	72 139	-	7	-	-	-	1 071 400	1 143 546	72 146	6,3%

* Note that World Heritage Sites show only the portion that do not overlap with other protected area types (refer to Section 1.2 and Section 2.1).

Extent account for land-based protected areas in the Nama-Karoo biome, 1900–2020, in hectares, based on declaration dates in the South African Protected Areas Database

	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 1900	-	-						24 828 214	24 828 214	-	0,0%
Additions to stock		-						-	-		
Reductions in stock		-						-	-		
Net change in stock		-						-	-	-	
<i>Net change as % of opening</i>								<i>0,0%</i>	<i>0,0%</i>		
Closing stock 1920	-	-						24 828 214	24 828 214	-	0,0%

	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 1920	-	-			-	-	-	24 828 214	24 828 214	-	0,0%
Additions to stock	6 680	-			-	-	-	-	6 680		
Reductions in stock	-	-			-	-	-	-6 680	-6 680		
Net change in stock	6 680	-			-	-	-	-6 680	-	6 680	
<i>Net change as % of opening</i>								<i>0,0%</i>	<i>0,0%</i>		
Closing stock 1940	6 680	-			-	-	-	24 821 534	24 828 214	6 680	0,0%

	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 1940	6 680	-			-	-	-	24 821 534	24 828 214	6 680	0,0%
Additions to stock	-	141			-	-	-	-	141		
Reductions in stock	-	-			-	-	-	-141	-141		
Net change in stock	-	141			-	-	-	-141	-	141	
<i>Net change as % of opening</i>	<i>0,0%</i>							<i>0,0%</i>	<i>0,0%</i>	<i>2,1%</i>	
Closing stock 1960	6 680	141			-	-	-	24 821 393	24 828 214	6 821	0,0%

	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 1960	6 680	141			-	-	-	24 821 393	24 828 214	6 821	0,0%
Additions to stock	47 110	9			-	-	-	-	47 119		
Reductions in stock	-	-			-	-	-	-47 119	-47 119		
Net change in stock	47 110	9			-	-	-	-47 119	-	47 119	
<i>Net change as % of opening</i>	<i>705,2%</i>	<i>6,4%</i>						<i>-0,2%</i>	<i>0,0%</i>	<i>690,8%</i>	
Closing stock 1970	53 790	150			-	-	-	24 774 274	24 828 214	53 940	0,2%

Extent account for land-based protected areas in the Nama-Karoo biome, 1900–2020, in hectares, based on declaration dates in the South African Protected Areas Database (continued)

	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 1970	53 790	150		-	-	-		24 774 274	24 828 214	53 940	0,2%
Additions to stock	86 326	16 452		-	-	-		-	102 778		
Reductions in stock	-	-		-	-	-		- 102 778	- 102 778		
Net change in stock	86 326	16 452		-	-	-		- 102 778	-	102 778	
<i>Net change as % of opening</i>	<i>160,5%</i>	<i>10968,0%</i>						<i>-0,4%</i>	<i>0,0%</i>	<i>190,5%</i>	
Closing stock 1980	140 116	16 602		-	-	-		24 671 496	24 828 214	156 718	0,6%
	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 1980	140 116	16 602	-	-	-	-		24 671 496	24 828 214	156 718	0,6%
Additions to stock	-	36 647	-	-	-	-		-	36 647		
Reductions in stock	-	-	-	-	-	-		-36 647	-36 647		
Net change in stock	-	36 647	-	-	-	-		-36 647	-	36 647	
<i>Net change as % of opening</i>	<i>0,0%</i>	<i>220,7%</i>						<i>-0,1%</i>	<i>0,0%</i>	<i>23,4%</i>	
Closing stock 1990	140 116	53 249	-	-	-	-		24 634 849	24 828 214	193 365	0,8%
	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 1990	140 116	53 249	-	-	-	-	-	24 634 849	24 828 214	193 365	0,8%
Additions to stock	-	28 842	-	-	-	-	-	-	28 842		
Reductions in stock	-	-	-	-	-	-	-	-28 842	-28 842		
Net change in stock	-	28 842	-	-	-	-	-	-28 842	-	28 842	
<i>Net change as % of opening</i>	<i>0,0%</i>	<i>54,2%</i>						<i>-0,1%</i>	<i>0,0%</i>	<i>14,9%</i>	
Closing stock 2000	140 116	82 091	-	-	-	-	-	24 606 007	24 828 214	222 207	0,9%
	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 2000	140 116	82 091	-	-	-	-	-	24 606 007	24 828 214	222 207	0,9%
Additions to stock	12 173	105	-	-	-	-	-	-	12 278		
Reductions in stock	-	-	-	-	-	-	-	-12 278	-12 278		
Net change in stock	12 173	105	-	-	-	-	-	-12 278	-	12 278	
<i>Net change as % of opening</i>	<i>8,7%</i>	<i>0,1%</i>						<i>0,0%</i>	<i>0,0%</i>	<i>5,5%</i>	
Closing stock 2005	152 289	82 196	-	-	-	-	-	24 593 729	24 828 214	234 485	0,9%

Extent account for land-based protected areas in the Nama-Karoo biome, 1900–2020, in hectares, based on declaration dates in the South African Protected Areas Database (concluded)

	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 2005	152 289	82 196	-	-	-	-	-	24 593 729	24 828 214	234 485	0,9%
Additions to stock	4 745	-	-	-	-	-	-	-	4 745		
Reductions in stock	-	-	-	-	-	-	-	-4 745	-4 745		
Net change in stock	4 745	-	-	-	-	-	-	-4 745	-	4 745	
<i>Net change as % of opening</i>	<i>3,1%</i>	<i>0,0%</i>						<i>0,0%</i>	<i>0,0%</i>	<i>2,0%</i>	
Closing stock 2010	157 034	82 196	-	-	-	-	-	24 588 984	24 828 214	239 230	1,0%
Opening stock 2010	157 034	82 196	-	-	-	-	-	24 588 984	24 828 214	239 230	1,0%
Additions to stock	-	3 953	27 077	-	-	-	-	-	31 030		
Reductions in stock	-	-	-	-	-	-	-	-31 030	-31 030		
Net change in stock	-	3 953	27 077	-	-	-	-	-31 030	-	31 030	
<i>Net change as % of opening</i>	<i>0,0%</i>	<i>4,8%</i>						<i>-0,1%</i>	<i>0,0%</i>	<i>13,0%</i>	
Closing stock 2015	157 034	86 149	27 077	-	-	-	-	24 557 954	24 828 214	270 260	1,1%
Opening stock 2015	157 034	86 149	27 077	-	-	-	-	24 557 954	24 828 214	270 260	1,1%
Additions to stock	125 846	38 548	120 789	-	-	-	-	-	285 183		
Reductions in stock	-	-	-	-	-	-	-	-285 183	-285 183		
Net change in stock	125 846	38 548	120 789	-	-	-	-	-285 183	-	285 183	
<i>Net change as % of opening</i>	<i>80,1%</i>	<i>44,7%</i>	<i>446,1%</i>					<i>-1,2%</i>	<i>0,0%</i>	<i>105,5%</i>	
Closing stock 2020	282 880	124 697	147 866	-	-	-	-	24 272 771	24 828 214	555 443	2,2%

* Note that World Heritage Sites show only the portion that do not overlap with other protected area types (refer to Section 1.2 and Section 2.1).

Extent account for land-based protected areas in the Savanna biome, 1900–2020, in hectares, based on declaration dates in the South African Protected Areas Database

	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 1900	-	-						39 132 802	39 132 802	-	0,0%
Additions to stock		42 512						-	42 512		
Reductions in stock		-						-42 512	-42 512		
Net change in stock		42 512						-42 512	-	42 512	
<i>Net change as % of opening</i>								-0,1%	0,0%		
Closing stock 1920	-	42 512						39 090 290	39 132 802	42 512	0,1%

	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 1920	-	42 512			-	-	-	39 090 290	39 132 802	42 512	0,1%
Additions to stock	2 801 305	53 208			-	-	-	-	2 854 513		
Reductions in stock	-	-			-	-	-	-2 854 513	-2 854 513		
Net change in stock	2 801 305	53 208			-	-	-	-2 854 513	-	2 854 513	
<i>Net change as % of opening</i>		125,2%						-7,3%	0,0%	6 714,6%	
Closing stock 1940	2 801 305	95 720			-	-	-	36 235 777	39 132 802	2 897 025	7,4%

	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 1940	2 801 305	95 720			-	-	-	36 235 777	39 132 802	2 897 025	7,4%
Additions to stock	-	374 469			-	-	-	-	374 469		
Reductions in stock	-	-			-	-	-	-374 469	-374 469		
Net change in stock	-	374 469			-	-	-	-374 469	-	374 469	
<i>Net change as % of opening</i>	0,0%	391,2%						-1,0%	0,0%	12,9%	
Closing stock 1960	2 801 305	470 189			-	-	-	35 861 308	39 132 802	3 271 494	8,4%

	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 1960	2 801 305	470 189			-	-	-	35 861 308	39 132 802	3 271 494	8,4%
Additions to stock	9	685 343			-	-	-	-	685 352		
Reductions in stock	-5	-			-	-	-	-685 347	-685 352		
Net change in stock	4	685 343			-	-	-	-685 347	-	685 347	
<i>Net change as % of opening</i>	0,0%	145,8%						-1,9%	0,0%	20,9%	
Closing stock 1970	2 801 309	1 155 532			-	-	-	35 175 961	39 132 802	3 956 841	10,1%

Extent account for land-based protected areas in the Savanna biome, 1900–2020, in hectares, based on declaration dates in the South African Protected Areas Database (continued)

	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 1970	2 801 309	1 155 532		-	-	-		35 175 961	39 132 802	3 956 841	10,1%
Additions to stock	16 931	240 115		979	11 392	313		3	269 733		
Reductions in stock	-	- 3		-	-	-		- 269 730	- 269 733		
Net change in stock	16 931	240 112		979	11 392	313		- 269 727	-	269 727	
<i>Net change as % of opening</i>	<i>0,6%</i>	<i>20,8%</i>						<i>-0,8%</i>	<i>0,0%</i>	<i>6,8%</i>	
Closing stock 1980	2 818 240	1 395 644		979	11 392	313		34 906 234	39 132 802	4 226 568	10,8%
	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 1980	2 818 240	1 395 644	-	979	11 392	313		34 906 234	39 132 802	4 226 568	10,8%
Additions to stock	4 902	149 211	-	1 356	-	-		-	155 469		
Reductions in stock	-	-	-	-	-	-		- 155 469	- 155 469		
Net change in stock	4 902	149 211	-	1 356	-	-		- 155 469	-	155 469	
<i>Net change as % of opening</i>	<i>0,2%</i>	<i>10,7%</i>		<i>138,5%</i>	<i>0,0%</i>	<i>0,0%</i>		<i>-0,4%</i>	<i>0,0%</i>	<i>3,7%</i>	
Closing stock 1990	2 823 142	1 544 855	-	2 335	11 392	313		34 750 765	39 132 802	4 382 037	11,2%
	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 1990	2 823 142	1 544 855	-	2 335	11 392	313	-	34 750 765	39 132 802	4 382 037	11,2%
Additions to stock	60 204	287 259	56 519	700	-	-	307	-	404 989		
Reductions in stock	-	- 2	-	-	-	-	-	- 404 987	- 404 989		
Net change in stock	60 204	287 257	56 519	700	-	-	307	- 404 987	-	404 987	
<i>Net change as % of opening</i>	<i>2,1%</i>	<i>18,6%</i>		<i>30,0%</i>	<i>0,0%</i>	<i>0,0%</i>		<i>-1,2%</i>	<i>0,0%</i>	<i>9,2%</i>	
Closing stock 2000	2 883 346	1 832 112	56 519	3 035	11 392	313	307	34 345 778	39 132 802	4 787 024	12,2%
	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 2000	2 883 346	1 832 112	56 519	3 035	11 392	313	307	34 345 778	39 132 802	4 787 024	12,2%
Additions to stock	867	38 469	-	-	-	-	-	-	39 336		
Reductions in stock	-	-	-	-	-	-	-	-39 336	-39 336		
Net change in stock	867	38 469	-	-	-	-	-	-39 336	-	39 336	
<i>Net change as % of opening</i>	<i>0,0%</i>	<i>2,1%</i>	<i>0,0%</i>	<i>0,0%</i>	<i>0,0%</i>	<i>0,0%</i>	<i>0,0%</i>	<i>-0,1%</i>	<i>0,0%</i>	<i>0,8%</i>	
Closing stock 2005	2 884 213	1 870 581	56 519	3 035	11 392	313	307	34 306 442	39 132 802	4 826 360	12,3%

Extent account for land-based protected areas in the Savanna biome, 1900–2020, in hectares, based on declaration dates in the South African Protected Areas Database (concluded)

	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 2005	2 884 213	1 870 581	56 519	3 035	11 392	313	307	34 306 442	39 132 802	4 826 360	12,3%
Additions to stock	21 113	50 221	-	-	-	-	26 088	-	97 422	97 422	2,0%
Reductions in stock	-	-	-	-	-	-	-	-97 422	-97 422		
Net change in stock	21 113	50 221	-	-	-	-	26 088	-97 422	-		
<i>Net change as % of opening</i>	<i>0,7%</i>	<i>2,7%</i>	<i>0,0%</i>	<i>0,0%</i>	<i>0,0%</i>	<i>0,0%</i>	<i>8 497,7%</i>	<i>-0,3%</i>	<i>0,0%</i>		
Closing stock 2010	2 905 326	1 920 802	56 519	3 035	11 392	313	26 395	34 209 020	39 132 802	4 923 782	12,6%

	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	2 905 326	1 920 802	56 519	3 035	11 392	313	26 395	34 209 020	39 132 802	4 923 782	12,6%
Additions to stock	-	111 085	857	793	-	-	-	-	112 735	112 735	2,3%
Reductions in stock	-	-	-	-	-	-	-	- 112 735	- 112 735		
Net change in stock	-	111 085	857	793	-	-	-	- 112 735	-		
<i>Net change as % of opening</i>	<i>0,0%</i>	<i>5,8%</i>	<i>1,5%</i>	<i>26,1%</i>	<i>0,0%</i>	<i>0,0%</i>	<i>0,0%</i>	<i>-0,3%</i>	<i>0,0%</i>		
Closing stock 2015	2 905 326	2 031 887	57 376	3 828	11 392	313	26 395	34 096 285	39 132 802	5 036 517	12,9%

	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 2015	2 905 326	2 031 887	57 376	3 828	11 392	313	26 395	34 096 285	39 132 802	5 036 517	12,9%
Additions to stock	-	363 078	123 628	656	-	-	17 426	-	504 788	504 788	10,0%
Reductions in stock	-	-	-	-	-	-	-	- 504 788	- 504 788		
Net change in stock	-	363 078	123 628	656	-	-	17 426	- 504 788	-		
<i>Net change as % of opening</i>	<i>0,0%</i>	<i>17,9%</i>	<i>215,5%</i>	<i>17,1%</i>	<i>0,0%</i>	<i>0,0%</i>	<i>66,0%</i>	<i>-1,5%</i>	<i>0,0%</i>		
Closing stock 2020	2 905 326	2 394 965	181 004	4 484	11 392	313	43 821	33 591 497	39 132 802	5 541 305	14,2%

* Note that World Heritage Sites show only the portion that do not overlap with other protected area types (refer to Section 1.2 and Section 2.1).

Extent account for land-based protected areas in the Succulent Karoo biome, 1900–2020, in hectares, based on declaration dates in the South African Protected Areas Database

	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 1900	-	-						8 366 177	8 366 177	-	0,0%
Additions to stock	-						-	-			
Reductions in stock	-						-	-			
Net change in stock	-						-	-	-		
<i>Net change as % of opening</i>								0,0%	0,0%		
Closing stock 1920	-	-						8 366 177	8 366 177	-	0,0%
	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 1920	-	-			-	-	-	8 366 177	8 366 177	-	0,0%
Additions to stock	-	-			-	-	-	-	-		
Reductions in stock	-	-			-	-	-	-	-		
Net change in stock	-	-			-	-	-	-	-	-	
<i>Net change as % of opening</i>								0,0%	0,0%		
Closing stock 1940	-	-			-	-	-	8 366 177	8 366 177	-	0,0%
	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 1940	-	-			-	-	-	8 366 177	8 366 177	-	0,0%
Additions to stock	-	-			-	-	-	-	-		
Reductions in stock	-	-			-	-	-	-	-		
Net change in stock	-	-			-	-	-	-	-	-	
<i>Net change as % of opening</i>								0,0%	0,0%		
Closing stock 1960	-	-			-	-	-	8 366 177	8 366 177	-	0,0%
	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 1960	-	-			-	-	-	8 366 177	8 366 177	-	0,0%
Additions to stock	-	1 518			-	-	-	-	1 518		
Reductions in stock	-	-			-	-	-	- 1 518	- 1 518		
Net change in stock	-	1 518			-	-	-	- 1 518	-	1 518	
<i>Net change as % of opening</i>								0,0%	0,0%		
Closing stock 1970	-	1 518			-	-	-	8 364 659	8 366 177	1 518	0,0%

Extent account for land-based protected areas in the Succulent Karoo biome, 1900–2020, in hectares, based on declaration dates in the South African Protected Areas Database (continued)

	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 1970	-	1 518	-	-	-	-	-	8 364 659	8 366 177	1 518	0,0%
Additions to stock	13 877	15 598	-	-	162	3 247	-	-	32 884		
Reductions in stock	-	-	-	-	-	-	-	- 32 884	- 32 884		
Net change in stock	13 877	15 598	-	-	162	3 247	-	- 32 884	-	32 884	
<i>Net change as % of opening</i>		1 027,5%						-0,4%	0,0%	2 166,3%	
Closing stock 1980	13 877	17 116	-	-	162	3 247	-	8 331 775	8 366 177	34 402	0,4%
Opening stock 1980	13 877	17 116	-	-	162	3 247	-	8 331 775	8 366 177	34 402	0,4%
Additions to stock	95 520	64 857	-	-	-	365	-	-	160 742		
Reductions in stock	-	-	-	-	-	-	-	- 160 742	- 160 742		
Net change in stock	95 520	64 857	-	-	-	365	-	- 160 742	-	160 742	
<i>Net change as % of opening</i>	688,3%	378,9%			0,0%	11,2%		-1,9%	0,0%	467,2%	
Closing stock 1990	109 397	81 973	-	-	162	3 612	-	8 171 033	8 366 177	195 144	2,3%
Opening stock 1990	109 397	81 973	-	-	162	3 612	-	8 171 033	8 366 177	195 144	2,3%
Additions to stock	58 699	28 702	-	-	-	1	-	-	87 402		
Reductions in stock	-	-	-	-	-	-	-	- 87 402	- 87 402		
Net change in stock	58 699	28 702	-	-	-	1	-	- 87 402	-	87 402	
<i>Net change as % of opening</i>	53,7%	35,0%			0,0%	0,0%		-1,1%	0,0%	44,8%	
Closing stock 2000	168 096	110 675	-	-	162	3 613	-	8 083 631	8 366 177	282 546	3,4%
Opening stock 2000	168 096	110 675	-	-	162	3 613	-	8 083 631	8 366 177	282 546	3,4%
Additions to stock	133 847	8 578	-	-	-	-	-	-	142 425		
Reductions in stock	-	-	-	-	-	-	-	- 142 425	- 142 425		
Net change in stock	133 847	8 578	-	-	-	-	-	- 142 425	-	142 425	
<i>Net change as % of opening</i>	79,6%	7,8%			0,0%	0,0%		-1,8%	0,0%	50,4%	
Closing stock 2005	301 943	119 253	-	-	162	3 613	-	7 941 206	8 366 177	424 971	5,1%

Extent account for land-based protected areas in the Succulent Karoo biome, 1900–2020, in hectares, based on declaration dates in the South African Protected Areas Database (concluded)

	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 2005	301 943	119 253	-	-	162	3 613	-	7 941 206	8 366 177	424 971	5,1%
Additions to stock	-	2 611	-	-	-	-	94 023	-	96 634	96 634	22,7%
Reductions in stock	-	-	-	-	-	-	-	- 96 634	- 96 634		
Net change in stock	-	2 611	-	-	-	-	94 023	- 96 634	-		
<i>Net change as % of opening</i>	<i>0,0%</i>	<i>2,2%</i>			<i>0,0%</i>	<i>0,0%</i>		<i>-1,2%</i>	<i>0,0%</i>		
Closing stock 2010	301 943	121 864	-	-	162	3 613	94 023	7 844 572	8 366 177	521 605	6,2%
Opening stock 2010	301 943	121 864	-	-	162	3 613	94 023	7 844 572	8 366 177	521 605	6,2%
Additions to stock	-	91 586	-	-	-	-	-	-	91 586	91 586	17,6%
Reductions in stock	-	-	-	-	-	-	-	- 91 586	- 91 586		
Net change in stock	-	91 586	-	-	-	-	-	- 91 586	-		
<i>Net change as % of opening</i>	<i>0,0%</i>	<i>75,2%</i>			<i>0,0%</i>	<i>0,0%</i>	<i>0,0%</i>	<i>-1,2%</i>	<i>0,0%</i>		
Closing stock 2015	301 943	213 450	-	-	162	3 613	94 023	7 752 986	8 366 177	613 191	7,3%
Opening stock 2015	301 943	213 450	-	-	162	3 613	94 023	7 752 986	8 366 177	613 191	7,3%
Additions to stock	-	7 298	-	-	-	-	-	-	7 298	7 298	1,2%
Reductions in stock	-	-	-	-	-	-	-	- 7 298	- 7 298		
Net change in stock	-	7 298	-	-	-	-	-	- 7 298	-		
<i>Net change as % of opening</i>	<i>0,0%</i>	<i>3,4%</i>			<i>0,0%</i>	<i>0,0%</i>	<i>0,0%</i>	<i>-0,1%</i>	<i>0,0%</i>		
Closing stock 2020	301 943	220 748	-	-	162	3 613	94 023	7 745 688	8 366 177	620 489	7,4%

* Note that World Heritage Sites show only the portion that do not overlap with other protected area types (refer to Section 1.2 and Section 2.1).

APPENDIX 5. EXTENT AND PROPORTION OF TERRESTRIAL ECOSYSTEM TYPES PROTECTED, 2000–2020, BASED ON DECLARATION DATES IN THE SOUTH AFRICAN PROTECTED AREAS DATABASE

The table below provides the extent and proportion of terrestrial ecosystem types protected at 5-yearly accounting periods from 2000 to 2020, based on the declaration dates provided in the SAPAD. It is important to note that the calculation of the area protected per vegetation type was undertaken using the source vector data of national vegetation types and protected area data, as opposed to the raster versions of these data layers used to compile the accounting tables.

Terrestrial ecosystem type	Vegetation type code	Extent of ecosystem type (ha)	Area protected by 2000 (ha)	Area protected by 2005 (ha)	Area protected by 2010 (ha)	Area protected by 2015 (ha)	Area protected by 2020 (ha)	Proportion of ecosystem type protected by 2020 (%)
Aggeneys Gravel Vygieveld	SKr19	37 204,5	-	-	-	-	2 013,2	5,4%
Agter-Sederberg Shrubland	SKv3	92 857,6	970,0	970,0	1 278,5	1 608,6	1 608,6	1,7%
Agulhas Limestone Fynbos	FFI1	29 401,2	3 729,1	3 817,2	4 014,9	4 025,9	4 046,4	13,8%
Agulhas Sand Fynbos	FFd7	24 687,8	3 159,2	3 159,2	3 159,2	3 176,8	3 176,8	12,9%
Albany Arid Thicket	AT15	1 460,0	28,6	28,6	28,6	28,6	28,6	2,0%
Albany Bontveld	AT16	5 377,1	93,4	93,4	93,4	93,4	270,9	5,0%
Albany Broken Veld	NKl4	74 269,4	138,4	6 119,4	6 119,4	6 119,4	6 119,4	8,2%
Albany Mesic Thicket	AT17	72 920,1	4 837,7	4 837,7	4 837,7	4 837,7	14 027,1	19,2%
Albany Valley Thicket	AT18	117 569,6	6 068,5	6 283,2	6 283,2	6 283,2	18 587,4	15,8%
Albertinia Sand Fynbos	FFd9	51 763,8	3 567,2	3 567,2	3 567,2	3 567,2	3 567,2	6,9%
Alexander Bay Coastal Duneveld	Dn1	1 705,2	-	-	-	-	0,0	0,0%
Algoa Sandstone Fynbos	FFs29	34 562,4	641,1	641,1	641,1	658,3	658,3	1,9%
Aliwal North Dry Grassland	Gh2	716 253,8	8 402,0	8 899,7	8 899,7	8 899,7	8 899,7	1,2%
Amathole Mistbelt Grassland	Gd2	15 832,7	-	-	-	-	-	0,0%
Amathole Montane Grassland	Gd1	502 699,1	10 893,2	10 893,2	10 893,2	12 320,3	12 320,3	2,5%
Amersfoort Highveld Clay Grassland	Gm13	392 709,1	9 566,1	9 566,1	9 566,1	9 566,1	20 283,2	5,2%
Andesite Mountain Bushveld	SVcb11	201 784,2	19 467,0	19 467,0	29 635,6	29 681,9	30 787,7	15,3%
Anenous Plateau Shrubland	SKr15	24 176,6	-	-	-	-	-	0,0%
Atlantis Sand Fynbos	FFd4	68 904,4	3 128,0	3 532,1	3 532,1	3 532,1	4 596,9	6,7%
Auob Duneveld	SVkd3	289 804,4	168 907,9	168 907,9	168 907,9	168 907,9	168 907,9	58,3%

Terrestrial ecosystem type	Vegetation type code	Extent of ecosystem type (ha)	Area protected by 2000 (ha)	Area protected by 2005 (ha)	Area protected by 2010 (ha)	Area protected by 2015 (ha)	Area protected by 2020 (ha)	Proportion of ecosystem type protected by 2020 (%)
Barberton Montane Grassland	Gm17	108 741,3	38 604,4	39 205,0	39 205,0	42 818,6	63 561,3	58,5%
Barberton Serpentine Sourveld	SVI13	10 949,0	1 450,2	1 450,2	1 450,2	1 785,1	3 248,1	29,7%
Basotho Montane Shrubland	Gm5	177 739,1	18 024,2	19 232,9	19 232,9	19 232,9	19 235,9	10,8%
Baviaans Valley Thicket	AT19	107 760,1	31 935,5	32 257,6	32 257,6	34 427,3	36 503,6	33,9%
Baviaanskloof Shale Renosterveld	FRs18	11 872,0	4 738,7	4 738,7	4 738,7	7 129,8	7 506,4	63,2%
Bedford Dry Grassland	Gs18	143 382,8	-	-	-	-	-	0,0%
Besemkaree Koppies Shrubland	Gh4	967 784,2	56 825,5	65 067,4	65 067,4	65 067,4	65 067,4	6,7%
Bethelsdorp Bontveld	AT20	3 551,6	33,2	33,2	33,2	33,2	33,2	0,9%
Bhisho Thornveld	SVs7	776 224,0	569,9	569,9	569,9	569,9	2 987,8	0,4%
Bloemfontein Dry Grassland	Gh5	494 961,9	10 957,3	16 140,3	16 140,3	16 140,3	16 140,3	3,3%
Bloemfontein Karroid Shrubland	Gh8	8 047,6	1 316,3	1 409,8	1 409,8	1 409,8	1 409,8	17,5%
Blombos Strandveld	FS8	2 059,3	201,6	449,7	449,7	449,7	449,7	21,8%
Blouputs Karroid Thornveld	NKb2	60 746,1	16 171,2	16 171,2	16 171,2	16 171,2	16 171,2	26,6%
Bokkeveld Sandstone Fynbos	FFs1	101 417,5	7 566,3	7 566,3	7 566,3	7 566,3	7 566,3	7,5%
Boland Granite Fynbos	FFg2	52 394,3	18 809,9	18 809,9	18 901,8	19 157,7	19 396,1	37,0%
Breede Alluvium Fynbos	FFa2	50 166,0	1 659,9	1 659,9	1 659,9	2 088,0	2 088,0	4,2%
Breede Alluvium Renosterveld	FRa1	49 777,9	507,7	507,7	507,7	507,7	509,0	1,0%
Breede Quartzite Fynbos	FFq4	9 784,3	740,2	740,2	740,2	740,2	740,6	7,6%
Breede Sand Fynbos	FFd8	9 768,6	281,1	281,1	281,1	281,1	281,1	2,9%
Breede Shale Fynbos	FFh4	31 814,4	9 548,7	9 548,7	9 548,7	9 702,5	9 702,5	30,5%
Breede Shale Renosterveld	FRs8	104 990,8	7 058,8	7 058,8	7 058,8	7 394,9	7 572,0	7,2%
Buffels Mesic Thicket	AT21	38 632,8	1 176,7	1 176,7	1 176,7	1 176,7	1 351,7	3,5%
Buffels Valley Thicket	AT22	21 545,2	0,3	0,3	0,3	0,3	0,3	0,0%
Bushmanland Arid Grassland	NKb3	4 125 174,4	21 188,6	21 188,6	21 188,6	21 188,6	51 472,2	1,2%
Bushmanland Basin Shrubland	NKb6	4 125 075,3	-	-	-	-	94 310,3	2,3%
Bushmanland Inselberg Shrubland	SKr18	81 772,0	-	-	-	-	4 089,0	5,0%
Bushmanland Sandy Grassland	NKb4	267 714,7	-	-	-	-	217,8	0,1%
Canca Limestone Fynbos	FFI3	78 125,2	520,3	1 136,0	1 136,0	1 136,0	1 136,0	1,5%
Cape Flats Dune Strandveld	FS6	40 250,9	4 350,1	4 350,1	5 219,7	5 219,7	8 561,6	21,3%

Terrestrial ecosystem type	Vegetation type code	Extent of ecosystem type (ha)	Area protected by 2000 (ha)	Area protected by 2005 (ha)	Area protected by 2010 (ha)	Area protected by 2015 (ha)	Area protected by 2020 (ha)	Proportion of ecosystem type protected by 2020 (%)
Cape Flats Sand Fynbos	FFd5	55 695,6	748,0	748,0	798,6	798,6	1 270,4	2,3%
Cape Winelands Shale Fynbos	FFh5	8 389,5	2 772,2	2 772,2	2 772,2	2 772,2	3 661,6	43,6%
Carletonville Dolomite Grassland	Gh15	920 045,3	25 370,8	25 370,8	50 299,5	50 299,5	64 654,1	7,0%
Cathedral Mopane Bushveld	SVmp3	27 706,0	27 705,3	27 705,3	27 705,3	27 705,3	27 705,3	100,0%
Cederberg Sandstone Fynbos	FFs4	252 363,0	135 535,7	135 535,7	141 996,8	148 959,7	148 959,7	59,0%
Central Coastal Shale Band Vegetation	FFb4	6 286,9	4 501,4	4 501,4	4 501,4	4 539,0	4 539,0	72,2%
Central Free State Grassland	Gh6	1 601 289,0	47 270,1	50 753,5	50 753,5	50 753,5	50 753,5	3,2%
Central Inland Shale Band Vegetation	FFb3	9 786,6	8 881,8	8 881,8	8 958,5	9 025,1	9 025,1	92,2%
Central Knersvlakte Vygieveld	SKk2	12 988,8	1,2	1,2	1,2	4 718,8	4 718,8	36,3%
Central Mountain Shale Renosterveld	FRs5	123 651,3	-	-	-	-	-	0,0%
Central Richtersveld Mountain Shrubland	SKr1	120 038,3	37 959,0	37 959,0	86 018,2	86 018,2	86 018,2	71,7%
Central Ruens Shale Renosterveld	FRs12	202 749,8	1 259,1	1 259,1	1 259,1	1 259,1	1 259,1	0,6%
Central Sandy Bushveld	SVcb12	1 725 521,3	115 511,4	115 511,4	115 511,4	124 325,2	144 935,9	8,4%
Ceres Shale Renosterveld	FRs4	49 175,9	711,7	878,9	878,9	878,9	878,9	1,8%
Citrusdal Shale Renosterveld	FRs20	4 699,8	-	-	-	-	-	0,0%
Citrusdal Vygieveld	SKk7	18 520,0	433,5	452,8	452,8	452,8	452,8	2,4%
Crocodile Gorge Mountain Bushveld	SVl27	53 988,8	10 780,7	10 780,7	10 780,7	10 780,7	10 780,7	20,0%
Crossroads Grassland Thicket	AT23	31 118,3	3 248,0	3 248,0	3 248,0	3 248,0	5 457,4	17,5%
De Hoop Limestone Fynbos	FFl2	69 029,3	19 813,3	19 813,3	19 813,3	19 813,3	19 813,3	28,7%
Delagoa Lowveld	SVl4	78 612,9	48 601,7	48 601,7	48 601,7	48 601,7	48 601,7	61,8%
Die Plate Succulent Shrubland	SKr10	12 756,3	-	-	-	-	-	0,0%
Doringrivier Quartzite Karoo	SKv1	54 072,6	1,7	7,4	79,3	79,3	79,3	0,1%
Doubledrift Karroid Thicket	AT24	297 597,1	8 882,3	8 882,3	8 882,3	8 882,3	8 882,3	3,0%
Drakensberg Afroalpine Heathland	Gd10	7 895,1	4 702,7	4 702,7	5 465,4	5 465,4	5 465,4	69,2%
Drakensberg Foothill Moist Grassland	Gs10	1 094 468,8	27 640,7	27 640,7	29 520,7	39 621,3	42 393,1	3,9%
Drakensberg-Amathole Afromontane Fynbos	Gd6	1 757,2	1 340,4	1 340,4	1 350,3	1 350,3	1 350,3	76,8%
Dry Coast Hinterland Grassland	Gs19	302 423,9	4 410,1	4 410,1	4 410,1	4 423,1	4 423,1	1,5%
Dwaalboom Thornveld	SVcb1	966 273,8	162 782,9	162 782,9	162 782,9	162 782,9	162 782,9	16,8%
Dwarsberg-Swartruggens Mountain Bushveld	SVcb4	264 639,4	5 580,1	5 580,1	5 580,1	5 580,1	11 973,2	4,5%

Terrestrial ecosystem type	Vegetation type code	Extent of ecosystem type (ha)	Area protected by 2000 (ha)	Area protected by 2005 (ha)	Area protected by 2010 (ha)	Area protected by 2015 (ha)	Area protected by 2020 (ha)	Proportion of ecosystem type protected by 2020 (%)
East Griqualand Grassland	Gs12	872 813,8	1 995,7	1 995,7	6 400,0	14 499,0	14 499,0	1,7%
Eastern Coastal Shale Band Vegetation	FFb6	7 800,5	1 040,7	1 043,5	1 043,5	1 043,5	1 043,5	13,4%
Eastern Free State Clay Grassland	Gm3	1 402 918,6	21 093,0	26 236,6	26 236,6	26 236,6	26 236,6	1,9%
Eastern Free State Sandy Grassland	Gm4	1 127 849,6	54 602,5	56 268,5	56 268,5	56 268,5	67 170,7	6,0%
Eastern Gariep Plains Desert	Dg9	121 795,2	-	-	-	-	-	0,0%
Eastern Gariep Rocky Desert	Dg10	209 466,9	-	-	-	-	-	0,0%
Eastern Gwarrieveld	AT25	212 900,7	430,4	430,4	430,4	734,6	5 644,9	2,7%
Eastern Highveld Grassland	Gm12	1 277 242,5	16 089,7	16 089,7	16 089,7	71 724,0	71 724,0	5,6%
Eastern Inland Shale Band Vegetation	FFb5	10 836,0	4 453,0	4 453,0	4 453,0	4 598,7	4 706,1	43,4%
Eastern Little Karoo	SKv11	157 850,2	1 207,6	1 207,6	1 207,6	1 207,6	1 500,8	1,0%
Eastern Lower Karoo	NKl2	832 140,5	866,8	972,0	972,0	1 438,9	23 749,3	2,9%
Eastern Ruens Shale Renosterveld	FRs13	276 269,6	3 374,4	3 374,4	3 374,4	3 374,4	3 374,4	1,2%
Eastern Upper Karoo	NKu4	4 983 430,9	55 565,7	55 565,7	55 565,7	78 039,2	162 345,5	3,3%
Eastern Valley Bushveld	SVs6	1 018 556,2	1 301,3	1 301,3	1 570,0	1 896,7	2 269,2	0,2%
Eenriet Plains Succulent Shrubland	SKr17	26 074,6	-	-	-	-	-	0,0%
Egoli Granite Grassland	Gm10	109 318,9	2 612,2	2 612,2	7 141,6	7 141,6	7 865,3	7,2%
Elands Forest Thicket	AT26	4 047,0	84,4	84,4	84,4	84,4	126,1	3,1%
Elgin Shale Fynbos	FFh6	27 948,5	5 091,3	5 091,3	6 239,7	6 242,1	7 062,2	25,3%
Elim Ferricrete Fynbos	FFf1	69 394,5	3 753,7	3 954,1	3 954,1	3 995,0	3 995,0	5,8%
Escarpment Arid Thicket	AT27	123 993,2	3 329,6	12 647,4	12 647,4	12 647,4	17 644,5	14,2%
Escarpment Mesic Thicket	AT28	103 046,3	4 256,8	4 256,8	4 256,8	6 186,6	7 564,6	7,3%
Escarpment Valley Thicket	AT29	78 461,1	78,8	854,1	854,1	854,1	17 599,4	22,4%
Fish Arid Thicket	AT30	67 403,8	2 762,6	2 762,6	2 762,6	2 762,6	13 918,9	20,6%
Fish Mesic Thicket	AT31	24 132,7	652,7	652,7	652,7	652,7	652,7	2,7%
Fish Valley Thicket	AT32	359 622,7	18 869,8	18 869,8	18 869,8	22 237,2	47 029,4	13,1%
Frankfort Highveld Grassland	Gm6	989 163,1	13 241,5	14 204,6	14 204,6	14 204,6	14 204,6	1,4%
Gabbro Grassy Bushveld	SVl6	76 025,6	76 004,4	76 004,4	76 004,4	76 004,4	76 004,4	100,0%
Gamka Arid Thicket	AT33	49 183,2	1 921,8	2 222,1	2 222,1	2 222,1	2 222,1	4,5%
Gamka Karoo	NKl1	2 020 597,0	49 520,6	49 520,6	49 520,6	49 520,6	49 520,6	2,5%

Terrestrial ecosystem type	Vegetation type code	Extent of ecosystem type (ha)	Area protected by 2000 (ha)	Area protected by 2005 (ha)	Area protected by 2010 (ha)	Area protected by 2015 (ha)	Area protected by 2020 (ha)	Proportion of ecosystem type protected by 2020 (%)
Gamka Valley Thicket	AT34	16 752,9	-	-	-	-	-	0,0%
Garden Route Granite Fynbos	FFg5	49 811,4	121,0	121,0	121,0	121,0	121,0	0,2%
Garden Route Shale Fynbos	FFh9	56 464,2	5 091,7	5 129,9	5 129,9	5 129,9	5 129,9	9,1%
Gauteng Shale Mountain Bushveld	SVcb10	102 501,5	746,3	746,3	5 679,3	5 679,3	5 679,3	5,5%
Geluk Grassland Thicket	AT35	3 015,2	-	-	-	-	1 116,0	37,0%
Ghaap Plateau Vaalbosveld	SVk7	1 548 289,7	3 616,4	3 616,4	3 775,1	3 775,1	6 176,4	0,4%
Goariep Mountain Succulent Shrubland	SKr3	17 077,7	-	-	17 077,7	17 077,7	17 077,7	100,0%
Gold Reef Mountain Bushveld	SVcb9	203 097,7	39 036,4	39 036,4	46 149,7	46 149,7	46 149,7	22,7%
Gordonia Duneveld	SVkd1	3 706 314,7	524 645,9	524 645,9	524 645,9	524 645,9	579 499,3	15,6%
Gordonia Kameeldoring Bushveld	SVkd2	224 234,1	85 005,7	85 005,7	85 005,7	85 005,7	85 005,7	37,9%
Gordonia Plains Shrubland	SVk16	791 861,3	68 143,0	68 143,0	68 143,0	68 143,0	119 759,4	15,1%
Goukamma Dune Thicket	AT36	9 141,6	5 200,2	5 389,6	5 389,6	5 389,6	5 389,6	59,0%
Gouritz Valley Thicket	AT37	17 684,2	166,5	166,5	166,5	166,5	166,5	0,9%
Graafwater Sandstone Fynbos	FFs2	134 317,7	6 262,4	6 421,7	7 034,4	7 040,9	7 040,9	5,2%
Grahamstown Grassland Thicket	AT38	129 083,3	926,2	926,2	926,2	926,2	17 202,8	13,3%
Granite Lowveld	SVI3	1 582 267,6	583 435,3	586 864,1	586 864,1	588 109,2	624 844,1	39,5%
Grassridge Bontveld	AT39	24 584,6	3 180,8	3 180,8	3 180,8	3 180,8	3 180,8	12,9%
Gravelotte Rocky Bushveld	SVI7	32 349,3	2 214,7	2 214,7	2 214,7	2 214,7	2 290,3	7,1%
Greyton Shale Fynbos	FFh7	26 662,0	2 103,2	2 103,2	2 103,2	2 103,2	2 103,2	7,9%
Groot Brak Dune Strandveld	FS9	2 804,7	128,8	128,8	128,8	128,8	128,8	4,6%
Grootrivier Quartzite Fynbos	FFq5	38 882,1	-	-	-	-	-	0,0%
Hamburg Dune Thicket	AT56	70 102,4	1 388,0	1 388,0	1 388,0	1 388,3	1 497,3	2,1%
Hangklip Sand Fynbos	FFd6	8 834,6	1 937,9	2 075,8	2 140,8	2 140,8	2 160,2	24,5%
Hantam Karoo	SKt2	763 254,7	2 085,1	2 085,1	2 085,1	2 085,1	2 085,1	0,3%
Hantam Plateau Dolerite Renosterveld	FRd2	57 892,0	244,5	244,5	244,5	244,5	244,5	0,4%
Hartenbos Dune Thicket	AT40	64 972,7	3 879,5	4 106,5	4 106,5	4 106,5	4 106,5	6,3%
Hawequas Sandstone Fynbos	FFs10	105 062,4	87 525,7	87 525,7	87 761,7	87 761,7	87 761,7	83,5%
Helskloof Canyon Desert	Dg6	822,5	608,9	608,9	608,9	608,9	608,9	74,0%
Hopefield Sand Fynbos	FFd3	100 960,6	9 128,0	9 128,0	9 128,0	9 928,5	9 928,5	9,8%

Terrestrial ecosystem type	Vegetation type code	Extent of ecosystem type (ha)	Area protected by 2000 (ha)	Area protected by 2005 (ha)	Area protected by 2010 (ha)	Area protected by 2015 (ha)	Area protected by 2020 (ha)	Proportion of ecosystem type protected by 2020 (%)
Humansdorp Shale Renosterveld	FRs19	37 204,7	14,4	14,4	14,4	14,4	53,1	0,1%
Income Sandy Grassland	Gs7	465 362,8	-	1 695,1	1 695,1	1 695,1	1 695,1	0,4%
Ironwood Dry Forest	FOz9	6 879,5	2 728,9	2 728,9	3 571,2	3 571,2	3 655,2	53,1%
Ithala Quartzite Sourveld	Gs2	105 803,1	12 262,6	12 262,6	12 262,6	12 262,6	12 262,6	11,6%
Kaalrug Mountain Bushveld	SVI12	46 426,5	9 234,3	9 234,3	9 234,3	9 234,3	10 553,3	22,7%
Kahams Mountain Desert	Dg5	59 228,3	12 818,1	12 818,1	57 449,9	57 449,9	57 449,9	97,0%
Kalahari Karroid Shrubland	NKb5	863 367,9	1 170,2	1 170,2	1 170,2	1 170,2	1 170,2	0,1%
Kamiesberg Granite Fynbos	FFg1	6 481,6	-	-	-	-	-	0,0%
Kamiesberg Mountains Shrubland	SKn6	39 684,6	166,5	291,8	291,8	291,8	291,8	0,7%
Kango Conglomerate Fynbos	FFt1	40 496,4	4 807,1	4 807,1	4 807,1	4 807,1	4 807,1	11,9%
Kango Limestone Renosterveld	FRI1	50 167,0	1 382,1	1 382,1	1 382,1	1 382,1	1 382,1	2,8%
KaNgwane Montane Grassland	Gm16	612 402,4	12 181,8	12 181,8	12 181,8	13 212,2	15 725,2	2,6%
Karoo Escarpment Grassland	Gh1	837 062,9	29 326,6	30 040,7	30 040,7	34 591,2	127 350,6	15,2%
Kasouga Dune Thicket	AT41	30 737,0	4 587,5	4 587,5	4 587,5	4 587,5	5 485,3	17,8%
Kathu Bushveld	SVk12	745 261,6	-	-	-	-	18 440,9	2,5%
Kimberley Thornveld	SVk4	1 959 318,7	80 851,6	88 873,0	105 150,5	105 150,5	105 150,5	5,4%
Klawer Sandy Shrubland	SKs13	20 111,9	9,0	9,0	9,0	9,0	9,0	0,0%
Klerksdorp Thornveld	Gh13	393 223,1	10 882,7	10 882,7	10 882,7	10 882,7	10 882,7	2,8%
Knersvlakte Dolomite Vygieveld	SKk6	5 982,8	10,1	10,1	10,1	1 089,9	1 089,9	18,2%
Knersvlakte Quartz Vygieveld	SKk3	132 087,1	220,2	220,2	220,2	39 219,8	39 219,8	29,7%
Knersvlakte Shale Vygieveld	SKk4	98 355,6	-	2 646,7	2 646,7	12 303,6	12 303,6	12,5%
Knysna Sand Fynbos	FFd10	15 207,6	3 514,4	3 515,4	3 515,4	3 678,4	3 678,4	24,2%
Kobee Succulent Shrubland	SKk9	14 276,8	25,8	34,0	34,0	34,0	34,0	0,2%
Koedoesberge-MoordeNaars Karoo	SKv6	471 450,1	1 393,4	1 393,4	1 393,4	1 393,4	1 393,4	0,3%
Koedoeskloof Karroid Thicket	AT42	5 986,2	-	-	-	-	-	0,0%
Kogelberg Sandstone Fynbos	FFs11	91 397,9	63 500,9	63 569,9	64 434,6	64 435,2	70 748,3	77,4%
Koranna-Langeberg Mountain Bushveld	SVk15	162 089,0	-	-	-	-	12 071,8	7,4%
Kosiesberg Succulent Shrubland	SKr12	61 214,7	-	-	6,8	6,8	6,8	0,0%
Kouebokkeveld Alluvium Fynbos	FFa1	18 005,3	160,7	160,7	160,7	2 140,8	2 140,8	11,9%

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Kouebokkeveld Shale Fynbos	FFh1	42 800,1	7 464,2	7 644,8	7 644,8	7 960,6	7 960,6	18,6%
Kouga Grassy Sandstone Fynbos	FFs28	405 216,9	95 981,9	95 981,9	95 981,9	98 450,9	105 031,7	25,9%
Kouga Sandstone Fynbos	FFs27	240 298,4	106 400,0	106 400,0	106 400,0	108 579,2	111 189,2	46,3%
Kuruman Mountain Bushveld	SVk10	436 167,7	-	-	-	-	2 011,6	0,5%
Kuruman Thornveld	SVk9	580 112,8	2 001,7	2 001,7	2 001,7	2 001,7	2 001,7	0,3%
Kuruman Vaalbosveld	SVk8	394 798,3	-	-	-	-	-	0,0%
Kwaggarug Mountain Desert	Dg4	10 780,6	10 780,6	10 780,6	10 780,6	10 780,6	10 780,6	100,0%
KwaZulu-Natal Coastal Belt Grassland	CB3	414 070,2	3 970,7	3 970,7	3 970,7	4 134,2	4 439,5	1,1%
KwaZulu-Natal Coastal Belt Thornveld	CB6	112 119,0	619,0	619,0	635,6	635,6	703,1	0,6%
KwaZulu-Natal Highland Thornveld	Gs6	522 746,4	9 279,1	9 279,1	9 279,1	9 483,5	9 483,5	1,8%
KwaZulu-Natal Hinterland Thornveld	SVs3	153 346,9	419,0	419,0	419,0	1 318,5	2 043,3	1,3%
KwaZulu-Natal Sandstone Sourveld	SVs5	181 260,4	193,3	193,3	193,3	193,3	490,7	0,3%
Lambert's Bay Strandveld	FS1	35 416,8	2 129,5	2 618,4	2 618,4	2 618,4	2 618,4	7,4%
Langebaan Dune Strandveld	FS5	34 311,5	18 998,1	19 074,0	19 074,0	19 074,0	19 102,0	55,7%
Langkloof Shale Renosterveld	FRs17	20 713,2	-	-	-	118,4	118,4	0,6%
Lebombo Summit Sourveld	SVI17	12 735,2	171,4	171,4	171,4	171,4	171,4	1,3%
Legogote Sour Bushveld	SVI9	356 253,6	16 098,1	18 933,1	18 933,1	19 559,0	19 755,3	5,5%
Leipoldtville Sand Fynbos	FFd2	205 566,8	39,7	449,5	2 128,8	2 128,8	2 128,8	1,0%
Lekkersing Succulent Shrubland	SKr4	83 624,4	6 231,8	6 231,8	13 705,8	13 705,8	13 705,8	16,4%
Leolo Summit Sourveld	Gm20	2 034,4	-	-	-	-	-	0,0%
Lesotho Highland Basalt Grassland	Gd8	402 829,3	20 006,7	20 169,6	20 169,6	23 247,4	23 247,4	5,8%
Limpopo Ridge Bushveld	SVmp2	277 914,4	94 124,6	94 124,6	97 172,2	97 172,2	102 173,0	36,8%
Limpopo Sweet Bushveld	SVcb19	1 200 801,0	108 868,5	108 868,5	108 868,5	108 868,5	111 713,0	9,3%
Little Karoo Quartz Vygiveld	SKv10	24 014,4	1 706,9	1 706,9	1 706,9	1 706,9	1 861,7	7,8%
Loerie Conglomerate Fynbos	FFt2	21 116,8	2 293,7	2 293,7	2 293,7	2 293,7	2 293,7	10,9%
Long Tom Pass Montane Grassland	Gm31	104 813,6	32 510,0	32 510,0	32 510,0	42 159,6	42 159,6	40,2%
Loskop Mountain Bushveld	SVcb13	206 630,8	42 735,2	42 735,2	42 735,2	42 735,2	42 735,2	20,7%
Loskop Thornveld	SVcb14	75 991,1	9 600,7	9 600,7	9 600,7	9 600,7	9 600,7	12,6%
Lourensford Alluvium Fynbos	FFa4	3 585,2	975,6	975,6	975,6	975,6	975,6	27,2%

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Low Escarpment Moist Grassland	Gs3	174 228,1	3 224,1	3 224,1	3 316,7	7 741,4	10 407,8	6,0%
Lower Gariep Broken Veld	NKb1	467 097,7	15 821,9	15 821,9	15 821,9	15 821,9	16 592,6	3,6%
Lowveld Riverine Forest	FOa1	13 247,3	7 144,7	7 144,7	7 148,7	7 148,7	7 276,6	54,9%
Lowveld Rugged Mopaneveld	SVmp6	315 410,6	116 976,2	116 976,2	116 976,2	116 976,2	118 186,7	37,5%
Lydenburg Thornveld	Gm21	155 108,2	13 597,9	13 597,9	13 597,9	19 541,8	19 541,8	12,6%
Mabela Sandy Grassland	Gs13	49 294,6	59,0	59,0	59,0	1 025,0	1 025,0	2,1%
Madikwe Dolomite Bushveld	SVcb2	97 395,1	24 990,5	24 990,5	24 990,5	24 990,5	24 990,5	25,7%
Mafikeng Bushveld	SVk1	1 438 113,7	1 661,8	1 661,8	1 661,8	1 661,8	1 661,8	0,1%
Makatini Clay Thicket	SVI21	33 507,0	13 772,0	13 772,0	13 772,0	13 772,0	13 870,0	41,4%
Makhado Sweet Bushveld	SVcb20	1 011 090,7	51 994,2	51 994,2	51 994,2	52 111,3	57 829,2	5,7%
Makuleke Sandy Bushveld	SVI1	209 066,5	67 455,7	67 455,7	75 653,9	75 653,9	98 019,8	46,9%
Malelane Mountain Bushveld	SVI11	63 060,2	49 610,5	49 610,5	49 610,5	49 610,5	49 610,5	78,7%
Mamabolo Mountain Bushveld	SVcb24	66 692,9	6 060,3	7 596,4	8 326,0	8 326,0	8 326,0	12,5%
Mangrove Forest	FOa3	4 301,8	3 027,7	3 027,7	3 027,7	3 027,7	3 027,7	70,4%
Maputaland Coastal Belt	CB1	235 481,6	43 313,7	43 313,7	43 313,7	43 313,7	43 313,7	18,4%
Maputaland Pallid Sandy Bushveld	SVI25	66 058,4	11 127,5	11 127,5	11 127,5	11 127,5	13 066,5	19,8%
Maputaland Wooded Grassland	CB2	112 205,6	22 232,6	22 232,6	22 232,6	22 232,6	22 232,6	19,8%
Marikana Thornveld	SVcb6	252 870,2	2 605,8	2 605,8	2 605,8	2 749,5	2 749,5	1,1%
Matjiesfontein Quartzite Fynbos	FFq3	126 816,2	7 356,7	9 738,4	9 738,4	9 738,4	11 308,7	8,9%
Matjiesfontein Shale Fynbos	FFh2	10 653,1	3 081,8	3 250,8	3 250,8	3 250,8	3 811,0	35,8%
Matjiesfontein Shale Renosterveld	FRs6	209 585,2	20 535,7	22 680,0	22 680,0	22 680,0	24 992,3	11,9%
Midlands Mistbelt Grassland	Gs9	697 219,0	4 690,4	6 517,9	9 555,3	17 795,2	19 086,4	2,7%
Moist Coast Hinterland Grassland	Gs20	628 057,6	958,3	958,3	958,3	1 000,2	1 005,4	0,2%
Molopo Bushveld	SVk11	2 276 596,1	23 508,5	23 508,5	23 508,5	23 508,5	23 508,5	1,0%
Mons Ruber Fynbos Thicket	AT43	28 619,5	127,0	127,0	127,0	127,0	127,0	0,4%
Montagu Shale Fynbos	FFh8	18 675,6	739,3	2 390,5	2 390,5	2 390,5	2 390,5	12,8%
Montagu Shale Renosterveld	FRs7	160 790,1	7 167,1	10 865,4	11 634,0	11 829,1	11 860,1	7,4%
Mooi River Highland Grassland	Gs8	286 242,5	6 460,2	8 368,9	10 824,5	16 192,1	18 477,4	6,5%
Moot Plains Bushveld	SVcb8	290 082,0	7 792,2	7 792,2	9 449,4	9 449,4	13 247,0	4,6%

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Mopane Basalt Shrubland	SVmp4	280 476,7	280 476,7	280 476,7	280 476,7	280 476,7	280 476,7	100,0%
Mopane Gabbro Shrubland	SVmp8	31 046,1	31 045,5	31 045,5	31 045,5	31 045,5	31 045,5	100,0%
Mossel Bay Shale Renosterveld	FRs14	86 654,0	158,9	158,9	158,9	158,9	158,9	0,2%
Motherwell Karroid Thicket	AT44	16 343,0	3,7	3,7	3,7	3,7	3,7	0,0%
Mthatha Moist Grassland	Gs14	528 164,2	173,1	173,1	173,1	173,1	173,1	0,0%
Musina Mopane Bushveld	SVmp1	879 614,5	97 468,0	97 468,0	97 468,0	97 468,0	112 738,2	12,8%
Muzi Palm Veld and Wooded Grassland	SVI26	70 352,4	4 853,4	4 853,4	4 853,4	4 853,4	4 853,4	6,9%
Namaqualand Arid Grassland	SKs11	28 697,3	-	8 581,8	8 581,8	8 581,8	8 581,8	29,9%
Namaqualand Blomveld	SKn3	310 799,2	5 757,9	6 879,0	6 879,0	6 879,0	6 879,0	2,2%
Namaqualand Coastal Duneveld	SKs8	86 599,2	574,8	17 789,3	17 789,3	17 789,3	17 789,3	20,5%
Namaqualand Granite Renosterveld	FRg1	30 548,7	287,2	287,2	287,2	287,2	287,2	0,9%
Namaqualand Heuveltjie Strandveld	SKs14	83 835,5	453,0	9 759,2	9 759,2	9 759,2	9 759,2	11,6%
Namaqualand Heuveltjieveld	SKn4	504 059,5	1 050,8	22 726,2	22 726,2	25 452,6	25 581,7	5,1%
Namaqualand Inland Duneveld	SKs9	91 724,6	727,5	10 483,1	10 483,1	10 483,1	10 483,1	11,4%
Namaqualand Klipkoppe Shrubland	SKn1	758 221,7	25 402,8	49 396,8	49 396,8	49 396,8	50 124,0	6,6%
Namaqualand Sand Fynbos	FFd1	130 097,2	373,3	10 462,3	10 462,3	10 462,3	10 462,3	8,0%
Namaqualand Shale Shrubland	SKn2	53 936,2	-	-	-	-	-	0,0%
Namaqualand Spinescent Grassland	SKs12	46 991,8	1 617,1	1 617,1	1 617,1	3 487,9	3 487,9	7,4%
Namaqualand Strandveld	SKs7	315 139,8	1 471,3	22 295,8	22 295,8	22 295,8	22 295,8	7,1%
Namib Lichen Fields	Dn2	154,0	-	-	-	-	-	0,0%
Nanaga Savanna Thicket	AT45	69 702,9	1 774,0	1 774,0	1 774,0	1 774,0	14 890,8	21,4%
Nardouw Sandstone Fynbos	FFs32	54 796,4	0,6	0,6	0,6	0,6	0,6	0,0%
Ngongoni Veld	SVs4	80 313,3	-	-	-	-	-	0,0%
Nieuwoudtville Shale Renosterveld	FRs2	21 882,3	19,2	19,2	19,2	19,2	19,2	0,1%
Nieuwoudtville-Roggeveld Dolerite Renosterveld	FRd1	21 951,3	707,0	707,0	707,0	707,0	707,0	3,2%
Noms Mountain Desert	Dg1	33 592,5	33 592,5	33 592,5	33 592,5	33 592,5	33 592,5	100,0%
Norite Koppies Bushveld	SVcb7	26 009,0	986,3	986,3	986,3	986,3	986,3	3,8%
North Hex Sandstone Fynbos	FFs7	39 409,3	30 330,1	31 228,3	31 228,3	31 228,3	31 228,3	79,2%
North Kammanassie Sandstone Fynbos	FFs25	33 258,9	26 362,7	26 362,7	26 362,7	26 362,7	26 362,7	79,3%

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North Langeberg Sandstone Fynbos	FFs15	99 482,3	57 714,1	58 218,0	58 218,0	58 218,0	58 218,0	58,5%
North Outeniqua Sandstone Fynbos	FFs18	87 881,4	9 833,5	9 833,5	9 833,5	9 833,5	9 894,4	11,3%
North Rooiberg Sandstone Fynbos	FFs21	31 832,2	16 529,0	16 529,0	18 477,5	20 203,9	20 292,7	63,7%
North Sonderend Sandstone Fynbos	FFs13	53 149,5	39 089,5	39 089,5	39 089,5	39 089,5	39 089,5	73,5%
North Swartberg Sandstone Fynbos	FFs23	85 219,7	69 033,0	69 156,0	69 156,0	69 156,0	69 156,0	81,2%
Northern Afrotemperate Forest	FOz2	19 386,5	4 243,5	4 243,5	5 929,8	7 060,0	7 154,0	36,9%
Northern Coastal Forest	FOz7	67 752,7	36 438,1	36 438,1	36 482,5	36 586,9	36 759,8	54,3%
Northern Drakensberg Highland Grassland	Gd5	121 859,0	41 576,7	42 146,0	48 525,3	48 618,3	48 618,3	39,9%
Northern Escarpment Afromontane Fynbos	Gm24	1 000,3	577,1	736,5	736,5	756,5	756,5	75,6%
Northern Escarpment Dolomite Grassland	Gm22	93 914,6	2 373,6	2 373,6	2 373,6	2 580,4	2 841,3	3,0%
Northern Escarpment Quartzite Sourveld	Gm23	137 391,4	28 538,6	31 063,0	31 063,0	32 613,1	34 954,4	25,4%
Northern Free State Shrubland	Gm7	3 002,5	49,0	49,0	49,0	49,0	49,0	1,6%
Northern Inland Shale Band Vegetation	FFb1	27 902,3	20 531,9	20 735,1	21 237,1	21 922,7	21 922,7	78,6%
Northern Knersvlakte Vygieveld	SKk1	167 378,3	-	30,3	30,3	24 002,4	24 002,4	14,3%
Northern KwaZulu-Natal Moist Grassland	Gs4	744 041,3	7 753,4	13 813,8	16 809,2	20 934,9	22 514,4	3,0%
Northern Lebombo Bushveld	SVI15	133 634,5	132 923,5	132 923,5	132 923,5	132 923,5	132 923,5	99,5%
Northern Mistbelt Forest	FOz4	37 895,3	13 862,6	19 072,4	19 072,4	19 704,9	20 865,4	55,1%
Northern Nababiepsberge Mountain Desert	Dg7	24 701,0	163,7	163,7	163,7	163,7	163,7	0,7%
Northern Richtersveld Scorpionstailveld	SKr7	32 715,3	7 423,9	7 423,9	11 903,2	11 903,2	11 903,2	36,4%
Northern Richtersveld Yellow Duneveld	SKs2	53 608,5	-	-	-	-	-	0,0%
Northern Upper Karoo	NKu3	4 227 357,3	18 502,6	18 604,1	23 356,2	23 356,2	23 356,2	0,6%
Northern Zululand Mistbelt Grassland	Gs1	53 924,1	1 803,9	1 803,9	1 803,9	1 803,9	1 803,9	3,3%
Northern Zululand Sourveld	SVI22	477 077,0	22 507,1	22 507,1	32 536,9	38 322,4	38 322,4	8,0%
Nossob Bushveld	SVkd4	76 242,7	76 242,7	76 242,7	76 242,7	76 242,7	76 242,7	100,0%
Nwambyia-Pumbe Sandy Bushveld	SVI2	18 178,9	18 163,6	18 163,6	18 163,6	18 163,6	18 163,6	99,9%
Ohrigstad Mountain Bushveld	SVcb26	200 002,5	19 824,8	27 493,6	27 493,6	28 372,0	28 372,0	14,2%
Olifants Sandstone Fynbos	FFs3	49 825,6	34 734,6	34 734,6	34 734,6	34 734,6	34 734,6	69,7%
Olifantshoek Plains Thornveld	SVk13	851 768,6	3 428,5	3 428,5	3 428,5	3 428,5	40 210,7	4,7%
Oograbies Plains Sandy Grassland	SKs6	12 330,4	-	-	-	-	-	0,0%

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Oudtshoorn Karroid Thicket	AT46	57 190,0	10 390,9	10 632,2	13 909,4	15 832,5	17 622,9	30,8%
Overberg Dune Strandveld	FS7	34 505,6	15 693,3	15 693,3	15 693,3	15 693,3	15 693,3	45,5%
Overberg Sandstone Fynbos	FFs12	117 938,5	13 355,1	13 656,1	13 656,1	13 656,1	13 716,9	11,6%
Paulpietersburg Moist Grassland	Gm15	421 679,8	5 633,9	5 633,9	11 643,7	20 743,6	20 743,6	4,9%
Peninsula Granite Fynbos	FFg3	9 129,5	3 325,6	3 325,6	3 326,5	3 326,5	3 326,5	36,4%
Peninsula Sandstone Fynbos	FFs9	21 927,2	18 540,8	18 540,8	19 281,5	19 281,5	19 281,5	87,9%
Peninsula Shale Fynbos	FFh11	1 262,7	745,1	745,1	745,1	745,1	745,1	59,0%
Peninsula Shale Renosterveld	FRs10	2 514,9	267,7	267,7	275,5	275,5	275,5	11,0%
Phalaborwa-Timbavati Mopaneveld	SVmp7	222 555,5	143 332,6	143 332,6	143 332,6	143 332,6	143 892,8	64,7%
Piketberg Quartz Succulent Shrubland	SKk8	285,6	-	-	-	-	-	0,0%
Piketberg Sandstone Fynbos	FFs6	42 286,1	-	775,2	823,7	823,7	823,7	1,9%
Pilanesberg Mountain Bushveld	SVcb5	43 498,9	42 203,0	42 203,0	42 203,0	42 203,0	42 203,0	97,0%
Platbakkies Succulent Shrubland	SKn5	65 334,0	161,0	161,0	161,0	161,0	439,8	0,7%
Polokwane Plateau Bushveld	SVcb23	444 532,6	14 429,9	14 436,7	14 436,7	14 436,7	14 992,9	3,4%
Pondoland-Ugu Sandstone Coastal Sourveld	CB4	129 876,3	9 303,3	9 303,3	9 303,3	9 484,4	9 484,4	7,3%
Postmasburg Thornveld	SVk14	92 923,0	-	-	-	-	-	0,0%
Potberg Ferricrete Fynbos	FFf2	4 057,3	223,1	223,1	223,1	223,1	223,1	5,5%
Potberg Sandstone Fynbos	FFs17	10 745,4	5 475,2	5 475,2	5 475,2	5 475,2	5 475,2	51,0%
Poung Dolomite Mountain Bushveld	SVcb25	89 134,8	9 549,6	12 816,2	14 151,8	14 151,8	14 461,2	16,2%
Pretoriuskop Sour Bushveld	SVI10	94 279,5	40 645,2	40 645,2	40 645,2	40 645,2	40 645,2	43,1%
Prince Albert Succulent Karoo	SKv13	255 521,7	6 286,9	6 963,7	6 963,7	6 963,7	6 963,7	2,7%
Queenstown Thornveld	Gs16	360 630,3	2 886,0	2 886,0	2 886,0	2 886,0	2 886,0	0,8%
Rand Highveld Grassland	Gm11	1 030 644,6	17 509,5	17 509,5	17 509,5	22 055,6	22 437,1	2,2%
Richtersberg Mountain Desert	Dg2	36 142,9	36 142,9	36 142,9	36 142,9	36 142,9	36 142,9	100,0%
Richtersveld Coastal Duneveld	SKs1	50 711,5	-	-	-	-	-	0,0%
Richtersveld Red Duneveld	SKs5	56 610,4	-	-	-	-	-	0,0%
Richtersveld Sandy Coastal Scorpionstailveld	SKs4	44 905,5	-	-	-	-	-	0,0%
Richtersveld Sheet Wash Desert	Dg3	16 007,0	16 007,0	16 007,0	16 007,0	16 007,0	16 007,0	100,0%
Riethuis-Wallekraal Quartz Vygieveld	SKs10	13 641,5	-	9 832,1	9 832,1	9 832,1	9 832,1	72,1%

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Robertson Granite Fynbos	FFg4	1 699,6	703,8	703,8	703,8	703,8	703,8	41,4%
Robertson Granite Renosterveld	FRg3	1 923,0	551,7	551,7	551,7	551,7	551,7	28,7%
Robertson Karoo	SKv7	65 336,9	1 976,9	1 976,9	1 976,9	1 976,9	2 006,5	3,1%
Roggeveld Karoo	SKt3	535 796,3	348,9	348,9	348,9	348,9	348,9	0,1%
Roggeveld Shale Renosterveld	FRs3	321 747,0	11 033,8	11 033,8	11 033,8	11 033,8	11 033,8	3,4%
Roodeberg Bushveld	SVcb18	649 636,8	62 505,4	62 505,4	62 505,4	62 505,4	67 800,0	10,4%
Rooiberg Quartz Vygiveld	SKr11	12 927,5	468,6	468,6	6 133,0	6 133,0	6 133,0	47,4%
Rosyntjieberg Succulent Shrubland	SKr8	5 055,2	5 055,2	5 055,2	5 055,2	5 055,2	5 055,2	100,0%
Ruens Silcrete Renosterveld	FRc2	20 975,9	119,2	119,2	119,2	126,3	126,3	0,6%
Saldanha Flats Strandveld	FS3	164 329,1	10 498,4	10 515,1	10 515,1	10 715,5	10 715,5	6,5%
Saldanha Granite Strandveld	FS2	29 808,4	3 160,9	3 160,9	3 160,9	3 160,9	3 160,9	10,6%
Saldanha Limestone Strandveld	FS4	6 142,5	1 085,6	1 085,6	1 085,6	1 085,6	1 085,6	17,7%
Saltaire Karroid Thicket	AT47	91 054,2	227,7	3 338,7	3 338,7	3 338,7	4 047,9	4,4%
Sand Forest	FOz8	26 534,1	11 148,7	11 148,7	11 148,7	11 148,7	11 171,5	42,1%
Sardinia Forest Thicket	AT48	2 526,1	2,3	2,3	2,3	2,3	2,3	0,1%
Scarp Forest	FOz5	82 518,7	21 481,2	22 435,0	22 435,0	22 477,4	23 100,5	28,0%
Schmidtsdrif Thornveld	SVk6	503 898,9	1 734,2	7 040,6	7 040,6	7 040,6	7 040,6	1,4%
Schweizer-Reneke Bushveld	SVk3	202 752,1	4 576,3	4 576,3	4 576,3	4 576,3	4 576,3	2,3%
Sekhukhune Montane Grassland	Gm19	138 087,8	1 063,5	1 063,5	1 063,5	1 063,5	1 845,8	1,3%
Sekhukhune Mountain Bushveld	SVcb28	231 609,5	10 718,4	10 718,4	10 718,4	10 718,4	26 083,2	11,3%
Sekhukhune Plains Bushveld	SVcb27	252 283,3	4 007,2	5 201,2	5 201,2	5 201,2	5 201,2	2,1%
Senqu Montane Shrubland	Gm2	72 052,1	-	-	-	-	-	0,0%
South Eastern Coastal Thornveld	SVs8	158 987,7	1 941,6	1 941,6	1 941,6	1 943,7	4 876,6	3,1%
South Hex Sandstone Fynbos	FFs8	31 974,6	29 105,2	29 143,1	29 143,1	29 143,1	29 143,1	91,1%
South Kammanassie Sandstone Fynbos	FFs26	30 418,2	21 614,1	21 614,1	21 614,1	21 614,1	21 614,1	71,1%
South Langeberg Sandstone Fynbos	FFs16	122 365,2	92 334,8	92 594,0	92 594,0	93 285,0	93 285,0	76,2%
South Outeniqua Sandstone Fynbos	FFs19	157 088,9	60 400,2	60 402,8	60 402,8	61 030,3	61 030,3	38,9%
South Rooiberg Sandstone Fynbos	FFs22	38 831,2	16 666,4	16 666,4	17 951,6	20 174,0	22 679,7	58,4%
South Sonderend Sandstone Fynbos	FFs14	35 889,2	27 978,6	27 978,6	27 978,6	27 978,6	27 978,6	78,0%

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South Swartberg Sandstone Fynbos	FFs24	108 479,5	87 283,7	88 327,6	88 327,6	88 327,6	88 327,6	81,4%
Southern Afrotemperate Forest	FOz1	77 490,3	47 761,8	47 969,4	47 969,4	47 994,1	47 994,1	61,9%
Southern Cape Dune Fynbos	FFd11	8 128,4	191,8	191,8	191,8	191,8	191,8	2,4%
Southern Coastal Forest	FOz6	18 514,6	9 270,8	9 270,8	9 270,8	9 270,8	9 355,5	50,5%
Southern Drakensberg Highland Grassland	Gd4	664 592,7	61 693,4	61 693,4	62 370,4	63 786,9	63 786,9	9,6%
Southern KwaZulu-Natal Moist Grassland	Gs11	234 212,8	3 957,1	9 404,4	9 567,7	10 130,9	13 166,0	5,6%
Southern Lebombo Bushveld	SVI16	130 211,1	11 977,1	11 977,1	11 977,1	11 977,1	17 298,6	13,3%
Southern Mistbelt Forest	FOz3	106 215,8	13 438,9	15 760,1	15 878,5	17 834,4	18 550,8	17,5%
Southern Nababiepsberge Mountain Desert	Dg8	34 319,9	257,5	257,5	257,5	257,5	257,5	0,8%
Southern Namaqualand Quartzite Klipkoppe Shrubland	SKn7	99 715,1	-	-	-	2 089,9	2 089,9	2,1%
Southern Richtersveld Inselberg Shrubland	SKr14	36 557,7	-	-	-	-	-	0,0%
Southern Richtersveld Scorpionstailveld	SKr13	72 266,4	14,5	14,5	14,5	14,5	14,5	0,0%
Southern Richtersveld Yellow Duneveld	SKs3	33 139,8	-	-	-	-	-	0,0%
Soutpansberg Mountain Bushveld	SVcb21	414 801,8	9 643,5	9 643,5	10 837,3	15 012,8	77 004,4	18,6%
Soutpansberg Summit Sourveld	Gm28	9 388,6	533,5	533,5	533,5	2 696,6	2 875,6	30,6%
Soweto Highveld Grassland	Gm8	1 457 365,5	18 627,7	18 627,7	18 847,6	18 847,6	27 211,7	1,9%
Springbokvlakte Thornveld	SVcb15	892 845,6	59 758,8	59 758,8	59 758,8	61 726,5	61 726,5	6,9%
St Francis Dune Thicket	AT57	26 352,7	2 350,6	2 350,6	2 352,1	2 352,1	2 513,4	9,5%
Steenkampsberg Montane Grassland	Gm30	385 869,4	16 056,8	16 056,8	16 056,8	16 075,6	30 222,2	7,8%
Stella Bushveld	SVk2	322 118,1	-	-	-	-	-	0,0%
Steytlerville Karoo	SKv14	79 332,4	-	-	-	-	-	0,0%
Stinkfonteinberge Eastern Apron Shrubland	SKr6	6 586,9	94,8	94,8	6 586,9	6 586,9	6 586,9	100,0%
Stinkfonteinberge Quartzite Fynbos	FFq1	4 902,8	1 478,8	1 478,8	4 902,8	4 902,8	4 902,8	100,0%
Stormberg Plateau Grassland	Gd3	296 624,5	-	-	-	-	-	0,0%
Strydpoort Summit Sourveld	Gm27	26 805,1	3 084,8	7 155,4	7 304,4	7 304,4	7 304,4	27,2%
Sundays Arid Thicket	AT49	564 705,7	35 889,0	42 949,1	42 949,1	90 170,2	94 400,4	16,7%
Sundays Mesic Thicket	AT50	58 021,2	22 024,8	22 024,8	22 024,8	22 087,6	22 203,5	38,3%
Sundays Valley Thicket	AT51	196 340,9	24 074,1	24 074,1	24 074,1	24 074,1	24 074,1	12,3%
Suurberg Quartzite Fynbos	FFq6	68 326,2	11 974,6	12 172,5	12 172,5	12 234,1	15 499,3	22,7%

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Suurberg Shale Fynbos	FFh10	28 326,2	12 180,8	12 180,8	12 180,8	12 180,8	12 925,2	45,6%
Swamp Forest	FOa2	10 033,0	4 901,8	4 901,8	4 901,8	4 902,0	4 902,0	48,9%
Swartberg Altimontane Sandstone Fynbos	FFs31	5 083,0	5 081,0	5 081,0	5 081,0	5 081,0	5 081,0	100,0%
Swartberg Shale Fynbos	FFh3	7 513,4	861,3	861,3	861,3	861,3	861,3	11,5%
Swartberg Shale Renosterveld	FRs15	27 639,3	2 574,9	2 615,9	2 615,9	2 615,9	2 615,9	9,5%
Swartland Alluvium Fynbos	FFa3	47 719,9	1 143,2	1 198,8	4 056,5	4 056,5	4 056,5	8,5%
Swartland Alluvium Renosterveld	FRa2	6 306,2	-	-	-	-	-	0,0%
Swartland Granite Renosterveld	FRg2	95 131,1	1 545,2	1 803,6	1 816,9	1 877,2	1 934,5	2,0%
Swartland Shale Renosterveld	FRs9	496 376,8	3 003,9	4 272,0	7 070,9	7 243,3	7 382,2	1,5%
Swartland Silcrete Renosterveld	FRc1	10 105,7	29,0	29,0	29,0	29,0	29,0	0,3%
Swartruggens Quartzite Fynbos	FFq2	164 618,7	29 759,1	30 748,9	30 748,9	41 060,1	41 060,1	24,9%
Swartruggens Quartzite Karoo	SKv2	55 937,1	5 711,9	5 711,9	5 711,9	6 872,4	6 872,4	12,3%
Swaziland Sour Bushveld	SVI14	138 117,8	37 731,3	42 795,8	42 795,8	42 795,8	57 520,7	41,6%
Swellendam Silcrete Fynbos	FFc1	86 850,6	4 533,6	4 533,6	4 533,6	4 535,0	4 535,0	5,2%
Tanqua Escarpment Shrubland	SKv4	131 836,2	18 597,0	18 597,0	18 597,0	18 597,0	18 597,0	14,1%
Tanqua Karoo	SKv5	698 831,3	95 446,9	97 825,7	97 825,7	97 825,7	97 825,7	14,0%
Tarkastad Montane Shrubland	Gs17	424 225,5	8 378,2	8 378,2	8 378,2	8 378,2	15 962,5	3,8%
Tatasberg Mountain Succulent Shrubland	SKr9	326,6	326,6	326,6	326,6	326,6	326,6	100,0%
Tembe Sandy Bushveld	SVI18	112 436,2	17 995,8	17 995,8	17 995,8	17 995,8	22 043,9	19,6%
Thorndale Forest Thicket	AT52	4 359,4	-	-	-	-	435,1	10,0%
Thukela Thornveld	SVs2	221 561,6	1 633,3	1 633,3	1 633,3	6 655,1	6 655,1	3,0%
Thukela Valley Bushveld	SVs1	270 657,1	1 265,5	1 265,5	1 265,5	1 265,5	1 265,5	0,5%
Transkei Coastal Belt	CB5	164 819,8	2 321,4	2 321,4	2 321,4	2 321,4	2 321,4	1,4%
Tsakane Clay Grassland	Gm9	131 322,4	10 439,4	10 439,4	10 439,4	10 439,4	10 439,4	7,9%
Tsende Mopaneveld	SVmp5	531 529,6	351 850,3	351 850,3	351 850,3	351 850,3	377 742,6	71,1%
Tshokwane-Hlane Basalt Lowveld	SVI5	285 345,7	225 496,2	225 496,2	225 496,2	225 496,2	225 496,2	79,0%
Tsitsikamma Sandstone Fynbos	FFs20	229 583,0	85 679,9	85 679,9	85 679,9	85 908,9	85 908,9	37,4%
Tsomo Grassland	Gs15	613 725,0	144,5	144,5	144,5	144,5	144,5	0,0%
Tzaneen Sour Bushveld	SVI8	339 953,4	12 804,7	12 804,7	12 804,7	12 804,7	14 793,9	4,4%

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uKhahlamba Basalt Grassland	Gd7	134 347,2	103 536,0	103 536,0	106 926,4	106 926,4	106 926,4	79,6%
Umdaus Mountains Succulent Shrubland	SKr16	43 284,7	-	-	-	-	-	0,0%
Umtiza Forest Thicket	AT53	2 709,8	381,8	381,8	381,8	381,8	1 323,2	48,8%
Uniondale Shale Renosterveld	FRs16	134 779,8	3 361,9	3 361,9	3 361,9	3 361,9	3 361,9	2,5%
Upper Annisvlakte Succulent Shrubland	SKr2	19 210,9	-	-	4 774,8	4 774,8	4 774,8	24,9%
Upper Karoo Hardeveld	NKu2	1 173 430,0	43 090,3	46 059,9	46 059,9	53 864,3	96 181,9	8,2%
Vaal Reefs Dolomite Sinkhole Woodland	Gh12	34 694,5	-	25,0	25,0	25,0	25,0	0,1%
Vaalbos Rocky Shrubland	SVk5	145 786,2	4 572,4	4 621,1	9 462,7	9 462,7	9 462,7	6,5%
Vaal-Vet Sandy Grassland	Gh10	2 284 386,0	35 951,6	36 574,1	36 574,1	36 574,1	36 574,1	1,6%
Vanrhynsdorp GanNabosveld	SKk5	98 855,2	19,6	1 278,3	1 278,3	1 278,3	1 278,3	1,3%
Vanrhynsdorp Shale Renosterveld	FRs1	20 730,9	1 407,6	1 408,7	1 408,7	1 408,7	1 408,7	6,8%
Vanstadens Forest Thicket	AT54	18 776,8	10 973,8	10 973,8	10 973,8	10 973,8	10 973,8	58,4%
VhaVenda Miombo	SVcb22	33,4	-	-	-	-	33,4	100,0%
Vredefort Dome Granite Grassland	Gh11	92 157,6	339,1	339,1	339,1	339,1	339,1	0,4%
Vyftienmyl se Berge Succulent Shrubland	SKr5	1 837,2	1 539,8	1 539,8	1 539,8	1 539,8	1 539,8	83,8%
Wakkerstroom Montane Grassland	Gm14	375 041,5	3 300,5	7 786,4	26 826,5	35 670,0	37 102,3	9,9%
Waterberg Mountain Bushveld	SVcb17	882 361,6	105 122,6	105 989,2	105 989,2	142 159,4	182 302,3	20,7%
Waterberg-Magabiesberg Summit Sourveld	Gm29	52 586,6	12 993,3	12 993,3	12 993,3	13 066,9	13 066,9	24,8%
Western Altimontane Sandstone Fynbos	FFs30	3 752,3	3 596,6	3 749,9	3 749,9	3 749,9	3 749,9	99,9%
Western Bushmanland Klipveld	SKt1	10 177,3	-	-	-	-	-	0,0%
Western Coastal Shale Band Vegetation	FFb2	13 452,5	9 160,6	9 185,0	9 257,6	9 257,6	9 506,6	70,7%
Western Free State Clay Grassland	Gh9	707 436,1	16 945,9	18 565,0	18 565,0	18 565,0	18 565,0	2,6%
Western Gariep Hills Desert	Dn5	41 829,1	4 999,5	4 999,5	4 999,5	4 999,5	4 999,5	12,0%
Western Gariep Lowland Desert	Dn4	21 701,7	-	-	43,8	43,8	628,2	2,9%
Western Gariep Plains Desert	Dn3	13 990,9	-	-	-	-	194,6	1,4%
Western Gwarrieveld	AT55	76 037,3	2 873,2	2 873,2	5 113,5	5 515,9	6 542,8	8,6%
Western Highveld Sandy Grassland	Gh14	859 232,1	2 622,4	2 622,4	2 622,4	2 622,4	2 622,4	0,3%
Western Little Karoo	SKv8	410 899,5	45 767,6	45 964,4	45 964,4	45 964,4	47 506,6	11,6%
Western Maputaland Clay Bushveld	SVl20	164 492,4	32 836,2	32 836,2	32 836,2	32 906,7	33 979,3	20,7%

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Western Maputaland Sandy Bushveld	SVI19	15 294,4	2 975,1	2 975,1	2 975,1	2 975,1	2 975,1	19,5%
Western Ruens Shale Renosterveld	FRs11	119 365,1	1 343,6	1 343,6	1 343,6	1 343,6	1 343,6	1,1%
Western Sandy Bushveld	SVcb16	649 417,8	134 459,0	134 459,0	134 459,0	142 778,8	142 852,9	22,0%
Western Upper Karoo	NKu1	1 714 962,3	67,4	67,4	67,4	67,4	2 132,7	0,1%
Willowmore Gwarrieveld	AT58	225 231,2	225,0	225,0	225,0	225,0	225,0	0,1%
Winburg Grassy Shrubland	Gh7	157 198,3	7 016,2	7 603,5	7 603,5	7 603,5	7 603,5	4,8%
Winterhoek Sandstone Fynbos	FFs5	113 596,9	87 786,5	88 125,0	88 125,0	92 254,9	92 254,9	81,2%
Wolkberg Dolomite Grassland	Gm26	26 060,1	4 623,1	11 612,1	11 612,1	11 612,1	11 612,1	44,6%
Woodbush Granite Grassland	Gm25	43 062,0	1 682,1	1 682,1	1 682,1	1 682,1	1 834,2	4,3%
Xhariep Karroid Grassland	Gh3	1 339 240,9	50 449,3	56 601,6	56 601,6	56 601,6	56 601,6	4,2%
Zastron Moist Grassland	Gm1	357 176,9	2 212,9	2 212,9	2 212,9	2 212,9	2 212,9	0,6%
Zeerust Thornveld	SVcb3	412 804,3	25 893,7	25 893,7	25 893,7	25 893,7	25 893,7	6,3%
Zululand Coastal Thornveld	SVI24	69 462,6	-	-	-	-	-	0,0%
Zululand Lowveld	SVI23	709 452,4	68 616,5	68 616,5	96 036,2	135 267,8	144 236,9	20,3%

PREVIOUS PUBLICATIONS IN THE NATURAL CAPITAL SERIES

Statistics South Africa (Stats SA). 2020. Natural Capital 1: Land and Terrestrial Ecosystem Accounts, 1990 to 2014. Discussion document D0401.1. Produced in collaboration with the South African National Biodiversity Institute and the Department of Forestry, Fisheries and the Environment. Statistics South Africa, Pretoria.

