C. Regional Organisation:
   (i) District control:
       1 Senior Nature Conservation Officer

   (ii) Regional Control:
       16 Nature Conservation Officers stationed at:
         (a) Pretoria (2)
         (b) Rustenburg
         (c) Barberspan
         (d) Vereeniging
         (e) Ermelo
         (f) Groblersdal
         (g) Lydenburg
         (h) Komatipoort
         (i) Pilgrim’s Rest
         (j) Pilgrim’s Rest
         (k) Letaba
         (l) Sibasa
         (m) Soutpansberg West
         (n) Pietersburg
         (o) Nylstroom

   (iii) Sub-section for Vermin Control:
       1 Senior Hound Master
       2 Hound Masters.

   (iv) Sub-section for Recreation in Nature:
        Loskop Dam Public Resort and Nature Reserve:
        1 Farm manager
        1 Farm Foreman, Grade II.

D. Information and Publicity Section:
   1 Senior Professional Officer
   1 Technician (Artist).

E. Administrative and Clerical Section:
   (i) Control:
       1 Senior Administrative Officer.

   (ii) Sub-section for Office Administration and Clerical matters: Country Offices:
       1 Administrative Officer
       1 Clerical Assistant, Grade I.

   (iii) Lydenburg:
       1 Clerical Assistant, Grade I.
       1 Female Assistant.
(ii) Marble Hall:
   1 Clerical Assistant, Grade II.

(iii) S. A. Lombard:
   1 Clerical Assistant, Grade II.

(iii) Sub-section for Law enforcement and Information and Publicity:
   1 Administrative Officer
   1 Clerical Assistant, Grade II.

(iv) Registry and Typing Sub-section:
   3 Typists
   2 Female Assistants

(v) Sub-section for Loskop Dam Public Resort:
   1 Clerical Assistant, Grade II.

(d) Research:

(i) Fish and Aquatic Life:
   At the Lydenburg Fisheries Institute as well as at the Lowveld Fisheries Research Station and the Hartebeestpoort Dam Fish Hatcheries research is carried out in connection with the ecology, culture, feeding and distribution of indigenous and exotic species of fish suitable for angling in Transvaal waters — dams and rivers. Fish farming is being studied at Marble Hall.
   Thorough surveys of plant and animal life in rivers and dams are conducted and research is being done in connection with possible improvements. Diseases and parasites which may constitute a threat to the welfare of fish, are subjected to a thorough study.
   In the hydrobiological laboratory, at present housed in the National Water Research Institute, a study is being made of the pollution of water and the resistance of various species of fish to pollution.

(ii) Game and Game Birds:
   At Barberspan there is an institution for the study of water birds. Not only water birds, but various species of migratory birds are ringed and studied.
   Research on game is carried out mainly in the S. A. Lombard Nature Reserve, but all other nature reserves, particularly the Percy Fyfe, Hans Merensky and Loskop Dam Nature Reserves serve as outdoor laboratories.
   Apart from a study of the biology of each species of game, attention is also devoted to the methods of capture and transport of each species. Because the Section deals with game in reserves and on farms fences, diseases and internal and external parasites attacking game and farm animals, grazing and water supply as well as management of herds also receive attention.
To assist field staff in court cases extensive research is being done in connection with the identification of hair and biltong (serological method).

(iii) Vermin Control:
In the S.A. Lombard Nature Reserve research is being done on the biology of the black-backed jackal (Canis mesomelas), particularly with regard to its adaptation to the conditions prevailing on farms. In addition breeding experiments are being conducted with fox hounds with a view to improving the paws, stamina, voice and speed. The use of artificial means of control of vermin, such as traps, poison and drugs, are also receiving attention.

(iv) Plants:
In the Loskop Nature Reserve and at the Lydenburg Fisheries Institute a nursery has been equipped for the breeding of indigenous plants, especially shrubs and trees, for transplanting on the various nature reserves and for distribution to Provincial institutions. There is a herbarium at the S. A. Lombard Nature Reserve and an extensive plant survey of this reserve has almost been completed. The Nature Conservation Section is assisted in its research work by the following divisions of government departments: Botany, Entomology and Veterinary Services as well as the C.S.I.R., the Transvaal Museum and the Potchefstroom University.

c) Educational Publicity:
As soon as the newly-created posts of information officer and artist have been filled, there will be a full-time information programme. The annual bulletin is being used as a medium for the publication of popular treatises by the staff and other scientists on plants, animals and nature conservation in general. Various films which the Section had made are already in circulation. Colour slides are being used to illustrate talks.

3. Administration of Regulations and Provisions of the Ordinances:

A. Fish:

(a) Under the Fisheries Consolidation Ordinance, 1949, as amended by Ordinance No. 8 of 1953, the following services are undertaken at the Lydenburg Fisheries Institute, the Lowveld Fisheries Research Station and the Hartbeespoort Hatchery

(1) The culture and distribution of various species of fish for introduction into dams and rivers and to augment the fish population of such dams and rivers. The following species of fish are being bred:
   Brown trout (Salmo fario)
   Rainbow trout (Salmo irideus)
Large-mouth Bass (Huro salmoides)
Small-mouth Bass (Micropterus dolomieu)
Various Kurpers (Tilapia mossambica, T. melanopleura, T. sparmannii)
Vaal River Yellow Fish (Barbus holubi).

(2) Field surveys to determine the suitability of dams and streams with a
view to the introduction of species of fish.
(3) Research in connection with the pollution of water by factory
effluents.
(4) Taxonomic studies of indigenous species of fish.
(5) Ecology of Transvaal species of fish.
(6) Population studies with a view to intelligent management of angling
as a sport.

(b) With a view to controlling fish in dams and streams the following licences
and permits are issued:
(1) Angling licence for Trout (Angling season from 1 October—30 April).
(2) Angling licence (for fish other than trout). Angling is allowed through-
out the year.

B. Game and Game Birds:

(a) (1) To make available game and game birds to farmers in the Pro-
vince, the following species of game are being bred in the following
reserves:

S. A. Lombard Nature Reserve:
   Eland
   Springbok
   Black Wildebeest
   Blesbok
   Red hartebeest
   Gemsbok
   Impala
   Duiker
   Steenbok.

Percy Fyne Nature Reserve:
   Blesbok.

Hans Merensky Nature Reserve
   Blue Wildebeest
   Sable Antelope
   Tsessebe
   Impala
   Waterbuck
   Mountain Zebra.
Feathered game is available only to recognised reserves and zoological gardens, being supplied from the Barberspan Nature Reserve.

The following species are available:

- Spurwing geese
- Egyptian geese
- Yellowbill ducks
- Redbill teal.

(2) Before a farmer is allowed to introduce game on his farm an inspection of his farm is conducted by an officer of the Section with a view to advising him on the species of game which may be introduced and on the improvements required.

Farmers who already have game on their farms are not recognised as the owners of such game. After an investigation by an official of the Section the quota which he is entitled to hunt during the hunting season is determined by the Local Fauna and Flora Advisory Committee.

There are strict provisions as regards the hunting of game on farms by visiting hunters, largely to protect the land-owner against such persons.

Another important protective measure is the establishment of private nature reserves. Provided the fencing of a farmer’s property satisfies certain requirements and provided he displays a particular notice at each entrance, his farm may be declared a private nature reserve by the Administrator. In such a case the fines to which a poacher may become liable are so high that it serves as a deterrent.

Any person who is not an owner of land may obtain the shooting rights with the permission of the owner, but these shooting rights shall be duly registered at the office of the Administrator.

Game which may be hunted are classified as open and closed game. Open game are those which may be hunted in any area or during any period of time. Closed game are those which for some reason or other may not be hunted for a specified time. Closed game may be hunted by special permit only, provided such hunting is justified. One and the same species of game may be open game in the one district and closed game in the adjoining district, and vice versa.

In addition there is protected game which may be hunted in highly exceptional circumstances only, namely if it is essential for educational purposes and if it has become necessary in the interests of nature conservation.

(b) With a view to controlling game in the Province the following permits and licences are issued:

(1) Shooting licence to hunt open game, to persons who are not both the owners of the land and the holders of the shooting rights in respect of such land.
(2) Shooting permits to hunt closed and protected game, to holders of shooting rights and to persons authorised to hunt on behalf of the owner or holder of the shooting rights.

(3) Shooting permit to hunt closed or protected game, to persons who are not holders of shooting rights or who do not hunt on behalf of landowners.

(4) Game sale licences, to dealers in the fresh flesh of game.

(5) Permit to keep in captivity and transport game and certain wild animals.

(6) Permit for the transport of the flesh and carcasses of game.

C. Vermin:

(a) The Ordinance provides for the keeping, breeding, training and selling of hounds by the Administration.

In the S. A. Lombard Nature Reserve near Bloemhof various species of foxhounds, foxters and greyhounds are kept, bred and trained for this purpose. At Lydenburg a training depot has been established to promote the training process.

(b) Prospective huntsmen may be trained for registered clubs by the Section.

(c) If conducive to the training of the dog pack, practice hunts may be conducted for registered clubs.

D. Vegetation:

(a) The Native Flora Protection Ordinance of 1940, provides for the protection of certain plants.

(b) The Administrator or any person authorised by him, may issue a permit authorising the holder thereof to sell protected native flora. The species, the locality where and the period during which such protected flora may be sold, is specified in the permit.

(c) The Administrator or any person authorised by him, may issue a permit authorising any person to export or remove protected native flora from the Province.

4. Nature Reserves and Institutions:

A. Provincial Institutions and Breeding Stations:

1. Lowveld Fisheries Research Institute:

(a) Established in August, 1953.

(b) 53 morgen in extent.

(c) Near Marble Hall, Longitude 29° 21'E and Latitude 24° 59'S.

(d) A research institute where fish farming is being studied and experimental fish farming is being conducted on a model fish farm.

2. Lydenburg Fisheries Institute:

(a) Established during 1947.

(b) 50 morgen in extent.
(c) Three miles from Lydenburg, Longitude 30° 31'E and Latitude 25° 4'S.
(d) Hatchery for indigenous and exotic species of freshwater fish as well as a research institute for the study of all aspects of the management of game fishing.

3. Hartbeespoort Dam Hatchery:
(a) Established 1952.
(b) 8.6 acres.
(c) Near Brits, at Hartbeespoort Dam.
(d) Culture of fresh-water fish.

4. Lydenburg Foxhound sub-station:
(a) Established 1957.
(b) 3.8 morgen.
(c) Longitude 30° 27'E and Latitude 25° 7'S.
(d) Training centre for hounds.

B. Provincial Reserves:

1. Barberspan Nature Reserve:
(a) Proclaimed on 13 April, 1949, but enlarged on 8 September, 1954.
(b) Area: 8,940 acres.
(c) Nine miles east of Delareyville; Longitude 25° 24'E and Latitude 26° 21'S.
(d) Research is being done on water and migratory birds. Birds are captured and ringed on a large scale. The Reserve is a sanctuary for a large number of bird species, particularly:
   - Greater flamingo (Phoenicopterus ruber roseus)
   - Lesser flamingo (Phoeniconaias minor)
   - Pelican (Pelecanus onocrotalus)
   - Spurwing goose (Plectopterus gambensis)
   - Yellowbill duck (Anas undulata)
   - Redbill teal (Anas erythrorhyncha)
   - Egyptian goose (Alopochen aegyptiacus), as well as numerous other species of wild duck, geese, water birds and waders.

   On the banks the following are found grazing:
   - Springbok (Antidorcas marsupialis)
   - Steenbok (Rhaphicerus campestris) and
   - Duiker (Sylvicapra grimmia).

2. Berghoek Nature Reserve:
(a) Proclaimed on 8 September, 1954.
(b) 1,750 acres.
(c) Longitude 30° 12'E and Latitude 24° 25'S.
(d) The main species of game found in this reserve are:
Mountain Reedbuck (*Redunca fulvorufula*)
Oribi (*Ourebia ourebi*) and
Klipspringer (*Oreotragus oreotragus*).

3. **Hans Merensky Nature Reserve**:
   (a) Proclaimed on 8 September, 1954.
   (b) 10,230 acres.
   (c) Thirty miles east of Tzaneen; Latitude 23° 39'S and Longitude 30° 40'E.
   (d) A reserve where game species of the Lowveld are bred for distribution to farmers. The most important species are:
   - Sable antelope (*Hippotragus niger*)
   - Tsessebe (*Damaliscus lunatus*)
   - Eland (*Taurotragus oryx*)
   - Waterbuck (*Kobus ellipsiprymnus*)
   - Kudu (*Tragelaphus strepsiceros*)
   - Blue wildebeest (*Connochaetes taurinus*)
   - Burchell's zebra (*Equus burchelli*)

4. **Honnet Nature Reserve**:
   (a) Proclaimed on 18 January, 1939, changed on 8 September, 1954.
   (b) 4,690 acres.
   (c) At Tshipise (Louis Trichardt); Longitude 29° 55'E and Latitude 22° 48'S.
   (d) Pleasure resort, with large variety of indigenous trees, of which the following are the most important:
   - Boabab tree (*Adansonia digitata*)
   - Sausage tree (*Kigelia pinnata*)
   - Wild almond (*Berchemia discolor*)

5. **Langjan Nature Reserve**:
   (a) Proclaimed on 22 June, 1960.
   (b) 4,130 acres.
   (c) Near Louis Trichardt; Longitude 29° 13'E and Latitude 22° 50'S.
   (d) The only reserve in the Province where gemsbok (*Oryx gazella*) are still indigenous.

6. **Loskop Dam Nature Reserve**:
   (a) Proclaimed on 6 March, 1940; enlarged on 8 September, 1954.
   (b) 31,440 acres.
   (c) About 20 miles south of Groblersdal; Longitude 29° 20'E and Latitude 25° 27'S.
   (d) A pleasure resort at the Loskop Dam. The main species of game are:
Impala (Aepyceros melampus)  
Reedbuck (Redunca arundinum)  
Blue wildebeest (Connochaetes taurinus)  
Sable antelope (Hippotragus niger)  
Bushbuck (Tragelaphus scriptus)  
Blesbok (Damaliscus albitrans)  
Kudu (Tragelaphus strepsiceros)  
Burchell’s zebra (Equus burchelli)  
Hippopotamus (Hippopotamus amphibius)  
Ostrich (Struthio camelus)  
Crocodile (Crocodilus niloticus)

There is a large variety of trees but the most interesting are two species of Kaffir-bread tree (Encephalartos spp.).

7. N’jele Nature Reserve:
   (a) Proclaimed on 8 September, 1954.
   (b) 50 acres.
   (c) 15 Miles north-east of Tshipise (near Louis Trichardt).
   (d) The reserve is actually a small peninsula extending into the N’jele Dam.

8. Ohrigstad Dam Nature Reserve:
   (a) Proclaimed on 8 September, 1954.
   (b) Area: 6,320 acres.
   (c) 28 miles from Lydenburg on the Ohrigstad Road; Longitude 30° 37’E and Latitude 24° 43’S.
   (d) The reserve is situated on the banks of the Ohrigstad Dam and the following species of buck are found there:
      Oribi (Ourebia ourebi)
      Grey Rhebuck (Pelea capreolus)
      Mountain reedbuck (Redunca fulvorufa)
      Bushbuck (T. scriptus)
      Duiker (Sylvicapra grimmia)

9. Percy Fyfe Nature Reserve:
   (a) Proclaimed on 8 September, 1954.
   (b) 6,190 acres.
   (c) 22 Miles north of Potgietersrus; Longitude 29° 5’E and Latitude 24° 5’S.
   (d) Serves as breeding locality for blesbok (Damaliscus albitrans) for distribution to farmers.
      There are also nuclei of impala, kudu and black wildebeest, zebra and klipspringer.
10. S. A. Lombard Nature Reserve:
   (a) Proclaimed on 13 April, 1949 and enlarged on 5 May, 1953, and 25 August, 1953.
   (b) 9,330 acres.
   (c) Eleven miles west of Bloemhof; Longitude 25° 31'E and Latitude 29° 33'S.
   (d) Research work is being done in connection with game and vermin; there is also a well-equipped laboratory, herbarium and library. Hounds are also bred and trained for the control of vermin, particularly the Black-backed jackal (Canis mesomelas). The hounds trained are various types of foxhounds, greyhounds and foxterriers.
   In the last instance the reserve also serves as a breeding station for species of game for distribution to farmers, but trials in connection with the domestication of eland and the cross-breeding of buffalo with cattle and water buffalo are in progress.

   The main species of game are:
   Eland (Taurotragus oryx)
   Blesbuck (Damaliscus albifrons)
   Red hartebeest (Alcelaphus caama)
   Springbok (Antidorcas marsupialis)
   Black wildebeest (Connochaetes gnou)
   Duiker (Silvicapra grimmia)
   Steenbok (Raphicerus campestris)
   Impala (Aepyceros melampus)
   Buffalo (Syncerus caffer)

   It is open prairie but trees occur in groups; various thorn-trees (Acacia spp.) and Karee trees (Rhus spp.).

11. Vaal Dam Nature Reserve:
   (a) Proclaimed on 8 September, 1954.
   (b) 63,280 acres.
   (c) Situated on the Transvaal side of the Vaal Dam; Longitude 28° 22'E and Latitude 27° 5'S.
   (d) Angling resort and reserve for water birds.

12. Vertroosting Nature Reserve:
   (a) Proclaimed during 1957.
   (d) 60 acres.
   (c) Four miles from Sabie on the Nelspruit Road; Longitude 30° 50'E and Latitude 25° 7'S.
   (d) Established mainly for the protection of red-hot pokers (Kniphofia sp.).
C. Municipal Nature Reserves:

1. Austin Roberts Bird Sanctuary:
   (a) Established during 1958.
   (b) 28.9 acres.
   (c) Situated in Pretoria.
   (d) Water birds, ostriches, mahems, cranes and smaller species of buck.

2. Fountains Valley Nature Reserve:
   (a) Proclaimed on 1 February, 1885.
   (b) 17,122 acres.
   (c) Adjoins Pretoria; Longitude 25° 40'E and Latitude 25° 10'S.
   (d) Pleasure resort. Various indigenous species of trees are found of which white stinkwood (Celtis krusina) is the most important.

3. Frank Struben Nature Reserve:
   (a) Established on 11 February, 1959.
   (b) Area: 3.4 acres.
   (c) In Pretoria.
   (d) Protection of water birds.

4. Lydenburg Nature Reserve:
   (a) Proclaimed on 8th September, 1954.
   (b) Area: 18,666.3 acres.
   (c) Three miles east of Lydenburg; Longitude 30° 27'E and Latitude 25° 7'S.
   (d) The following species of game are found:
       - Impala (Aepyceros melampus)
       - Blesbok (Damaliscus albirostris)
       - Kudu (Tragelaphus strepsiceros)
       - Black wildebeest (Connochaetes gnou)
       - Blue wildebeest (Connochaetes taurinus)
       - Oribi (Ourebia ourebi)
       - Grey rhebuck (Pelea capreolus)
       - Chacma baboon (Papio ursinus)
       - Ostrich (Struthio camelus)

5. Melvillekoppies Nature Reserve:
   (a) Proclaimed in 1959.
   (b) Area: 103.34 acres.
   (c) Also known as “The Wilds” of Melville Johannesburg.
   (d) Native flora is protected, but the reserve has also been converted into a botanical garden.

6. Rondebult Nature Reserve:
   (a) Proclaimed on 17 August, 1955.
   (b) Area: 27.62 acres.
   (c) Situated in the Germiston Municipal Area.
(d) A sanctuary for wild birds such as ducks, geese, flamingoes, plovers, herons, etc.

7. Van Riebeeck Nature Reserve:
   (a) Proclaimed in 1937, but area reduced in size on 24 November, 1954.
   (b) Area: 11,153 acres.
   (c) Thirteen miles south-east of Pretoria; Longitude 28° 14'E and Latitude 26° 7'S.
   (d) The area was required for the city water scheme and was proclaimed a sanctuary. The following species of game are found:
       Blesbok (*Damaliscus albirostris*)
       Springbok (*Antidorcas marsupialis*)
       Steenbok (*Raphicerus campestris*)
       Duiker (*Sylvicapra grimmia*)
       Oribi (*Ourebia ourebi*).
       In addition, the black-backed jackal (*Canis mesomelas*), the aardwolf (*Proteles cristatus*) and a large variety of water birds are found.

8. Westdene Pan Nature Reserve:
   (a) Proclaimed on 8 February, 1950 and reproclaimed as game and native flora reserve on the 8th September, 1954.
   (b) Area: 109 acres.
   (c) Situated in the Benoni Municipal Area.
   (d) Protection of indigenous plants and the following species of game:
       Blesbok (*Damaliscus albirostris*)
       Springbok (*Antidorcas marsupialis*)
       Steenbok (*Raphicerus campestris*)
       Duiker (*Sylvicapra grimmia*).

9. Wonderboom Nature Reserve:
   (a) Established in 1949 and reproclaimed on 8 September, 1954.
   (b) Area: 1,161.1 acres.
   (c) Situated on the Great North Road where it leaves Pretoria.
   (d) Protection of the wonderboom (*Ficus pretoriae*).
       Blesbok (*Damaliscus albirostris*) have also been introduced.

D. Private Nature Reserves:
   In the Transvaal there are 206 private nature reserves, covering an area of 623,189 morgen.
TRANSVAAL

LEGENDE

A. Provinsiale Inrigtings en Teelstasies—Provincial Institutions and Breeding stations.
1. Laeveldse Visserynavoringstasie — Lowveld Fisheries Research Station
2. Lydenburgse Visseryinstituut — Lydenburg Fisheries Institute.
3. Hartbeespoort-Visserye — Hartbeespoort Dam Fisheries.
4. Lydenburgse Jakkalskonde-substasie — Lydenburg Foxhound Sub-Station.

B. Provinsiale Reservate — Provincial Reserves.

C. Munisipale Reservate — Municipal Reserves.
17. Austin Roberts-vöölsbekermingsoord — Austin Roberts Bird Sanctuary.
NATURE CONSERVATION IN SOUTH-WEST AFRICA

1. Legal Status:

The Division of Commerce, Industry and Labour is entrusted with matters relating to nature conservation in South-West Africa, and for this purpose a Nature Conservation Section has been established.

This Section is responsible for the enforcement of the following two ordinances and the regulations promulgated thereunder:

(1) The Game Preservation Ordinance, 1951 (Ordinance 11 of 1951), as amended.

(2) The Game Parks and Private Game Reserves Ordinance, 1958, (Ordinance 18 of 1958), as amended.

2. Organisation:

(a) A Parks Board was established under the provisions of Section 7 of Ordinance 18 of 1958, to advise the Administrator on matters relating to nature conservation. The Board's duties are the following:

(i) To advise the Administrator on matters relating to the control, management and maintenance of game and nature reserves;

(ii) to investigate and report on all matters relating to the protection of game referred to the Board by the Administrator;

(iii) to make such recommendations as it may deem fit to the Administrator concerning the protection of game, and to propose amendments to the game-protection laws of the area;

(iv) to meet in Windhoek at least once a year;

(v) in addition, to carry out such functions, powers and duties which the Administrator may by regulation prescribe for the Board.

The following bodies are represented in the Parks Board:

(i) The Legislative Council of South-West Africa.

(ii) The Executive Committee of South-West Africa.

(iii) The South African Police.

(iv) The Department of Agriculture.

(v) The Hunters' Association of South-West Africa.

These members are appointed by the Executive Committee.

An official of the Division of Commerce, Industry and Labour acts as secretary to this Board and the Chief Game Warden is present as Technical Adviser.
(b) The head office of the Nature Conservation Section is in Windhoek and the office staff consists of

(i) The Chief of the Division (Principal Administrative Officer)
(ii) Administrative Officer, and
(iii) Clerical Assistant, Grade II.

Control is exercised throughout the area by officials of the Nature Conservation Section, assisted by the South African Police, the Native Commissioners and 22 Honorary Game Wardens.

(c) Etosha Game Reserve:

The staff of this Game Reserve consists of the Chief Game Warden, 10 White staff members and 35 Non-white employees.

(d) Daan Viljoen Game Reserve:

Is controlled by one White official assisted by one Non-white labourer.

3. Research:

The Biological Division of the Section, consisting of a biologist and the rangers under the direction of the Chief Game Warden, is responsible for the research which at present consists mainly of ecological studies of plants and animals in the various game reserves.

The Division is assisted by the Division of Veterinary Services (Onderstepoort), the Transvaal Museum, various universities and the Division of Agriculture of South-West Africa, particularly in respect of identification of material collected.

4. Educational:

At the moment little is being done in the field of educational publicity but lectures are arranged and Land-Service Camps held, and in this way information is disseminated.

5.A. Reserves and Game Parks:

(1) Game Reserve I.

(a) Proclaimed in 1907.
(b) Area 1,909 sq. miles.
(c) Situated near Grootfontein.
(d) The following are the principal species of animals found in the Reserve:

Giraffe (Giraffa camelopardalis)
Gemsbok (Oryx gazella)
Blue wildebeest (Connochaetes taurinus).

The Vegetation is typical of the Kalahari Sandveld.

(2) Game Reserve II. (Including Etosha Game Reserve).

(a) Originally proclaimed in 1907, but enlarged in 1958.
(b) Area 37,025 square miles.
(c) Situated near Outjo in Tsumeb.
(d) The following are the principal animals found here:

Elephant \((\text{Loxodonta africana})\)
Black rhinoceros \((\text{Diceros bicornis})\)
Giraffe \((\text{G. camelopardalis})\)
Gemsbok \((\text{O. gazella})\)
Impala \((\text{Aepyceros melampus})\)
Kudu \((\text{Tragelaphus strepsiceros})\)
Springbok \((\text{Antidorcas marsupialis})\)
Red hartebeest \((\text{Alcelaphus caama})\).

The vegetation is typical of the Namib, Karstveld and Mopani veld.

(3) Game Reserve III.

(a) Proclaimed in 1907.
(b) Area 4,006 square miles.
(c) Situated near Walvis Bay.
(d) The following are the main animal species:
   Gemsbok \((\text{O. gazella})\)
   Springbok \((\text{A. marsupialis})\)
   Mountain zebra \((\text{Equus zebra})\).

The plants most characteristic of the area are Welwitschia and Narras.

Daan Viljoen Game Reserve:

(a) Will shortly be proclaimed.
(b) Area 1,203,4413 hectares.
(c) Situated near Windhoek.
(d) The species of game formerly indigenous to the Khomas Hochland are now again being introduced. The Reserve also serves as a holiday resort.

B. Private Game Reserves:

There are 25 private game reserves in the area, covering a total area of 162,528 hectares.
DEPARTMENT OF FORESTRY

The Department of Forestry should, according to the nature of its duties, be regarded as the principal protector of indigenous plants and trees in South Africa. Unfortunately, however, research is impossible at the moment, owing to a shortage of trained staff.

The Department is responsible for the enforcement of the provisions of the Forest Act (Act No. 13 of 1941), as amended by Act No. 45 of 1946 and Act No. 10 of 1948, and the regulations promulgated thereunder.

The main function of the Department is primarily the cultivation of useful timber and for this purpose there are 207 forestry plantations, comprising an area of 638,224.3 acres, in which softwood species (Pinus spp.) (542,863.9 acres), Eucalyptus species (75,655.9 acres) and other hardwood species such as poplar and wattle (19,704.5 acres) have been planted. Of this number, 153 are State plantations (540,786.3 acres) and 54 South African Native Trust plantations (97,438 acres).

The Department also exercises control over 243 indigenous forests comprising a total area of 652,430.2 acres, 191 (436,519.3 acres) of which are indigenous State forests and 52 (215,810.9 acres) are situated in Native Trust Areas.

Measures to protect both plant and animal life in these indigenous forests are strictly enforced, although fishing by permit in the rivers or along the coasts is allowed. In view of the danger of game being scared away or killed, vermin-destruction clubs are not allowed to pursue or hunt vermin in the forests, but should it become necessary, the Department itself undertakes control.

The Department has established specific nature reserves in several of the indigenous forests and plantations, where control measures are even more strictly enforced. All in all, there are 67 such reserves having a total morgenage of 15,798.44.

1. Algeria:
   (a) Reserved on 6.3.1936.
   (b) 165.36 morgen in extent.
   (c) Situated in the Cedar Mountains near Clanwilliam.
   (d) Clanwilliam cedars (Widdringtonia juniperoides), waboom and buchu.

2. Kathleen Murray:
   (a) Reserved in 1935.
   (b) 11.86 morgen in extent.
   (c) Situated in Nuweberg Forest Reserve near Caledon.
   (d) Vlier, ironwood, white pear, yellowwood, assegai.
3. Swartbos-Sasynkloof:
   (a) Reserved on 29.5.1936.
   (b) 435.76 morgen in extent.
   (c) Situated in the Jonkershoek Forest Reserve near Stellenbosch.
   (d) For the protection of a water-catchment area and proteas, heath and other indigenous plants.

4. Rooskraal:
   (a) Reserved on 21.1.1937.
   (b) 179.78 morgen in extent.
   (c) Situated near Grabouw.
   (d) For the protection of a water-catchment area and wild flowers, particularly proteas and heath.

5. Assegaaibos:
   (a) Reserved on 6.3.1936.
   (b) 65.34 morgen in extent.
   (c) Situated near Franschoek.
   (d) For the protection of such trees as vlier, ironwood, white pear, yellowwood and assegai as well as wild flowers.

6. & 7. Zevelfontein A and B:
   (a) Reserved on 6.3.1936.
   (b) A total of 439.40 morgen in extent.
   (c) Situated in Kluitjieskraal Forest Reserve near Tulbagh.
   (d) For the protection of wild flowers and other vegetation.

8. Marloth Wild-flower reserve:
   (a) Originally reserved in 1928, but enlarged in 1929 and 1935 (includes Koloniesbos and Duiwelsbos).
   (b) 221.87 morgen in extent.
   (c) Situated on the slope of the mountain near Swellendam.
   (d) For the protection of wild flowers, plants and trees such as ironwood, white pear, yellowwood, assegai, stinkwood and vlier.

9. Hout Bay:
   (a) Reserved in 1922.
   (b) 37.80 morgen in extent.
   (c) Situated in the Cecilia Forest Reserve on the slopes of Table Mountain near Wynberg.
   (d) For the protection of wild flowers and trees such as vlier, ironwood, white pear, yellowwood and assegai.

10. Lelievelibs:
   (a) Reserved in 1924.
   (b) 97.80 morgen in extent.
   (c) Situated in the Gouna Forest Reserve near Knysna.
(d) For the protection of virgin forest of which the following species of
trees are the most important: stinkwood, ironwood, vlier, yellow-
wood, assegai, white pear and kamassi.

11. Lelievlei:
(a) Reserved on 14.4.1930.
(b) 7.09 morgen in extent.
(c) Situated in the Gouna Forest Reserve near Knysna.
(d) For the protection of vegetation, especially the mountain lily (Valotta
purpurea) and the trees as for Lelievleibos.

12. Kombos:
(a) Reserved on 14.4.1930.
(b) 9.45 morgen in extent.
(c) Situated in the Gouna Forest Reserve near Knysna.
(d) For the protection of vegetation and trees as for Lelievleibos. The
huge Outeniqua yellowwood tree is found in this reserve.

13. Garden of Eden:
(a) Reserved on 30.7.1926.
(b) 4.25 morgen in extent.
(c) Situated in the Harkerville Forest Reserve near Knysna.
(d) For the conservation of natural scenery and for use as a picnic spot.
A feature of this reserve is the beautiful tree ferns (Hemitelia capen-
sis).

14. Koffiehoek:
(a) Reserved on 14.4.1930.
(b) 38.79 morgen in extent.
(c) Situated in the Harkerville Forest Reserve near Knysna.
(d) For the protection of indigenous trees as for Lelievleibos.

15. Witels (Knysna):
(a) Reserved on 14.4.1930.
(b) 5.20 morgen in extent.
(c) Situated in the Harkerville Forest Reserve near Knysna.
(d) For the protection of indigenous forest consisting almost exclusively
of white els.

16. Grooteiland-Wapad:
(a) Reserved on 14.4.1930.
(b) 8.03 morgen in extent.
(c) Situated in the Harkerville Forest Reserve near Knysna.
(d) For the protection of indigenous timber forest, where exploitation
has already taken place.
17. Fesanthoek:
   (a) Reserved on 14.4.1930.
   (b) 42.52 morgen in extent.
   (c) Situated in the Harkerville Forest Reserve near Knysna.
   (d) For the protection of indigenous timber forest particularly ironwood,
       Outeniqua yellowwood, kamassi and related species.

18. Petrus-Brandrivier:
   (a) Reserved on 14.4.1930.
   (b) 54.24 morgen in extent.
   (c) Situated in the Harkerville Forest Reserve near Knysna.
   (d) For the protection of an area of primeval forest comprising stink-
       wood, ironwood, vlier, yellowwood, assegai, white pear and ka-
       massi.

19. Spitskop:
   (a) Reserved on 14.4.1930.
   (b) 33.78 morgen in extent.
   (c) Situated in the Kransbos Reserve near Knysna.
   (d) For the protection of a mountain type of timber forest for scientific
       study.

20. Modderlyn:
   (a) Reserved on 14.4.1930.
   (b) 14.08 morgen in extent.
   (c) Situated in the Kransbos Forest Reserve near Knysna.
   (d) For scientific study and natural scenery. A humid witels-tree fern
       type of forest.

21. Big Tree:
   (a) Reserved on 14.4.1930.
   (b) 4.72 morgen in extent.
   (c) Situated in the Kransbos Forest Reserve near Knysna.
   (d) Picnic spot.

22. Watervalbos:
   (a) Reserved on 14.4.1930.
   (b) 42.81 morgen in extent.
   (c) Situated in the Kransbos Forest Reserve near Knysna.
   (d) For scientific study. Brushwood and high forest are found here; also
       a picturesque waterfall.

23. Streepbos:
   (a) Reserved on 14.4.1930.
   (b) 32.13 morgen in extent.
   (c) Situated in the Goudveld Forest Reserve near Knysna.
   (d) For the conservation of natural scenery and ferns.
24. **Forest Creek**:
   (a) Reserved on 14.4.1930.
   (b) 33.07 morgen in extent.
   (c) Situated in the Goudveld Forest Reserve near Knysna.
   (d) For the protection of indigenous forest trees such as stinkwood, ironwood, vlier, yellowwood, assegai, white pear and kamassii.

25. **Skelmkloof (Die Eiland Bos)**:
   (a) Reserved on 16.6.1930.
   (b) 15.31 morgen in extent.
   (c) Situated in the Goudveld Forest Reserve near Knysna.
   (d) For the protection of unexploited humid type of forest.

26. **Homtini**:
   (a) Reserved on 16.6.1930.
   (b) 48.19 morgen in extent.
   (c) Situated in the Goudveld Forest Reserve near Knysna.
   (d) For the protection of indigenous timber forests, particularly a number of large Outeniqua yellowwood trees.

27. **Kleinbos**:
   (a) Reserved on 14.4.1930.
   (b) 48.24 morgen in extent.
   (c) Situated in the Buffelsnek Forest Reserve near Knysna.
   (d) For scientific study.
       A large number of tree species are found here.

28. **Rooiwal**:
   (a) Reserved on 14.4.1930.
   (b) 12.14 morgen in extent.
   (c) Situated in the Karatara Forest Reserve near Knysna.
   (d) For the protection of indigenous forest, particularly yellowwood and assegai.

29. **Keurboomsrivier**:
   (a) Reserved on 14.4.1930.
   (b) 2,330.22 morgen in extent.
   (c) Situated in the Keurboomsrivier Forest Reserve near Knysna.
   (d) For the conservation of natural scenery, indigenous bush and veld.
       Brushwood and high forest are found here.

30. **Grootrivier**:
   (a) Reserved on 10.9.1926.
   (b) 480.74 morgen in extent.
   (c) Situated in the Bloukrans Forest Reserve near Knysna.
   (d) For the conservation of indigenous forest; High forest, brushwood and natural scrub vegetation are found here.
31. **Ratelbos**:
   (a) Reserved on 21.7.1928.
   (b) 14.74 morgen in extent.
   (c) Situated in the Lottering Forest Reserve near Humansdorp.
   (d) For the protection of a small area of virgin forest of high quality. The best-known tree species are stinkwood, ironwood, vlier, yellowwood, assegai, white pear and kamassi.

32. **Cold Stream**:
   (a) Reserved on 14.4.1930.
   (b) 18.90 morgen in extent.
   (c) Situated in the Lottering Forest Reserve near Humansdorp.
   (d) For the protection of a few large yellowwood trees.

33. **Witels (Humansdorp)**:
   (a) Reserved on 21.7.1928.
   (b) 40.16 morgen extent.
   (c) Situated in the Witelsbos Forest Reserve near Humansdorp.
   (d) For the protection of indigenous forest, particularly beautiful large witels and stinkwood trees.

34. **Klein-Witelsbos**:
   (a) Reserved on 14.4.1930.
   (b) 12.10 morgen in extent.
   (c) Situated in the Blueliliesbush Forest Reserve near Humansdorp.
   (d) For the protection of indigenous forest as in the case of Ratelbos.

35. **Blueliliesbush**:
   (a) Reserved on 14.4.1930.
   (b) 10.35 morgen in extent.
   (c) Situated in the Blueliliesbush Forest Reserve near Humansdorp.
   (d) For the protection of indigenous forest as for Ratelbos.

36. **Die Plaat**:
   (a) Reserved in 1929.
   (b) 22.68 morgen in extent.
   (c) Situated in the Storm Rivier Forest Reserve near Humansdorp.
   (d) For the protection of the beautiful Outeniqua yellowwood trees.

37. **Groenkop**:
   (a) Reserved on 14.4.1930.
   (b) 50.32 morgen in extent.
   (c) Situated in the Saasveld Forest Reserve near George.
   (d) For the conservation of natural scenery and a few large yellowwood trees.
38. **Woodville**:  
(a) Reserved on 14.4.1930.  
(b) 50.70 morgen in extent.  
(c) Situated in the Woodville Forest Reserve near George.  
(d) For the protection of indigenous forest consisting of stinkwood, ironwood, vlier, yellowwood, assegai, white pear and kamassi.

39. **Jonkersberg**:  
(a) Reserved on 18.9.1931.  
(b) 11.34 morgen in extent.  
(c) Situated in the Jonkersberg Forest Reserve near George.  
(d) For the protection of indigenous forest (as at Woodville).

40. **Geelhoutboomberg**:  
(a) Reserved on 18.9.1931.  
(b) 17.39 morgen in extent.  
(c) Situated in the Geelhoutboomberg Forest Reserve near George.  
(d) For the protection of indigenous tree species in kloof as well as shrubs and wild flowers in adjoining veld.  
The Knysna lily (*Valotia purpurea*) is also found here.

41. **Pirie**:  
(a) Reserved on 8.5.1934.  
(b) 91.19 morgen in extent.  
(c) Situated in the Evelyn Valley Forest Reserve near King William's Town.  
(d) For the conservation of natural scenery and for scientific study of the vegetation. High forest consisting of yellowwood, stinkwood, assegai, ironwood, sneezewood, lemonwood, red pear and hard pear.

42. **Wolf Ridge**:  
(a) Reserved on 22.2.1938.  
(b) 2.3 morgen in extent.  
(c) Situated in the Schwarzwald Forest Reserve near King William's Town.  
(d) For the protection of indigenous forest comprising yellowwood, ironwood, assegai, lemonwood, red pear, white pear, and sneezewood.

43. **Nyokana**:  
(a) Reserved on 21.8.1939.  
(b) 34.02 morgen in extent.  
(c) Situated in the Cata Forest Reserve near King William's Town.  
(d) For the protection of indigenous forest consisting of yellowwood, ironwood, red and white pear, assegai, red berry and Camdeboo stinkwood.
44. Loerie:
(a) Reserved on 22.2.1938.
(b) 11.25 morgen in extent.
(c) Situated in the Loerie Forest Reserve near Humansdorp.
(d) For the protection of indigenous forest comprising yellowwood, stinkwood, ironwood, assegai, Cape ash and sneezewood.

45, 46, 47. Fort Grey (Consists of three parts):
(a) Reserved on 11.4.1951 (first portion) and 13.3.1956 (2nd and 3rd portions).
(b) Area of some 230,248 and 171 morgen respectively.
(c) Situated along the East London Coast near East London.
(d) For the protection of indigenous forest comprising milkwood, sneezewood, white pear and ironwood.

48. Water's Meeting:
(a) Reserved on 1.5.1950.
(b) 1,151 morgen in extent.
(c) Situated in the Alexandria Forest Reserve near Bathurst.
(d) For the protection of plants and animals. Forest comprises yellowwood, Cape ash, milkwood, ironwood, kiaat, stinkwood and sneezewood.

49. Auckland:
(a) Reserved on 28.10.1938.
(b) 150 morgen in extent.
(c) Situated in the Hogsback Forest Reserve near Victoria East.
(d) For the protection of indigenous forest comprising yellowwood, black ironwood, red pear, Camdeboo stinkwood, assegai, wild lemon and Cape beech.

50. Caesar Henkel:
(a) Reserved on 17.3.1936.
(b) 11.34 morgen in extent.
(c) Situated in the Kambi Forest Reserve near Tsolo (Umtata area).
(d) For the protection of indigenous forest comprising yellowwood, black stinkwood, black ironwood, interspersed with exotic species. Of historical and scientific interest.

51. Tonti:
(a) Reserved on 27.5.1930.
(b) 33.07 morgen in extent.
(c) Situated in the Tonti Forest Reserve near Flagstaff (Umtata area).
(d) For the protection of indigenous forest comprising yellowwood, sneezewood, Cape beech and assegai.