



SOUTH WEST AFRICA ADMINISTRATION

WHITE PAPER

on the

ACTIVITIES OF THE DIFFERENT BRANCHES

for

1978

Introduction

The 319 510 tourists who visited the administration 's game reserves and resorts during the year made 1978 a record year. The highest previous figure was in 1975, namely 314 218 tourists. In comparison with 1977 the number of tourists from Southwest Africa decreased by 2 208, while the number of tourists from the Republic and overseas increased by 25 389 and 9 639 respectively.

Day visitors decreased by 13 966, whereas overnight visitors increased by 46 776.

The following highlights and problems characterised 1977.

- One of the largest game reserves to come into being in recent decades was announced in May 1978. At present the total area of the park is 2 308 432 ha, which is 81 422 ha larger than the Etosha National Park.
- The gross income from game reserves and resorts increased from R2 208 153 in 1977 to R2 667 097 in 1978.
- The Freshwater Fish Institute at Hardap was completed early in 1978 and was officially commissioned in April. The first 2 000 large-mouthed black bass bred were made available to farmers.
- The contribution to the gross interior product in Southwest Africa of the game industry on white farming areas exceeded R8. 5 million, an increase of nearly R3. 5 million when compared to 1977. Of this the income from trophy hunting represents more than R3 million and night culling of game R1, 7 million. There is reason to believe that a considerable number of trophies are hunted illegally, and steps are envisaged to put an end to these offences.
- More intensive control over game poaching led to the prosecution of 248 persons as compared to the 136 of the previous year.

Fines amounting to R46 795, 00 were levied and goods to the value of R19 698, 00 were confiscated by the state, while 23 cases are still pending. The large quantity of ivory and hides of protected game, which was involved, is an alarming aspect.

- The occupancy figure of hotels, guest farms and other private accommodation establishments showed an average increase of 3, 9% in bed occupancy and 5, 1% in room occupancy.
- The kudu mortality on farming areas increased during the course of the year, partly as the result of a serious rabies epidemic and partly as the result of an apparent over-population resulting from the good rains of the past few years. Various research projects in this respect are in progress at present.
- Mile 108, the last link in the chain of overnight camping sites on the coast between Swakopmund and the Ugab River was commissioned.
- The elephant problems in the north of the Territory have increased and initial research indicates that the availability of water plays a role in the intensity of the problem.
- Research has brought to light that there is far less competition between rock rabbits and karakul sheep than had originally been suspected. The rock rabbit feeds mainly on trees and shrubs in the cliffs whereas a karakul sheep feeds mainly on grass and dwarf shrubs.

- A breeding herd of sable antelope was transferred from Etosha to the Waterberg Plateau Park and indications are that they are adapting well in the new environment. Four ships were wrecked on the Skeleton Coast, fortunately with loss of life. Officials of the Division were closely involved in the rescue operations.
- The repairs to the swimming-pool at the Gross Barmen Hot Springs which continued for several months had a negative influence on the number of visitors to the resort. The first stage of the new road is already under construction.
- After a thorough investigation of alternative sites, the Administration had no other choice than to the Department of Posts and Tele- Communications erect two microwavetowers in the Namib Naukluft Park. To limit environmental defacing to a minimum the towers have been erected as far out of sight from the tourist roads as possible.

TOURISM STATISTICS

REST CAMP	NUMBER OF VISITORS	R.S.A.	S.W.A.	OVERSEAS	DAY VISITORS	OVERNIGHT VISITORS	VEHICLES	INCOME 1977	INCOME 1978	INCREASE OR DECREASE	PERCENTAGE
AI-AIS	12809	14500	2584	725	1389	16420	4839	R 254 328,00	R 275 367,00	+ R 21 039,00	+ 8%
FISH RIVER CANYON	21400	10700	642	10058	20758	642	-	R 369,00	R 1 033,00	+ 664,00	+ 178%
HARDAP	38593	16498	20806	1289	12068	26525	10435	R 270 146,00	R 306 688,00	+ R 36 542,00	+ 14%
LUDERITZ	5976	2534	3157	285	-	5976	1822	R 40 852,00	R 89 893,00	+ R 49 041,00	+ 120%
MAUKLUFT	888	66	797	25	72	816	150	R 3 244,00	R 4 673,00	+ R 1 429,00	+ 44%
DIAN VILJOEN	55025	9644	44293	1088	44476	10549	14345	R 127 915,00	R 136 807,00	+ R 8 892,00	+ 7%
VON BACH	11930	625	10805	500	11010	920	3370	R 4 623,00	R 5 595,00	+ R 972,00	+ 21%
GROSS BARRIEN	20334	1125	19162	47	5357	14977	5697	R 156 795,00	R 217 482,00	+ R 60 687,00	+ 39%
OKAKUELO	27394	13153	8545	5696	4059	23335	6170	R 397 419,00	R 464 969,00	+ R 67 550,00	+ 17%
HALALI	19019	8975	6106	3938	-	19019	-	R 278 682,00	R 338 142,00	+ R 1127 063,00	+ 13%
MANUTONI	26778	11098	11850	3830	8867	17911	6415	R 280 580,00	R 280 633,00	+ R 53,00	+ 2%
SWAKOPMUND: REST HOUSES	26246	8872	16599	775	-	26246	6965	R 235 594,00	R 256 149,00	+ R 20 555,00	+ 9%
SWAKOPMUND: SWIMMING-POOL	-	-	-	-	-	-	-	-	-	-	-
MILE 4: CARAVAN PARK	7927	2690	5026	211	-	7927	2061	R 17 582,00	R 18 589,00	+ R 1 007,00	+ 6%
MILE 14: CARAVAN PARK	2115	308	1805	2	-	2115	425	R 49 718,00	R 45 607,00	- R 4 111,00	- 8%
JAKKALSPUTZ: CARAVAN PARK	3393	1060	2331	2	-	3393	742	R 5 249,00	R 5 299,00	+ R 51,00	+ 1%
MILE 72: CARAVAN PARK	3988	756	3219	13	-	3988	679	R 10 282,00	R 10 564,00	+ R 282,00	+ 3%
HEINTES BAY	3254	1301	1854	99	-	3254	895	R 19 711,00	R 32 003,00	+ R 11 890,00	+ 59%
CAPE CROSS	9374	2527	5903	944	9374	1977	428	R 3 624,00	R 4 290,00	+ R 666,00	+ 18%
TORRA BAY	1834	134	1673	27	-	1834	428	R 12 804,00	R 21 980,00	+ R 9 176,00	+ 72%
TERRACE BAY	1435	346	1019	70	23	1412	417	R 7 204,00	R 115 208,00	+ R 108 004,00	+ 1499%
SANDVYS	5321	1162	3790	369	5321	1492	417	R 5 541,00	R 2 847,00	- R 2 694,00	- 49%
NAMIB DESERT PARK	8985	3905	3890	1200	-	8985	1882	R 5 216,00	R 5 216,00	- R 345,00	- 6%
MILE 108: CARAVAN PARK	492	55	437	-	492	87	-	R 5 561,00	R 3 018,00	- R 2 543,00	- 45%
TOTAL	319510	112034	176293	31193	128740	190770	71273	R2 208 153,00	R2 667 097,00	+ R458 944,00	+ 21%

TOUR BUSES = 1062 CARAVANS = 6597 PANTS = 767 TENTS = 4815

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Game Reserves and resorts

Etosha national park

The rainfall was exceptionally good in the east of the park. Although the western part also had good rains the showers fell at long intervals which resulted in poor grazing. As a result of the exceptionally heavy rains in the east and the north-east of the Territory the pan was filled for the first time in 25 years.

By the way of comparison, the 1977 and 1978 rainfall figures are given below:

	1977	1978
Okaukuejo	601, 4 mm	476, 0 mm
Otjovasandu	419, 6 mm	558, 0 mm
Halali	422, 0 mm	496, 6 mm
Namutoni	511, 0 mm	693, 1 mm

A second fire from Owambo threatened the western part of the park over a distance front of about 85 km. The staff arrested the fire by means of firebreaks.

With the object of satisfying the water requirements of game, making provision for the increasing number of elephants and to stop the migration of game, a long-term water plan for Etosha was devised and implemented.

At the cost of considerable time and effort, the park employees repaired a vast number of large elephant breaks – 207 in the Namutoni, 585 in the Otjovasandu and 820 in the Okaukuejo districts.

General Phillip of the U N and his party attended a game catching operation at Otjovasandu. The Administrator- General and his party visited the park for five days. Prof Fritz Walter, a world-renowned behavioural expert did research on gemsbok behaviour.

70 persons who contravened the park regulations were prosecuted and paid a total of R1 748, 00 in fines. The majority of these were speeding fines. Two cases of illegal hunting occurred in the park.

Eight black rhinos were transferred from Khoabendus to Namutoni. These animals have been spotted regularly by visitors and according to their accounts have adapted well.

The research project on the population dynamics, behaviour, and ecology of the blue wildebeest in Etosha, to determine why the numbers of this species have decreased, is reaching completion. By December 1978 all fieldwork and collecting of data had been completed.

Results already available show, for instance, that the wildebeest population does not migrate as it is used to that 81% of what these animals eat is grass blades, that they prefer fresh rainwater to bore-hole water and that most deaths occur in the five-to-seven-year age-group.

A project on the population dynamics, behaviour, and ecology of elephant in the Etosha National Park is progressing well. Aspects of the project which received attention in 1978 include observations of the use of shade by elephants (the availability of shade influences the distribution of elephants), circulars sent to farmers to establish the earlier distribution of elephant and the development of a plant survey method to determine the influence of elephants on the tree stratum. Figures Technical Services indicate that there is a correlation between the number of boundary fence breaks, rainfall, and the availability of drinking water.

The monitoring of game diseases and mortalities in Etosha was continued. An investigation of wildebeest diseases was carried out. The project on the evaluation of the effect of drugs on Cape hartebeest and black-faced impala was continued. A technique for catching dikdikkies with drugs was developed. Two other projects received part-time attention in Etosha, namely occurrence lists and the distribution of smaller mammals and reptiles of Etosha. The list of mammals was completed and will be published in 1979.

A total of 54 172 people visited Etosha during 1978. Of these, 9 526 came from overseas, 24 251 from the Republic of SA and 20 395 from Southwest. This represents an increase of 18% as compared to the previous year. 27 394 people visited Okaukuejo, 19 019 visited Halali, and 26 778 visited Namutoni.

The Okaukuejo rest camp was completely renovated, and 15 mobile living units were purchased to meet the demand for tourist accommodation at Namutoni.

Hardap Recreation Resort

Except for grazing for kudu which suffer during the dry months as the result of insufficient tree and bush grazing, the grazing was satisfactory in general. The position should improve as 332 big game animals were captured and sold to farmers in the year.

The rainfall was as follows:

	1977	1978
Springbokvlakte	214 mm	131, 0 mm
Rooiputs	323 mm	100, 0 mm

Eight dogs, four baboons and 33 domestic cats which had become wild were destroyed.

Eighteen people who contravened park regulations were prosecuted. They paid R205, 00 in fines.

The fieldwork for the research project to determine what kudu eat was completed in February.

Virtually all construction work at the fish hatchery was completed: Eight Daphnia breeding dams, seven packing sheds and shelters, and the entrance gate and stone walls were completed, and the area was landscaped. In April the Institute was officially commissioned. 2 000 large-mouthed black bass were bred and made available to farmers. The ichthyologist of the Institute did fish population surveys at the von Bach, Goreangab and Friedenau Dams, the Daan Viljoen Game Reserve and Gross-Barmen. Fish for breeding purposes were transferred from the von Bach Dam to the Hardap Dam. The project to supply fish to the Division 's restaurants was continued. 2 500 kg of fish, with a value of R1 675, 00, was delivered.

There was an increase in the number of tourists that visited the resort – 38 593 as compared to 33 234 in 1977. The income for the year amounted to R306 688, 00, which is an increase of 14% compared to 1977.

The new camping has facilities for 300 people was commissioned. The area is situated under large camel-thorn trees below the dam wall next to the Fish River.

50 km of new tourist roads were built and will be opened to the public in the course of 1979.

Day and overnight camping facilities were created at the boating bay. The completion of six new houses for employees resulted in additional accommodation becoming available to visitors.

Daan Viljoen Game Reserve

The Park had 400, 8 mm of rain. The shower was too soft to fill the dams with the result that a lot of the kurpers had to be transferred from the Augeigas Dam to the Friedenau Dam.

Grazing is very poor. Because of the many difficulties of catching game at Daan Viljoen, the necessary number of animals could not be caught.

Considerably difficulty was experienced in the maintaining the park 's boundaries. As many as 100 holes which had been dug under the fences by warthogs were closed.

Eight people who had contravened the park regulations were prosecuted. The fines totalled R415, 00, and the majority were for speeding.

Over the past year there was a considerable decrease in the number of visitors. The figure of 55 025 as compared to 62 985 for 1977 denotes a decrease of 12, 6%.

The dam which is one of the attractions of the resort finally dried up completely in the year, also resulting in a deterioration of the lawns and gardens.

Waterberg Plateau Park

According to the Division 's botanist, the grazing on the plateau is still under-utilised and could accommodate quite a number of additional leaf eaters. The rainfall was 745 mm which is considerably higher than average.

24 sable antelope were transferred from Otjovasandu to the Waterberg while 122 elands were captured and sold.

Nine drinking places were built and a further 12 km of pipeline was laid. Five corrugated iron reservoirs were constructed to provide water for the game.

The research on the flora of the park was divided into three separate projects, namely

- (a) The plant ecology of the park.
- (b) The monitoring of changes in the components of plant-life and the utilisation of grazing, and
- (c) The effects of fires.

The data which became available in the year applied in the management plan of the park.

Skeleton Coast Park

As would be expected in this park, the rainfall was minimal and the grazing poor.

As the western parts of Kaokoland and Damaraland haven't had good rains for several years, the game from these areas concentrated in the river courses of the park in considerable numbers.

Four boats were wrecked on the coast and as far as is known six people numbers.

The boats were:

Gunfi	-	28 March
Orca	-	4 April
Kayo Maru L	-	25 May
Gulsea Condor	-	July

Terrace Bay

Terrace Bay is becoming increasingly popular and was fully booked during long weekends and school holidays. For the rest of the year the occupancy was 40% and over.

A start was made in clearing up the mining rubble. The road between the mouth of the Ugab and Terrace Bay was rebuilt during the year.

Of the 1 412 visitors who spent who spent the night at Terrace Bay, 28% came from the Republic, 66% from Southwest Africa and 6% from overseas.

Torra Bay

1 834 people camped at Torra Bay, in comparison to 1 093 the previous year.

At Springbokfontein on the Khorixas Road from the interior an entrance gate was established to facilitate control of traffic to the park.

Toscanini

The mine buildings at Toscanini are systematically being demolished and re-erected at Möwe Bay and the Ugab river as housing for staff, packing sheds, garages, etc. It will still take some time to tidy up the area completely.

Wildernis area

The concessionaire for the Wildernis area of the park (between the Hoanib and Kunene Rivers) took 264 tourists on sightseeing tours of this area during the year. Nearly all of these tourists came from overseas.

Von Bach Recreation Resort

The rainfall was reasonable and the grazing for grass feeders was good. The bushes, however, have not yielded sufficient nutrition for kudu and these animals will have to be decreased in 1979.

Seven dogs were shot in the vicinity of the dam because they mutilated kudu.

11 930 people visited the resort in the year. There were 682 boats on the dam in comparison to 402 the previous year. During December 1978, twenty-day camping sites were opened to the public. An open-sea raft, the Apelila, was purchased and transported to the dam. Once the necessary changes and adjustments have been affected, it will be anchored near the day camping area for the benefit of boat owners and visitors. There was a considerable increase in the number of anglers and aquatic sports enthusiasts at the dam.

Gross-Barmen Hot Springs

The outdoor swimming-pool was closed to the public for the latter half of the year because the tiles had to be replaced. This undoubtedly had a detrimental effect on the number of visitors to the resort. Day visitors decreased by 67%, while overnight visitors increased by 11%. The income nevertheless rose by 14%.

A lot of effort was put into the erection of retaining walls and landscaping. The first phase of the new road to the resort is under construction at present.

Namib-Naukluft Park

One of the largest game reserves to come into being in Africa in recent decades was announced in the second half of the year. The reserve is the result of merging the existing Namib Desert Park, the Naukluft Mountain Zebra Park, unoccupied state land and a part of Diamond Area No. 2, will be known as the Namib-Naukluft Park. Its total area is 2 308 432 ha, which is 81 422 ha larger than the Etosha National Park.

Naukluft

The rainfall was 350 mm, as compared to 220 mm in 1977. The grazing is good. Two veld-fires, both caused by lightning, destroyed approximately 2 600 ha of good grazing.

Nine baboons which had created problems at the camping area had to be destroyed.

Two persons were charged for contravening the park regulations and their fines came to R50, 00. Officials at Naukluft caught seven poachers in the district. Two of these were fined to the amount of R1 050, 00, while the other five are still awaiting trial.

888 people visited Naukluft during the year as compared to 791 in the previous year.

Namib Desert Section

In some areas the rainfall was above normal and the grazing for the animals was sufficient.

Three cases of illegal hunting, in which six persons were involved, were laid before the court and a total of R1 510, 00 was levied in fines.

The mining activities at Langer Heinrich have progressed. To limit the detrimental effects of the project on the environment to the minimum, the co-operation of the mine management was obtained. The Department of Water Affairs are at present constructing a water pipeline between Langer Heinrich and Rossing. Two micro-wave towers are being erected in the park.

Although the total number of people who visited the Namib Desert section of the park decreased over the previous year by 1 566, there was an increase in the number of visitors from the Republic and overseas. The number of visitors from overseas increased by 465 (63%) and from the Republic by 2 228 (138%).

The Namib Research Institute has, as in the past, again attracted a considerable number of scientists from all over the world.

Sandvis

There was an increase of 17% in the number of visitors. The pollution here, as is the case elsewhere on the coast, gives cause for concern.

Sossus vlei

During the six months of the 1977 season, 981 tourists visited the vlei as compared to the 1 406 tourists during 1978.

Fish River Canyon and Ai-Ais Hot Springs

During 1978, 17 809 tourists visited Ai-Ais. Of these, 14 500 came from the Republic, 2 584 from Southwest Africa and 725 from overseas. This represents an increase of 5% over the previous year.

Nine road accidents, of which two were fatal, occurred on the Ai-Ais. Grunau road. Three people were killed. The roads Division is at Present investigating possibilities of eliminating danger points.

A boy was drowned in the river to help his father who was in difficulty.

The mineral baths remain ever popular and were used by 10 692 people. The demand for family baths remains high.

More or less 21 400 tourists visited the Fish River Canyon. The 118 groups which hiked through the canyon consisted of approximately 1 000 people.

A lot of problems are caused by vandals and polluters, especially at the main outlook point where basic camping facilities are available. At present the matter is being investigated to find a way to control the area more efficiently.

National West Coast Tourist Recreation Area

The eastern boundary between the tourist recreation area and Damaraland has been defined with beacons from Rossing to the Ugab River, for 228 km.

Swakopmund

The rest houses are more popular than ever and there is an increase of 18% in the number of visitors as compared to 1977. The 2- and 4-bed rest houses have been renovated and equipped with refrigerators. The average occupancy during the year was 47, 9%, while it was 100% during school holidays and long weekends. The swimming pool was visited by 56 410 people and there was an increase in swimming tuition. In contrast with the previous year, the sauna facilities were well-patronised.

Caravan Park Mile 4

Mile 4 had a quiet year and a further decrease in the number of visitors. A garden was laid out in front of the visitors. A garden was laid out in front of the office building and another 500 palm trees were planted in the camp.

Mile 14

Despite the good catches at Mile 14 nowadays, the percentage of visitors to the camp decreased by 22% in comparison with the previous year.

Jakkalsputz

There was an increase of 19% in the number of people who visited the camp, although the income increased only by 3%. This is the only overnight camping spot which does not sell fuel and liquor, the reason being that Jakkalsputz is very near to Henties Bay.

Mile 72

The number of visitors increase by 18% as compared to 1977, and the income rose by 59%. Angling prospects here have improved considerably as compared to the past three years, and good catches were made.

Cape Cross

A total of 9 374 tourists visited the seal reserve. 2 527 of these came from the Republic and 944 from overseas. This is an overall increase of 16, 8%.

The unusually high occurrence of east wind this year meant that large quantities of sand had to be removed from the visitor's section. The stone wall which separates visitors from the seals was damaged by a storm.

Mile 108

This camp was commissioned during December and at this stage it is still too early to come to any conclusion. 492 people made use of the facilities during December.

Mile 108 is the last link in the chain of overnight camping sites on the coast and since there are now more than sufficient facilities for campers, free camping will now be stopped.

Henties Bay

The number of visitors to Henties Bay increased by 44%, which can probably be ascribed to the fact that the camp is situated very centrally in terms of good angling spots along the coast.

Lüderitz

The 5 976 tourists who visited Lüderitz during the year represent an increase of 1 129 (23%) over the previous year.

The tarred road from Aus to Lüderitz was completed during March 1978 and was probably responsible for the increase in tourists.

The Strand Café in the rest camp was completely renovated by the Works Division. Meals to the value of R32 058, 55 were served over the year.

Considerable improvements to the facilities at the rest camp at Ostende were completed and additional ablution blocks were commissioned.

The old post-office was restored and is now being used as a tourist office.

Tourist office

The tourist office was transferred to a more central point in town. This and the change-over to a computerised booking system caused considerable re-organisation and a number of headaches.

A total of 37 563 applications were dealt with. Of these, 29 195 resulted in reservations which resulted in 319 510 tourists visiting the various resorts. Information was posted to tourists in the form of 1 450 brochures. An amount of R576 144, 72 was received for the booked accommodation.

Nature Conservation

Otjiwarongo Regional Office

\$3 cases, of which fifteen are still pending, were investigated. &2 hunters were involved. The 48 people who were found guilty were collectively fined to the amount of R19 805 and goods to the value of R1 894 were confiscated. The police investigated an additional seventeen cases of illegal hunting, and 24 people were charged. Fines amounting to R7 525 were levied and goods to the value of R460 were confiscated. Thirteen people were warned as a result of minor contraventions. These cases involved the following animals:

9 kudu	14 eland	4 giraffe
2 elephants	1 gemsbuck	3 warthog
4 mountain zebra	1 springbuck	2 duiker
3 steenbok	1 blesbok	

One Coyote getter course, which was attended by thirteen farmers, was presented. Nine lectures, which were attended by 387 people, were given. 252 farm inspections were done. 42 hunting farms were inspected for registration purposes, while three professional hunters and 26 hunting guides were tested.

Windhoek Regional Office

Officials of the Division and the S A P instituted 61 court cases against poachers and traders. 97 people were involved. The collective fines totalled R15 360, 00 and the following items were confiscated:

32 elephant tusks	4 rhinoceros's horns
9 elephant tails	107 zebra hides
9 ostrich skins	16 springbok skins

The estimated value of these items is R16 428, 00.

Three cases, in which 25 persons are involved, are still pending. The illegal hunting of game and possession of hides, ostrich skins, ivory and rhinoceros's horns are involved.

Four lectures, which were attended by 169 people, were given. A course concerning the use of 'jackal cannons' was presented and was attended by fourteen farmers who all passed the course.

67 farm inspections were carried out. 58 hunting guides and nine professional hunters were tested this year and 64 hunting farms were inspected and registered. Nine hunting guides, nine hunting farms and seven professional hunters must still receive attention.

Keetmanshoop

Eight cases, which involved seventeen people, were investigated. Four of these cases must still be tried and in the four which had been dealt with fines to the amount of R3 050, 00 were levied. The following items were confiscated; Three guns, two telescopes, one hunting knife and several cartridges. The estimated value is R907, 00. 21 springbok, six ostrich, six gemsbok and three kudu were involved in the hunting.

Three courses in the use of Coyote getters were presented and attended by 38 farmers.

Two lectures and four films show with talks were presented and attended by 241 people. 95 farm inspections were carried out. The hunting guides are still waiting to be tested. One hunting guides are still waiting to be tested. One hunting guides are still waiting to be tested. One hunting farm was inspected for registration.

Problems Animals

As in previous years, elephant caused a lot of problems. Research is being done at present to determine when, where and why elephant migrate. In the long term, shooting these animals is an unsatisfactory solution.

Two elephant bulls penetrated farming area as far 3 km from Tsumeb while two other bulls turned 2 km sent farms on farms for several weeks before their presence was noticed and reported. Both these farms border on the Etosha Game Reserve and are uninhabited.

147 elephants left the Etosha Game Reserve. Nineteen of these animals had to be destroyed because they had charged officials on three occasions, in seven cases refused to criminals. They had been driven back to the game reserve time and time again but had returned to the farms just as regularly. In all, 128 elephants were driven back.

Lion, passing through the elephant breaks or holes which had been dug by warthog underneath the fence, entered border farms. As far as can be ascertained, 38 lions were shot on border farms. Fifteen were lured back to the reserve.

Cattle from Kaokoland were a serious problem at Otjovasandu where grazing is already limited. The animals entered the reserve through elephant breaks, and where the owners had not done so to the satisfaction of their neighbours. Two black-backed jackal were destroyed on the farms and a fine of R200, 00 per jackal will be collected.

A number of complaints were lodged by farmers in the vicinity of Namutoni concerning hyenas which left the game reserve and caught their livestock. For this game reserve and caught their livestock. For this reason the boundary fence is being strengthened.

Trophy hunting

The popularity of South West Africa as trophy hunting territory is reflected by the yearly increase in trophy hunters –

- 1976 - 495 trophy hunters
- 1977 - 732 trophy hunters – an increase of 49, 9%
- 1978 - 1 129 trophy hunters – an increase of 64, 8%.

The income to the state from trophy hunting permits was R27 675, 00.

The numbers of registered hunting farms, professional hunters and hunting guides increased as follows:

	1977	1978	Increase
Hunting farms	96	203	107
Hunting guides	74	159	85
Professional hunters	11	23	12

As several malpractices have come to light the Division plans to exercise stricter control in the coming year. In the past, certain individuals neglected to declare their actual tariffs, consequently the Division has during the course of the year inquired in depth into the tariffs, trophy prices, etc. And found that they were much higher than had been claimed in the past. There is inevitably a considerable difference in the prices charged by hunting farms and those charged by safari concerns. This was taken into account when the income was calculated.

It was found that the daily tariffs of hunting farms varied from R40, 00 to R200, 00. These, however, are the extremes and the average price is R110, 00 per day per person, all-inclusive with the exception of the trophy. The length of visits varied between 8 and 21 days with an average of 14 days.

Average prices for trophies are as follows:

Kudu R190, gemsbok R190, zebra R250, springbok R70, Warthog R50, Steenbok R50, Duiker R50, Eland R250, Ostrich R80, Hartebeest R150, Impala R80, Blesbuck R100, Blue wildebeest R200.

It is interesting to compare the number of trophies actually shot with the figures for which permission had been granted. This indicates clearly that, as a rule, trophy hunters only shoot animals which they consider being trophies, and are often satisfied with one when they can't find anything better than the first one. In some cases the opposites is also true.

	Permission given	actually shot
Kudu	1 918	827
Eland	539	35
Gemsbok	1 912	653
Hartebeest	1 513	472
Blue wildebeest	319	16
Burchell's zebra	243	30
Mountain zebra	1 035	122
Springbok	1 882	582
	Permission given	Actually shot
Warthog	2 102	696
Duiker	960	64
Steenbok	1 150	198
Ostrich	876	60
Impala	212	28
Blesbuck	193	39

Baboon	) Permission from the	5
Lion	) landowner is sufficient	4
Baboon	) to shoot these animals	47
Black-backed jackal	) and they are indicated	43
Smaller cats	) as trophies on the permit	43

The value of the trophies shot, together with the accommodation on hunting farms, safari trips, etc. Is calculated at R3 097 855, 00. The so-called “non-hunting guests” were not taken into account as there are no statistics available in this respect.

Failure to comply with the trophy laws frequently occurs. On occasion, more trophies than are allowed by law are shot. Cases are sometimes reported where so-called guests stay on farms which are not registered as hunting farms. The “guests” illegally board and hunt for compensation and when the trophies are taken out of the country they are labelled as ‘gifts’. Since there are large numbers of legal gifts it is almost impossible to distinguish the illegally acquired trophy.

The following trophies were, inter alia, taken out of the country.

Kudu	- 80 horns and 3 hides
Hartebeest	- 6 horns and 14 hides
Gemsbok	- 64 horns and 2 hides
Eland	- 2 horns
Springbok	- 68 horns and 11 skins
Warthog tusks	- 48
Zebra skins	- 9
Impala	- 2 horns

The following trophies were exported to the ‘R S A. Most of these were acquired by legal hunting during the hunting season:

Kudu	- 941 horns and 33 hides
Hartebeest	- 5 horns and 3 hides *
Gemsbok	- 648 horns and 2 hides
Ostrich	- 2 skins
Eland	- 4 horns and 4 hides
Springbok	- 4 239 horns and 25 skins*
Zebra	- 29 hides*

Note: * Denotes animals which may not be hunted without special permission

It must be accepted that at least the hunt able game species were hunted for compensation. This represents only a small percentage of the game shot by biltong hunters. There are, however, no other statistics available.

Since the abolishing of the hunting licence systems, game which has been shot for biltong by inhabitants of the Territory cannot be taken into account.

The value of hunt able game on its own is calculated at market prices and amounts to R176 155, 00.

Export of game and game hides

Keetmanshoop

Permission was granted for the exporting of the following hides:

10 402 springbok	23 ostrich
4 gemsbok	4 kudu
751 rock rabbit	

The export levy amounted to R1 591, 00.

Windhoek

This year it has been irrefutably proved that large quantities of game hides are smuggled out of the country, on the one hand to avoid the source of game which has been illegally hunted being traced, and on the other, to evade the levy. The following game hides were legally exported in the course of the year:

Leopard	208	Cheetah	374	Zebra	1 595
Lion	27	Ostrich	1 350	Kudu	21 105
Springbok	19 699	Gemsbok	4 174	Hartebeest	106

The total export levy, including that of Keetmanshoop, amounted to R18 471, 89.

For various reasons, approximately 10% of all game hides were marketed amounted to R184 710, 00.

The majority of animals were shot by landowners for their own use and rations. If such meat had not been acquired in this way it would have had to be purchased and therefore the value of the game should be accounted to the farmer's credit. Calculated according to market prices, this amount comes to R1 966 290, 00.

Only cloven-hooved animals were taken into account.

Permits were issued to farmers to shoot their game and market it themselves. The following animals were shot and marketed:

5 071 kudu	3 439 gemsbok	13 986 springbok
108 warthog	10 Blesbuck	248 eland
122 ostrich		

The value at current market prices, amounts to R916 564, 00. The majority of these animals were sold to biltong factories.

Several farmers again obtained permission to capture and export their game.

The following animals were exported:

265 gemsbok	51 springbok	7 cheetah
55 eland	181 kudu	294 hartebeest
14 giraffe	12 zebra	

The value of these animals is estimated to be R58 940, 00.

Game dealers exported the following game:

6 Blue wildebeest	150 zebra	102 cheetah
62 giraffe	441 hartebeest	281 gemsbok
260 eland	279 kudu	19 porcupine
11 lynx	12 bontebok	23 aardvark
20 steenbok	20 duiker	4 maned jackal
1 Cape badger	1 long-eared fox	9 hyena
63 springbok	11 Cape hunting-dog	

And 4 293 birds of different kinds.

There is a considerable difference in the values of animals that are sold locally and those on the overseas market, as a comparison of their following prices will show:

	Overseas	RSA and SWA
Kudu	R1 200	R180
Springbok	600	90 – 120
Hartebeest	800	180
Mountain zebra	1 000	220
Burchell's zebra	1 200	230

Eland	1 200	180
Giraffe	2 800	1 000
Gemsbok	1 200	180

Prices paid to farmers when the game capturer has to make all his own provisions and arrangements and also supplies transport are:

Zebra	R 80
Eland	R 180
Giraffe	R 300
Hartebeest	R 50
Kudu	R 50

The game catcher is liable for any loss of animals which might occur during capture. The calculated value of the exported animals was R264 423, 00. The figures were obtained from game dealers.

Night Harvesting

34 487 springbok	R713 830, 00
1 389 kudu	97 717, 00
1 359 gemsbok	86 478, 00
	R898 075, 00

The gross income was R1 665 185, 00.

Considerable trouble was caused by game threatening grazing, damaged fences, farm-lands being destroyed, etc. A number of farmers requested permission to shoot protected game for their own use. Permits were given only where numbers justified them. Where a game herd was disproportionate permits were also granted. Permits were issued for the following animals –

1 096 zebra	610 hartebeest	1 656 ostrich
88 giraffe	8 eland	

The value of these animals amounts to R370 260, 00.

Poaching

Game which without any doubt was stolen by poachers was reported to the Division and, where definite identification was established, was as follows:

Zebra	19	Springbok	31
Kudu	236	Blesbuck	1

Elephant	2	giraffe	6
Steenbok	7	warthog	7
Eland	18	duiker	5
Gemsbok	59	ostrich	17

The total value of this game amounted to R52 570, 00 as compared to R20 460 in 1977. It is doubtful whether poaching has increased. The higher figure can be ascribed to the larger percentage of cases which were reported as well as the greater alertness of patrols on the roads resulting in a larger number of offences being tracked down. It must be mentioned that animals which are given up as stolen only pertain to the area which falls under the Administration of SWA.

The over-all turnover of game is therefore:

Income from trophy hunting	R3 097 855, 00
Value of game shot for own consumption	1 966 290, 00
Game shot and sold by farmers	916 564, 00
Night harvesting	1 665 185, 00
Game shot to protect grazing, etc	370 260, 00
Game exported by farmers	58 940, 00
Game exported by game dealers	964 423, 00
Game hunted by biltong hunters for compensation	178 155, 00
Export of hides	184 710,00
Game purchased from farmers by game dealers	106 710,00

The following game was imported by farmers to South West Africa:

8 White rhino	150 Impala	20 Nyala
3 Blesbuck	5 Deer	

Research

The research projects on the population dynamics, behaviour and ecology of the blue wildebeest and elephant in the Etosha National Game Reserve, the monitoring of game diseases and mortalities in Etosha, the research on the vegetation of the Waterberg Plateau Park have already been discussed under the headings Etosha National Game Park, Recreation Resort Hardap and Waterberg Plateau Park.

The last part of the project on the kudu problem on the roads, namely problem evaluation and the testing of reflectors, is now reaching completion. It is intended to complete the fieldwork-work in February 1979 and to have the final report completed by the end of that year. Extensive data have been collected and the results have already brought interesting facts to light, for instance that kudu which have been involved in collisions were not blinded by the vehicles' lights and that relatively few people have been injured to any extent in these collisions.

In the ornithological field research on coastal migratory birds and vultures was continued. As far as the coastal birds are concerned the work was mainly concentrated on counts and ringing. The most important coastal bird habitats were identified and recommendations for the protection therefore were made. Ringing and marking of vultures were continued as well as observations of the already marked birds. (Vultures which had been marked in the Magaliesberg were seen in the Namib). Photographic observations of lappet-faced vultures were completed. The nest record card field-card systems were continued.

The research project on the nutritional ecology of the rock rabbit in the southern part of South West Africa was completed during 1978. The final report was handed in September. Among other things it was found that rock rabbits feed mainly on the leaves of trees and shrubs and those they feed on grass only towards the end of the dry season. Estimates of the competition between rock rabbits and karakul sheep have shown that only about one percent of the agricultural produce of the experimental farms is lost to the rock rabbit population. Consequently it has been pointed out that control of the rock rabbit population would not be economically viable and that the economical utilisation of this problem animal should be promoted instead.

The monitoring of the perennial vegetation in the Kuiseb River is a project which was carried out by the Division and the University of Pretoria collectively. It is part of the Kuiseb River Environment Project and the objective is to determine the effect on the vegetation of water withdrawal from the river. A map of the vegetation has been drawn up and much of the field work has been completed. The information is at present being processed by the University's computer.

The monitoring availability, quality and utilisation of grazing on the gravel plains and dunes of the Kuiseb study area is a project related to pastorage which was launched in 1978 and is also part of the Kuiseb River Environmental Project. The planning of the project has been completed and good progress has been made with the field-work. The main types of veld have been identified, wheel point surveys were done, production premises were fenced off and cut, trees were fenced off and chemical analyses have already been done.

Game utilisation

The utilisation (excluding trophy hunting) of the more important game species in South West Africa in the course of the last three years is summarised in the following table:

Year	Species of game					
	Springbok		Kudu		Gemsbok	
	Culling (Night)	Other	Culling (Night)	Other	Culling (Night)	Other
1976	7 730	44 162	110	22 261	249	11 349
1977	23 746	46 187	1 117	26 809	1 237	4 648
1978	34 4856	1 389	16 968	16 968	1 359	2 414

A small percentage of game which was harvested in 1978 was rejected as not suitable for human consumption:

Game species	Number rejected	Percentage
Springbok	1 175	3, 4
Gemsbok	148	10, 9
Kudu	70	5, 0

A total of 885 tons of venison was exported. The income which South West Africa derived from the night harvesting of game is as follows:

(a) Earned by the landowner:		
Springbok	621 tons at R1, 15 per kg	R 714 150, 00
Kudu	140 tons at R0, 70 per kg	R 98 000, 00
Gemsbok	124 tons at R0, 70 per kg	R 86 800, 00
		R 898 950, 00
(b) Earned by the marksmen:		
	885 tons at R0, 45 per kg	R 398 250, 00
(c) Abattoir fees:		
	885 tons at R0, 25 per kg	R 88 500, 00
(d) Transport to RSA		
	885 tons at R0, 25 per kg	R 221 250, 00
		R1 606 950, 00
(e) Finance, handling and profit (10%)		
		160 695, 00
		R1 767 645, 00

A number of marketing problems were experienced during the year. Several buyers could not cope with the high prices which resulted in a decrease in interest.

Game capture:

The game capturing operations which were undertaken by the Division in 1978 are summarised in the table below. Of the 1 326 animals which were captured, those sold are included in the table, whereas the others were transferred to other localities.

Game species	Number	Amount
Gemsbok	241	R11 885, 00
Eland	130	19 500, 00
Mountain zebra	35	2 040, 40
Hartebeest	33	1 787, 50
Kudu	26	1 040, 00
Springbok	14	280, 00

11 Burchell's zebra, 8 mountain zebra, 4 gemsbok and one kudu bull was given by the Administration to other bodies as gifts. 25 Sable antelope were transferred from Khoabendus (Etosha) to the Waterberg Plateau Park.

The average mortality for the year's capture operations was 5, 3%.

As the interest in live game was waning, price cuts were introduced during the year which resulted in a considerable increase in the purchase of live game.