

Annual Plan 2007-08 DNP Sanctuary

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Particulars of Desert National Park Sanctuary

1. Legal Status

Notified as Sanctuary on August 4, 1980 (Published in Govt. of Rajasthan extra ordinary Gazette dated August 6, 1980)

Preliminary Notification of the National Park issued vide Notification No.F 3(1)73/Rev/GR-8/73 dt 8/5/81

2. Name of the Sanctuary

Desert National Park, Jaisalmer

3. State of settlement of rights

The final settlement of rights in the proposed National Park area is pending.

4. Management Plan

Management Plan as per the latest guidelines issued by GOI. had been prepared for the period 2000-01 to 2011. This has been sanctioned by C.W.L.W. Rajasthan Jaipur..

5. Population Census figures of important animals for the last five years

S. No	Name of the Animals	2001	2002	2003	2004	2005
		Summer	Summer	Summer	Summer	Summer
1	Great Indian Bustard	93	97	84	110	96
2	Chinkara	2066	2979	1806	1969	1979
3	Desert Fox	154	203	177	147	157
4	Desert Cat	7	15	3	7	3
5	Vulture	455	508	410	307	302
6	Spiny tailed lizard	846	908	832	507	607
7	Monitor lizard	26	47	-	27	36
8	Partridge	243	455	317	383	433
9	Peacock	468	425	664	888	838
10	Blue Bull	102	175	19	96	32
11	Sandgrouse	290	644	1372	1145	1418
12	Mongoose	21	-	38	27	31

Note – As per orders of the C.W.L.W. Raj the census of 2006 was cancelled in the entire state.

6. Animals found in the Sanctuary

The main animal species found in the Desert National Park are:

Mammals:

Chinkara or Indian Gazelle (*Gazella gazella*), Desert Fox (*Vulpes bucopus*), Red fox (*Vulpes vulpes*); Desert cat (*Felis libyca*); Jungle cat (*Felis chaus*), Desert Gerbil (*Meriones hurrianae*), Hedgehog (*parachinus.micropus*), Mongoose (*Herpestes edwardis*), Hare (*Lapus nigricollis*), etc.

Birds:

Indian Peafowl (*Pavo cristatus*); Great Indian Bustard (*Choriotis nigriceps*); Haubara Bustard (*Chlamydotis undulata macqueenii*); Common sandgrouse (*Pterocles exustus evalangari*); Ringnecked Dove (*Streptopelia decaocto*); Grey Partridge (*Francolinus pondiceriana interpositus*) etc.

Reptiles:

Spiny Tailed Lizard (*Uromastix hardwickii*); Sand Lizard (*Acanthodactylus cantoris*); Three-striped skink (*Eumeces taeniolatus*); Sand-skink or sand fish (*ophiomorus tridactylus*); common Indian Monitor (*Varanus benghalensis*); Indian Desert Monitor (*Varanus griseus*); Indian Krait (*Bungarus caeruleus*); Racer Snakes COLUBER spp, Saw-scaled viper (*Echis carinatus*); sand boa (*eryx johmil*), *E. conicus*; Dhaman (*Ptyas mucosus*); Striped snakes (*Psammophis* spp). Etc. (Shetty and Pandey, 1984)

7. Type of major flora found in the sanctuary

Botanical Survey of India has reported 168 Taxa of vascular plants belonging to 111 genera under 45 families from the Desert National Park. The following table gives the number of families, genera and species under Dicotyledons and Monocotyledons.

	Decotyledons	Monocotyledons	Total
Species	129	39	168
Genera	88	23	111
Family	42	3	45

There are about 50 taxa of Angiosperms and one species of Gymnosperms which are considered rare and threatened in Rajasthan. Of these *Commiphora wightii* and *Tecomella undulata* which are of great economical importance and considered as threatened are found in the Thar. The other threatened and rare plants occurring in this area are, *Ammannia desertorum*, *Dipcadi erythraeum*, *Enneapogon brachystachyus*, *Ephedra foliata*, *Glossonema varians*, *Heliotropium rariflorum*, *Limeum indicum*, *Moringa concanensis*, *Ryhnhchosia schimperii*, *Seddera latifolia*, *Sesuvium sesuvioides*, *Tephrosia falciformis*, *Tribulus rajasthanensis*, *Ziziphus truncata*

8. Staff position

Sr No	Name of the Post	Sanctioned	Vacant
1	Director	1	0
2	Dy Director	1	0
3	Astt. Conservator of Forests	1	0
4	Ranger Gr I	3	1
5	Forester	9	2
6	Astt Forester	3	0
7	Forest Guard	38	9
8	Jr Actt	1	0
9	UDC	1	0
10	LDC	3	0
11	Driver	2	0
12	Helper	1	0
13	Class IV	2	0
14	Work-Charged employees	39	0
	Total	105	12

9. Wildlife trained staff

Nil

10. (A) Entry fee charges for D.N.P. AREA

Category	Amount charged (Rs)	Eco-development surcharge (Rs)	Total Fee per person (Rs)
A. Indian Citizen	3	7	10
B. Non-Indian Citizen	20	60	80
C. Students (Indian)	1	1	2

(B) Entry fee charges for AKAL WOOD FOSSIL PARK

Category	Amount charged (Rs)	Eco-development surcharge (Rs)	Total Fee per person (Rs)
A. Indian Citizen	5	-	5
B. Non-Indian Citizen	20	-	20
C. Students (Indian)	2	-	2
D. Vehicle charges	10	-	10

Vehicle Charges

	Type of vehicle	Entry Fee	Eco-dev surcharge	Total Fee per vehicle per trip
A	Bus	25	75	100
B	Gypsy, Jeep, Car, Mini Bus, Canter	15	50	65
C	Autoriksha	5	15	20

Camera Fees

	Category	Camera Fees (Rs)	Eco-dev surcharge	Total Fee per day (Rs)
I	Movie 8 mm, 16 mm and camera used by amateur	50	150	200
II	Video Camera and movie camera used by professional photographer for films other than feature films- filming by Indian company / agency	1000	2000	3000
III	Video Camera and movie camera used by professional photographer for films other than feature films- filming by Foreign company / agency	2000	3000	5000
IV	Movie and Video Camera used for feature films	5000	15000	20000

11. No of tourist visitors visiting the sanctuary annually and facilities available for tourists

	97-98	98-99	99-00	00-01	01-02	02-03	03-04
No.	118	264	1061	2518	952	3712	2117
Revenue	9080	19035	86076	299888	160549	122180	253010
	04-05	05-06	06-07	Total			
No.	1639	666	628	13675			
Revenue	141517	66729	68123	1216187			

12. Shooting for films / documentaries carried out during last 5 year

S. No.	Year	No. of films shot	Ad Serial No	Total
1	99-00	-	-	-
2	00-01	2(5 days)	8(15 days)	10(20 days)
3	01-02	1(4days)	3(6 days)	4(10 days)
4	02-03	1(1 day)	4 (5 days)	5(6 days)
5	03-04	1 (2 days)	9 (9 days)	10 (11 days)
6	04-05	-	3 (5 days)	3 (5 days)
7	05-06	-	1 (3 days)	1 (3 days)
8	06-07	1(1 day)	-	1(1 day)
	Total	6(13days)	28(43 days)	34 (56 days)

13. Postal address

Dy Director
Desert National Park
Miazlar Road, Jaisalmer,(Raj) PIN 340005

14. Funds provided under state plan during the last 8 years

Year	Amount (in lacs)
1999-2000	7.75
2000-2001	7.64
2001-2002	7.22
2002-2003	7.00
2003-2004	8.00
2004-2005	6.00
2005-2006	9.62
2006-2007	20.87

15. Funds provided for sanctuary under other schemes (c.s.s.)

Year	Budget allotted	Expenditure
1997-1998	4.15	2.28
1998-1999	9.30	0
1999-2000	-	-
2000-2001	34.66	23.84
2001-2002	30.82	27.90
2002-2003	21.42	20.70
2003-2004	48.57	41.29
2004-2005	38.78	33.35
2005-2006	22.93	22.31
2006-2007	15.72	15.72
TOTAL	226.35	187.39

16. Status of survey and demarcation of the boundaries

Boundary demarcation on ground has been completed and boundary pillars have been constructed along entire length of notified boundary..

17. No of natural / un-natural deaths including poaching incidents w.r.t. Scheduled Animals reported

Three cases of poaching have been registered in the year 2001-03. One pertains to the poaching of hare by Sh Bharat Nath and Shambhoo Nath. The case has been compounded by realizing Rs 3000 as compensation . FIR No of the case is 192/5 dated 4/7/01

Two cases of poaching of Chinkara. vide F.I.R no 192/7 Date 31.12.02. against Dwarka Ram and others and F.I.R. no 207/35 Date 7.1.03 against Mishri Ram and others have been registered and complaints of both cases have been lodged in respective courts.

In year 2003-2004 two cases of poaching of Chinkara have been registered vide FIR No 90/3 dated 21.6.2003 against shri Ratana Ram Bheel and vide FIR No 192/ 8 dated 16.10.2003 against unknown offender . A total number of 22 offence cases during 2003-04 (including above mentioned cases) have been registered . During 2004-05 a total number of 10 offence cases have been registered and a total number of 11 cases have been registered during 2005-06.

In the year 2006-07 one case of poaching of Chinkara have been registered vide FIR No 206/43 dated 14.12.2006 against Topan Nath & ors . Case is under investigation.

17. Fire incidents in the sanctuary : Nil

18. Type and No of weapons and how they are put to use

The weapons available for the protection are as follows

I	12 Bore gun	10
II	Revolver	1

The weapons are carried by staff while on patrolling .

19. Type and No of vehicles and how they are put to use and whether purchased from central/state funds.

Type	Reqd	Available	Use	Justification
Gypsy CSS funds	2	2	For use by the Director and Dy Director.	Necessary for inspection
Mini truck (Bolero camper) CSS funds	1	1	Patrolling by staff	Necessary for preventive patrolling
Jeep (donated)	1	1	Patrolling by staff	Necessary for preventive patrolling
Trucks	2	2	Transportation of water and feed material . Misc. transportation	Both the available trucks need replacement
Motor Cycle CSS funds	3	3	For 3 Range officer	3 Range officers have Large Jurisdiction

20. No of various types of wireless sets (fixed/ mobile/ handset) and how they are put to use

Fixed	Mobile	Handsets
10	3	18
Fixed at Protection Posts and Range HQ Jaisalmer / Barmer / Myzlar (with one set each range for stand-by)	Fixed in Jeep, Bolero (mini truck) and Gypsy	Issued to working staff of PA.

These have been installed at different protection posts & issued to the staff on protection duty for preventing of poaching.

21. No of beats/sections/ranges

Beat	Sections	Ranges
Not constituted	Nil	3

22. How often the vehicles are requisitioned by the Dist. Adm. at time of national programs like

The vehicles are requisitioned by the Distt authorities for use in Pulse Polio campaign, election and V.I.P. visits etc.

23. Major problems in the area

1. Lack of adequate funds.
2. Lack of infrastructure and communication facilities.
3. Lack of applied research and public awareness.
4. Lack of adequate staff and trained manpower.
5. The average age of staff is quite high.
6. The IGNU is proposed to pass through the sanctuary area affecting about 600 sq km of its area.

24. Tenure of last 5 Incumbents/ In charge of the sanctuary.

1	Sh. U.S. Ranawat	DCF	26.8.94 to 3.5.97
2	Sh. M.L. Sonal	ACF	3.5.97 to 2.6.97
3	Sh. L.S. Kumpawat	DCF	2.6.97 to 27.8.98
4	Sh. R.K. Singh	ACF	27.8.98 to 23.9.98
5	Sh. I.A. Mugal	DCF	23.9.98 to 12.1.99
6	Sh. R.S. Nathawat	DCF	12.1.99 to 15.8.02
7	Sh. C.P.Singh	A.C.F.	15.8.02 to 8.10.02
8	Sh. R.P.Gupta	D.C.F.	8.10.02 to 23.4.2003
9	Sh. M.L.Sonal	D.C.F.	23.4.2003 to 8.10.04
10	Sh. V.N.Sharma	D.C.F.	8.10.04 to 20.10.04
11	Sh. Rajiv jugatavat	D.C.F	20.10.04 to continue

25. Budget Utilization for the year 2006-2007 including Central Assistance.

S. No.	Budget Head	Total Allocation (in lacs)	Exp. Upto	Remarks
1	2406-02-110-(005) Plan	5.00	5.00	
2	2406-02-110-(005) N/P	1.00	1.00	
3	2406-02-110-(003) N/P	1.50	1.50	
4	2406-02-110-(005) C.S.S.	15.72	15.72	
5	4404-01-102-(11) Plan	15.37	15.35	
	Total	38.59	38.57	

OFFICE OF THE DEPUTY DIRECTOR D N P JAISALMER

Item wise Details of Annual Plan of Operation of D.N.P. Sanctuary for 2007-2008 for grant in aid under CSS

Management -plan Page/Item	Item of expenditure / Type of work	Location	Unit	Physical Targets	Total cost in Rs Lac	Amt Required for current year	Priority of Works	Justification
1	2	3	4		5	6	7	8
42/B	HABITAT IMPROVEMENT							
B.1	Construction of new closures	DNP	Hect.	400	14.00	14.00	First	Parts of the DNP have become degraded due to overgrazing . This needs to be restored by proper fencing and creation of water gazellars.
B.3	Improvement of old closures	DNP	Hect.	400	3.50	3.50	First	Closures of previous years have lost effectiveness, restoration of fencing is necessary
42/c	INFRASTRUCTURE							
c.1	Construction of wireless room	DNP	Nos.	1	2.50	2.50	First	To Provide bilding for existing wireless station.
43/M	Water facilities 1. Providing water facilities for wild life, live stock & field staff.	D.N.P.	L.S.	L.S.	2.75	2.75	First	Additional water supply is needed during pinch period and in the eventuality of famine
44/R	PROTECTION/ MAINTENANCE							
R.4	Running and maint. Of petrolling vehicles and trucks & Motor cycles	DNP	Nos.	8	1.50	1.50	First	For patrolling in sanctaury areas and minimam inspection requirements
R.1	Maintenance of old	DNP	L.S	L.S	6.00	6.00	First	Necessary requirement of

	closures							sanctuary area
R.2a	Maintenance of Protection posts- Jhopas	DNP	L.S	L.S	5.00	5.00	First	Necessary requirement of sanctuary area
R.2b	Maintenance of Protection posts- Light Fascility - Solar light	DNP	L.S	L.S	0.75	0.75	First	Necessary requirement of sanctuary area
R.3	Maintenance of wireless equipments	DNP	L.S	L.S	0.50	0.50	First	Necessary requirement of sanctuary area
R.5	Maintenance of Tankas & gazeller	DNP	L.S	L.S	1.00	1.00	First	Necessary requirement of sanctuary area
R.8	Feed & Foder for wild life	DNP	L.S	L.S	2.00	2.00	First	Necessary requirement of sanctuary area
R.6	Maintenance of office & other bildings	DNP	L.S	L.S	1.25	1.25	Second	Necessary requirement
R.7	Physical health of livestock (Horses and Camels)	DNP	L.S	L.S	0.25	0.25	First	To keep them in useful condition .
42/F	PUBLICITY AND EXTENSION							
F.2	Desplay material	DNP	LS	LS	0.10	0.10	First	To create wildlife awareness.
F.3	Celebration of Wildlife week	DNP	Nos.	1	0.50	0.50	First	To create wildlife awareness.
44/O	ECO - DEVELOPMENT							
O.1	Inside DNP							
O.1a	Veterinary camps	DNP	Nos.	6	1.20	1.20	First	To help people(residing in thesanctaury area) for maintaning healthy cattle population
O.1b	Health camps	DNP	Nos.	3	0.45	0.45	First	To help the poor people & induce their involvement in conservation
44/Q	DEVELOPMENT OF SATELLITE AREA							
Q.2	Feed , Water and shelter for wildlife	DNP	L.S.	L.S.	1.50	1.50	First	Necessary requirement of satellite areas

Q.3	Protection and maintenance of closures and protection posts	Satellite areas	L.S.	L.S.	2.00	2.00	Second	Necessary requirement of satellite areas
43/L	Development of Akal Wood Fossil Park							
L.	40-1 Digging of Bore well at Akal wood fossil park including construction of pump house, electrical connection and laying of pipeline etc.	Akal wood fossil park (satellite)	Nos.	1	9.00	9.00	First	To improve landscape of the area and provide drinking water to visitors, staff, fauna of the area.
	Preservation and protection of fossils	Akal wood fossil park (satellite)	L.S	L.S	0.50	0.50	Second	To extend protection to exposed fossils
					Total	56.25	56.25	

OFFICE OF THE DEPUTY DIRECTOR, DESERT NATIONAL PARK, JAISALMER
Proposals for revalidation against savings of sanctions under CSS 2006-07

S.N.	Item of expenditure	Sanctioned amount	Total expenditure during 06-07	Saving	Amount required for revalidation
	Spill over works -				
1	Reseeding in old closures with two year maintenance -sowing of sewan grass seed-6 kg/ha mixed with clay & manure as per standard technique - 2400 kg for 400 ha	1.50	0.00	1.50	1.50
2	Seminar- 1 no.	0.10	0.00	0.10	0.10
3	Winter census - 1 no.	0.50	0.00	0.50	0.50
4	Training for staff - 1 no.	0.50	0.00	0.50	0.50
5	Literacy programme - LS	0.50	0.00	0.50	0.50
6	Digging of bore well at Akal wood fossil park including construction of pump house, electrical connection and laying of pipeline etc - 1 no	3.00	0.00	3.00	0.00
	Total proposal for revalidation	6.10	0.00	6.10	3.10

Note - Revalidation for I.No 6 above is not proposed due to insufficient sanction of Rs. 3.00 Lac, (Against estimated cost of Rs. 8.00 Lac) instead the item has been proposed again in the A.P.O. of 2007-08

Dy Director
D.N.P. Jaisalmer

OFFICE OF THE DEPUTY DIRECTOR, DESERT NATIONAL PARK JAISALMER
Itemwise details of expenditure of A.P.O. under C.S.S. head during 2006- 07 (upto 31.3.2007)

S.N.	Name of works	Target		Achievement		Deviation with Reasons
		Financial	Physical	Financial	Physical	
1	Reseeding in old closures with two year maintenance -sowing of sewan grass seed-6 kg/ha mixed with clay & manure as per standard technique -2400 kg for 400 ha	1.50	400 ha.	0.00	0.00	Seed sowing season expired prior to sanction
2	Improvement of Old closures - 258 ha.	4.00	258 ha.	4.00	258 ha.	N.A.
3	Purchase of carnel & concern equipments for patrolling - 2 no	0.40	2 no.	0.40	2 no.	N.A.
4	Display material - LS	0.10	-	0.08	-	N.A.
5	Celebration of Wild life Week - LS	0.25	1 no.	0.25	1 no.	N.A.
6	Audio/video set including LCD projector Computer & related equipment/machinery -LS	0.80	-	0.80	-	N.A.
7	Seminar - 1 no	0.10	-	-	-	As per foot note
8	Winter census - 1 no	0.50	-	-	-	As per foot note
9	Training for staff - 1 no	0.50	-	-	-	As per foot note
10	Digging of bore well at Akal wood fossil park including construction of pump house,electrical connection and lying of pipeline etc - 1 no	3.00	-	-	-	Against estimated cost of Rs. 8.00 Lac sanctioned amount of Rs. 3.00 Lac was not sufficient
11	Providing water facility for wildlife,livestock,fieldstaff- LS	2.75	-	2.75	-	N.A.
12	Veterinary camp - 3 no	0.45	3 no.	0.38	3 no.	As per actual requirement
13	Health camp - 3 no	0.30	3 no.	0.29	3 no.	N.A.
14	Literacy programme - LS	0.50	-	-	-	As per foot note
15	Ammunition cost LS	0.10	-	0.10	-	N.A.
16	Wildlife awareness & publicity LS	0.20	-	0.20	-	N.A.
17	Feed,water & shelter for wildlife - LS	1.50	-	1.49	-	N.A.
18	Protection & maintenance of closures & protection posts - LS	5.00	-	4.98	-	N.A.

	Total	21.95		15.72		
	Less Unspent balance of previous year	0.42				
	Net Release	21.53				
	First instalment	15.30				
	Budget allotment by PCCF & Chief wildlife warden Rajasthan Jaipur vide no f ()dev cwlw/ 2006-07/7781-82 dated 1.9.2006 & letter no f ()dev cwlw/ 2006-07/8648-49 dated 30.3.2007					

Note - The item of expenditure opened on release of first installment were restricted to total out lay of 15.72 lacs. And item No 7,8,9,14 could not be opened after issue of state govt. sanction of second installment of Rs. 6.23 lacs.

Dy
Director
D.N.P.
Jaisalmer

FORMS
FORM GFR 19-A

[See Government of India's Decision (1) below Rule 150]

Form of utilization Certificate

Sl. No.	Letter No. and date	Amount (Rs in Lac)
1	Govt of India letter No. 21-000120/ WL Dated 3.8.2006	21.95
	Less unspent balance of previous year	00.42
	Net release	
	First installment	21.53
	Second installment	15.30
	Total	6.23
	Total installment plus balance of previous year-Total	21.53
		21.95

Certified that out of Rs...21.53 Lac of grants-in-aid sanctioned during the year 2006-07 in favour of Desert national park Sanctuary Jaisalmer under this Ministry/Department Letter No. given in the margin and Rs. 0.42 Lac on account of unspent balance of the previous year, a sum of Rs 15.72 Lac has been utilized for the purpose of D.N.P. Jaisalmer for which it was sanctioned and that the balance of Rs .6.23 Lac remaining unutilised at the end of the year has been surrendered to Government (vide No 1079 dated 30.3.07.) will be adjusted towards the grants-in-aid payable during the next year 2007-08

Certified that I have satisfied myself that the conditions on which the grants-in-aid was sanctioned have been duly fulfilled are being fulfilled and that I have exercised the following checks to see that the money was actually utilized for the purpose for which it was sanctioned

Kinds of checks exercised

1. Item wise details are enclosed .
- 2.
- 3.

- 4.
- 5.

Signature.....
Designation.....
Date.....

[G.I.M.F.O.M.No.F.14(1)-e.11(a)-73, dated the 23rd April, 1975]

A BRIEF NOTE ON DESERT NATIONAL PARK JAISALMER

1. Introduction

The Indian Thar Desert constitutes nearly 9 % of the geographical area of India. It is one of the smallest deserts in the world, however its biodiversity is very high. In order to protect the fauna and flora of Thar Desert, National Commission on Agriculture 1976 had laid down emphasis on creating a Biosphere reserve in Desert region. The idea was to protect desert eco-system in its natural form for times to come. Shah Badar of Iraq along with trained Falcons and other hunting equipment came to India for hunting in 1979. This action was widely opposed by local people because Shah Badar of Iraq had hunted Godavan and Tilor birds along with other wildlife. With the result the Desert National Park sanctuary was created in the Jaisalmer and Barmer district in western part of Rajasthan in 1980.

After many years of deliberations and after report from National Agriculture Commission in 1976 and Wildlife Advisory Board Expert Committee 1977, an area of 3162 sq km falling in Jaisalmer and Barmer Districts of Rajasthan was selected in 1980 to be developed as the Desert Wildlife Sanctuary. The area so identified was declared as sanctuary under section 18 (1) of the Wild Life (Protection) Act 1972 vide Govt. of Rajasthan Revenue (Gr.VIII) Department Notification dated 4 August. 1980 (Published in Rajasthan Gazette extra ordinary dated 6 August. 1980) The Govt. of Rajasthan vide its Revenue (Gr.VIII) Department notification no. F 3 (1) 73/ Rev.Gr VIII / 73 Dated 8.5.1981 has declared under sec. 35 (1) of WLP Act 1972 its intention to constitute the same area as National Park. The area has not yet been finally declared a National Park..

There are 73 villages located in the Sanctuary area having a total population more than 49000. The cattle population of all these villages is approximately 329000. In addition, nine satellite areas out side the boundary of sanctuary have also been identified and fenced to supplement welfare factors to wildlife of the region.

2. Location

The area is situated near the border area of Pakistan and India at 25° 47' to 26° 46' N and 70° 15' to 70° 45' E. The nearest Railway Station of this Sanctuary is Jaisalmer and can be approached both by train and by road from Jodhpur city.

3. Objectives

Desert National Park is the only sanctuary in India which represents typical Desert Eco-System. The main objectives of creating and managing this Sanctuary are :-

- A) To conserve the flora, fauna and the landscape in its natural form perpetually.
- B) To protect the natural habitat of critically endangered State bird of Rajasthan the Great Indian Bustard and build up a viable optimum population.
- C) To promote regulated Eco-tourism and induce people's participation in conservation.
- D) To carry on basic and applied research for the endemic rare fauna and flora of this area for sound park management.

4. Geological Features

Desert area of Park is characterized by extremes of temperature and paucity of water for the living creatures. The great Indian Desert is different in the sense that is not an endless stretch of sand dunes devoid of vegetation and life geographically it holds a rather debatable position as it exhibits a mixture of peninsular, extra peninsular and Indo gengatic features, shifting sand dunes, fixed dune, inter dunal areas shifting and inland including drainage sheet rock 'Magra' lands and hills shifting sand dunes form only a fraction of the area. The Desert National Park is a Park of typical desert containing all the typical features of the desert besides several important satellite area of Great Indian Bustard i.e. Ramdeora, Rasla, Ujlan are under control of this office. Akal wood fossil park, where 180 million year old fossils are preserved and displayed is also looked after by this office.

5. Flora & Fauna

A. Flora

The flora is representative of the Thar Desert. Fixed sand dunes are largely covered with Fog (*Calligonum polygonoides*), *Haloxylon salicornicum* and *Aerva persica*. In the inter dunal region *Citrullus colocynthis*, *Tribulus alatus*, *Acacia jacquemontil*, *Calligonum polygonoides* and *Cyperus spp* are found. Okhali areas are devoid of vegetation. In low lying basin, occasional growth of *Salvadora oleioides*, *Prosopis cineraria* is recorded. On sandy plain region, vegetation cover is mostly of *Calligonum polygonoides*, *Capparis deciduas*, *Haloxylon salicornicum* and clumps of Sewan grass (*Lasiurus indicus*) and *Cymbopogon* grass. On rocky and gravel plains, *Capparis deciduas* and *Commiphora wightii* occur. *Tephrosia purpurea* and *Calotropis procera* are commonly found on the sandy areas of DNP.

B. Fauna

1. Insects

The rich insect fauna, which is a characteristic of this desert, plays a remarkable role as a micro-consumer in the existing ecosystem. Although most elements of this fauna are found to be present almost through out the year, they exhibit a high population build up particularly during the rainy season. They cause much loss to the growing vegetation especially in this season. The termites attack the roots of the plants. Locusts and grass hoppers do much loss to the growing vegetation.

2. Amphibians & Reptiles

The amphibian fauna of this region is restricted to one species of toad and five species of frog. The toad *Bufo andersonii* is widely distributed along the ephemeral water-courses and temporary ponds.

The desert is quite rich in reptilian fauna. Spiny Tailed Lizard (*Uromastix hardwickii*), Desert Monitor (*Varanus griseus*) are included in Schedule I of the Wildlife (Protection) Act 1972. In the rocky habitat, lizard *Alsophilax tuberculatus* is very common. The fat tailed lizard (*Eublepharis macularius*) and keeled rockgecko

also occur under stones. Agamid lizards (*Calotes versicolor*, *Agama agilis*) are usually found on shrubs and trees.

In the sandy habitat, the most common reptile of this habitat is lacertid (*Acanthodactylus cantoris*), which is found on undulating sand dunes and inter dunal sandy plains. Desert is also quite rich in species of snakes like cobra, *Eryx* species, *Ptyas* species.

Krait	<i>Bungarus careuiesns</i>
Russel's viper	<i>Vipera russelli</i>
Spiny-tailed lizard	<i>Uromaxtys hardwicki</i>

3. *Birds*

The density of bird population here is lower than in the moist habitat. The Grey Partridge (*Francolinus pondicerianus*) is commonly found. The Common Quail also occurs in this region. The Great Indian Bustard is another magnificent bird found in relatively fair number. The Great Indian Bustard, Desert Courser, Tawny Eagle, Spotted Eagle, Hawks are some of the endangered bird species of this region. This region is a heaven for certain migratory birds. The rosy pastor & spotted starling and large number of larks migrate to this region in the winter from European countries and Himalayan region respectively.

4. *Mammals*

Over 60 species of mammals have been recorded from this desert region. The Chinkara (*Gazella dorcas*) population is quite healthy in the Park especially inside closures. The Rozara (Blue bull) is fast spreading along the Indira Gandhi Nahar Canal area. The Desert Cat (*Felis lebyca*), the Desert Fox (*Vulpes v. pusilla*), the Jackal (*Canis aureus*), the Wolf (*Canis lupus*), the Hare (*Lepus nigricollis*) and the Hedge Hog (*Hemiechinus auritus collaris*) are fairly common in this area. Large populations of the rodents are a unique feature of this desert.

6. Importance of the Park

The Desert National Park have tremendous values, some are briefly listed below :

A. **Economic Value:**

Most of the undisturbed areas, not under human occupation, are covered by Sewan grass *Lasiurus indicus* which is considered to be one of the finest fodder grass in India. Most of the people are shepherds and depend totally on livestock. The DNP maintains this grassland-based economy of rural poor. Its closures serve as a seed bank.

B. **Conservation value:**

For species such as globally endangered Great Indian Bustard or Godawan, the DNP is vital for survival. The largest numbers of Godawan are found in the DNP. Godawan is the State Bird of Rajasthan. The satellite enclosures of DNP are also extremely important for the survival of Godawan. Besides the bustard, the DNP plays an important role in protecting Desert Fox, Chinkara, Spiny-tailed Lizard, Desert Hedgehog, Houbara Bustard, various species of raptors, endemic White-browed Bushchat, various species of sand grouse, larks, chats and warblers.

1. Ecological:

The DNP has a crucial ecological role by maintaining the natural desert ecosystem. The closures help in soil conservation and sand dune stabilization. natural trees, shrubs, herbs and grasses are very rich genetic resource. As more and more areas come under the influence of the IGNP, the role of DNP would increase as a repository of plant and animal genes. Who knows we may need such genes for dry land crops in future.

2. Educational and Scientific:

The DNP is like an open classroom for children, teachers, scientists and lay people. The area of DNP was selected in such a way that it represents all the natural features of the Thar Desert, from majestic sand dune of Sam to rolling grasslands of Sudasari, to stony plains (*magra*) in Barmer district. It is a laboratory to understand working of complex desert ecosystem.

3. Tourism:

Jaisalmer is becoming a very popular tourist destination. The famous Sam Sand dunes are at the border of DNP. The Akal Wood Fossil Park at Akal is a part of DNP. This Park has good potential to become as a tourist attraction place. The Great Indian Bustard is perhaps the most famous endangered birds of India. Despite numerous difficulties in visiting DNP, many ornithologists have visited DNP just to see this grand bird. With increasing mobility and communication, it may not be difficult to arrange special tours of ornithologists and bird-watchers to DNP just to see this bird. It can earn significant revenue from tourism. However, tourism has to be regulated to maintain the ecology.

7. Management

- I. The planned development of DNP was started in year 1979. The first five year management plan was prepared for year 1978-79 to 1982-83. Second plan was prepared by M.L.Tak for the year 1990-91 to 1995-96
- II. One of the major objectives of the DNP is to develop 300 sq km. as core areas (closures) in which human interference is kept to a minimum and livestock grazing should be totally banned. In the initial stages, Sam, Sudasari, Phulia, and Miyajlar closures were established. Efforts are being made to add new closures and maintain the old ones. Presently, there are 27 closures. Besides the closures present inside the boundary of the DNP, there are nine closures, which are outside the boundary, which are called as satellite conservation areas.
- III. The management of Park is headed by Director, DNP & Conservator of Forests, Wildlife, Jodhpur. The administrative control at Jaisalmer (HQ) is controlled by Dy. Director, DNP with his subordinate Assistant Conservator of Forests and Range Officers, Subordinate Staff, which is posted at different Range HQs, Protection Posts and Closures in the entire Sanctuary area. There are three ranges in the division viz Jaisalmer, Miazlar and Barmer.

- IV. The entire sanctuary is having a wireless network to improve communication and control any illicit activities.
- V. Census is carried out twice a year one in May and another in winter. The last census was done in May,2005 in 30 pre-determined tracks.

8. Management problems

1. Denotification:

There is a demand from local politicians that the area should be denotified and activities like for mining of steel grade lime, grazing and other developmental activities may be permitted. There is pressure to remove fencing of the satellite areas. These closures were actually developed on revenue land, away from villages, so that they do not disturb in any way the movement of the people and livestock. These closures play a very important role by serving as seed banks and grass banks. During severe drought years, when there is hardly any grass else where, the closures have good ground cover. The ecological value of these closures is immense. The DNP in general and closures in particular are playing a significant role in saving the highly endangered Great Indian Bustard. The eminent ornithologist Sh Asad Rehmani, Director, BNHS, Mumbai has commented, "It will be a tremendous loss to the nation if DNP is denotified under populist pressure. On the other hand, the local leaders should help the Forest Department and District Authorities to protect this Park."

2. Gadra Road Tributary:

Gadra Road tributary is proposed to pass through the area of the DNP affecting about 600 sq km of its area. If this canal is constructed it is likely to change the ecosystem of the area immensely as has happened in the areas where it has already passed. The proposed canal is an extension of Sagarmal Gopa Shakha, which has been completed till 190 R. D. The canal could play a slightly beneficial role for local Wildlife if the water were not used for agriculture purposes inside the Park boundary, but it will be almost impossible to prevent the use of water because the land inside the Park is still in private hands and once the water comes, people are bound to use it for agricultural and livestock. Knowing that the canal is likely to come in the area it may even become difficult to relocate them to other areas. Bringing water into the Park will not only make it difficult to translocate the local people but will attract settlers from outside, as has happened near Mohangarh, where the rich have bought land despite the fact there is a law prohibiting outside settlers.

3. Over Grazing:

Except for the Sudasari closures, livestock grazing is commonly seen in all other closures and rest of the Park. Easy availability of drinking water has tremendously increased the livestock. Earlier graziers used to lead a nomadic life, leaving the desert during the summer when water was the limiting factor, but now they live throughout the year, leading to severe pressure on the land. Some of the DNP closures come across as a pleasant change to the overused land.

Unfortunately most of these closures are old and in bad shape, with broken fence and gates. The closures of Sudasari and Miyajlar are better protected, resulting in

good sighting of Bustard, Chinkara, Eagles and other Wildlife. All the closures of DNP need to be effectively protected from grazing and overuse.

4. ONGC Programme:

Oil & Natural Gas Corporation is exploring the prospects of oil & gas in side the Park area. If oil is found in exploitable quantities it may become a real threat to the entire Sanctuary. However if the ONGC agrees to use the land in a particular way suggested by the ecologists and agrees to finance the management of this park it may turn out to be a blessing in disguise.

5. Mineral Deposits:

The availability of steel grade lime in the area is another possible threat to the park. Although the area affected is not very significant yet its location in the area, which is considered the heart of the park, is frightening.
