

2017

Annual Report Neyyar Lion Safari Park



Report of the activities of Neyyar Lion Safari for the Period April 2016 to March 2017 is provided with supportive pictures of events. Statutory Annual Report of the zoo for the year 2016-17 as communicated vide CZA letter – F.No.18-2/2017-CZA Dated 30/10/2017.

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1. Introduction to Zoo/ Lion Safari park, Neyyar

Introduction to the Area

The Neyyar Wildlife Sanctuary falls between 8°17' and 8°53'N latitude and 76°40' and 77°17'E longitude and is located in the Thiruvananthapuram District of Kerala. The Neyyar Wildlife Sanctuary has an area of 128 sq.Km which is on the western slope of the Southern Western Ghats. The river Neyyar originates from the Agasthyamala peak, which the legends say is the home of sage 'Agasthya'. The water in Neyyar is therefore considered as Ghee and hence the name 'Neyyar'. The area was previously part of the Thiruvananthapuram Forest Division up to 1982. During 1982, a separate Wildlife Division was formed with Headquarters at Thiruvananthapuram for better administrative control and effective management of the sanctuary.

History

The Lion Safari Park was established in 1984 at Marakkunnam, Neyyatinkara Taluk of Thiruvananthapuram district and was opened to public on January 1985. The Lion Safari Park is one of the major tourist's attractions in Thiruvananthapuram district and is visited by a large number of visitors annually. Initially there was one Lion and three Lionesses brought from Thrissur Zoo. Later three offspring were produced which included one male and two females taking the total number to seven. Presently there are only two lionesses in the park. The park is carved out from the Neyyar Wildlife Sanctuary area and spread across ten acres of land which is fenced all along its boundary. It is situated at Marakunnam which is situated four kilometers away from the Head Quarters of the Neyyar Wildlife Sanctuary. An approach road is constructed from the mainland and through the Lion Safari Park wherein the tourists are taken in by specially built safari vehicle (minibus) assuring maximum safety of the visitors and also enables them to get a close view of the Lions.

Physical Features like Topography of the Area

The Lion Safari Park is spread across an area of 4ha (10 acres) of land. The terrain is undulating and characterized by a gentle slope which is almost surrounded by waterbody.

Geology

The Lion Safari Park is part of the Neyyar Wildlife Sanctuary and is located on the western slope of the southern Western Ghats. The land exhibits few rocky patches here and there.

Rock & Soil

The dominant rock types in this area are Precambrian metamorphic belonging to the Khondalite group. Charnockite is also exposed at different locations. The underlying rock is principally gneiss. The soil is almost loamy and assumes sandy and clayey character.

Flora and Fauna in Lion Safari Premises

The flora comprises of species such as *Terminalia paniculata*, *Pterocarpus marsupium*, *Albizia odoratissima*, *Artocarpus 2irsute*, *Hopea parviflora*, *Lagerstroemia microcarpa*, *Dalbergia latifolia*, *Bridelia retusa*, *Grewia tiliifolia*, *Mitragyna parviflora*, *Vitex altissima*, *Dillenia pentagyna*, *Careya arborea*, *Lannea coromandelica*, *Wrightia tinctoria*, *Mallotus philippensis*, *Emblica officinalis*, *Cassia fistula* etc. Since the area is fenced, the possibility of any animals coming in and out is not possible. Several species of birds and butterflies are seen in the Lion Safari Park.

Climate

The climate is hot and humid with mean maximum temperature during the hottest months reaching up to 36⁰C while it comes down to around 19⁰C during the coldest months of December and January.

Rainfall

The area receives maximum precipitation during the months of June to August (South-West Monsoon). The North-East Monsoon during the months of November to January also brings slight rainfall.

Approach

The Lion Safari Park is located at Marakkunnam, which is within a perimeter of 4kms from the Neyyar Wildlife Sanctuary headquarters ie. from the office of the Assistant Wildlife Warden, Neyyar Wildlife Sanctuary. The place is approachable by road and is 33kms away from Thiruvananthapuram the State capital. The nearest town is Kattakkada which is 10kms away from Neyyar Wildlife Sanctuary. Kerala State Road Transport Corporation (KSRTC) is running public transport buses from Thiruvananthapuram and Kattakkada to Neyyar. The nearest Railway station is Thiruvananthapuram Central which is 33 Km away from the Sanctuary. The nearest Airport is the Thiruvananthapuram International Airport at Vallakkadavu, Thiruvananthapuram which is 43 Km away from the Sanctuary.

Demography of the Surrounding Area

The major human habitation in Neyyar Wildlife Sanctuary surrounding the Lion Safari Park belongs to the 'Kani' tribe. They have a settlement at Vlavetty that supports around 90 families. Other than this, around 70 families of non tribals also occupy private lands near the Lion Safari Park. However there have been no negative impacts or disturbances to the Lion Safari Park due to the presence of people in the surrounding.

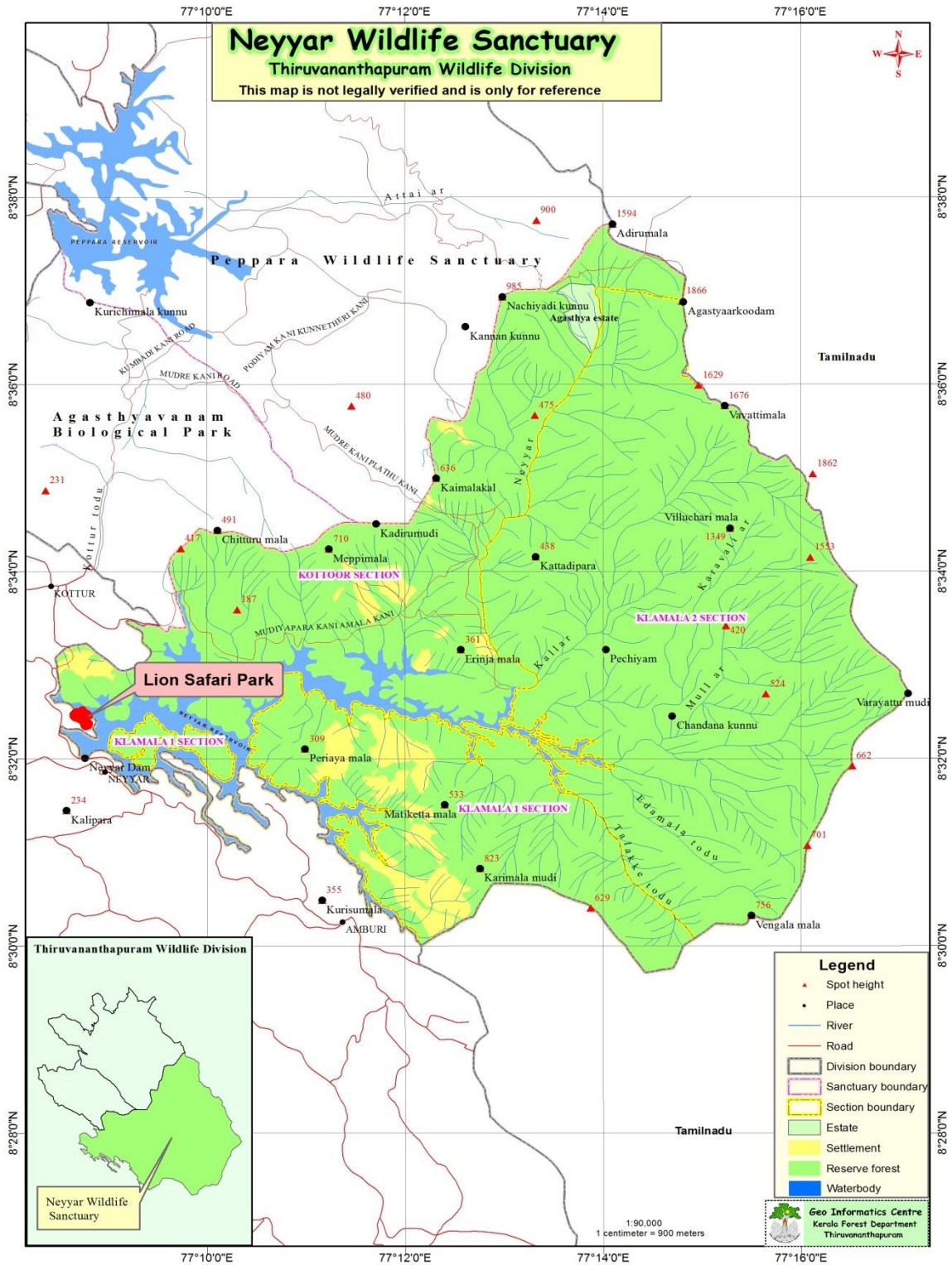
Legal Status of the Land

The Lion Safari Park is functioning in the Reserved Forest area of Neyyar Wildlife Sanctuary which was constituted as per the notification no., GO (MS) 781/58/AD dated 06/08/58 and thus has the status of a sanctuary. The Lion Safari Park is recognized by the Central Zoo Authority vide letter F No.19-186/93 CZA (136) (M) dated 24/02/2006.

Sources of Pollution

The Lion Safari Park is encircled with chain link fencing and is prohibited from any sort of trespassing. Only controlled entry of visitors is allowed through the specially designed Lion Safari Park bus operated by the Kerala Forests and Wildlife Department. As such the park is protected from any form of pollution. The remains of the meat and other wastes are disposed of properly in a garbage pit situated outside the fencing area of the Lion Safari Park.

Map- Location of Lion Safari Park in Neyyar Wildlife Sanctuary



Map 2: Present Layout of Lion Safari Park



2. Zoo Activities at a glance (2016-2017)

- **Animal Habitat and upkeep**
- **Health care**

Animal Section

The Lion Safari Park is inhabited by only a single species, the Lion. Presently there are only 2 Lionesses. The animals are let free in the enclosure which spreads across an area of 10 acres (4ha) which is primarily moist deciduous forests. The enclosure is protected by 3 meter high chain link fencing. There is a cluster of cages/cubicles at one end of the fence kept as night shelter for the animals wherein they are housed at night while they roam free in the enclosure during day hours. Five cubicles are with iron barred fencing on all the sides and four cubicles are with brick wall on three sides and iron bars in the facing side. Each cubicle has two entrances, one towards the safari area for the animals to move in and out. The second entrance is for the safari keepers to enter for cleaning purposes. This entrance can be opened and closed with shutters which can be operated from outside with the help of rope and pulley system. All the cubicles are connected by inter cubicle sliding shutters. Each animal is housed separately in cubicles during non safari, feeding and night hours. In one of the cubicle an inbuilt squeeze cage is installed for medical treatment and other such purposes. At one end of the cubicles, a large room is constructed with brick wall on all the sides which is used as segregation/quarantine cubicle. The quarantine ward is opened to a small enclosure called segregation or quarantine area which is separated from the main Safari area by chain link fencing. The park also contains a postmortem room. A covered pit for solid waste disposal is also constructed within the safari premises.

Veterinary

A round the clock fully functioning veterinary hospital is not available exclusively for the Lion Safari Park. However the service of the Forest Veterinary officer in the department is available on a regular basis and also as and when required. The services

of local Government Veterinary doctors of Kallikkad and Kuttichal and the Veterinary doctor of the Thiruvananthapuram Zoo are also utilized whenever necessary. Laboratory examinations and other similar investigations are conducted at the Chief Disease Investigation Office, Palode, Thiruvananthapuram under Animal Husbandry Department. Lion Safari Park is equipped with a quarantine ward, segregation cage, in built squeeze cage and post mortem rooms.

Store and Feed Supply

The utensils and other equipments necessary for the maintenance and upkeep of the animals are kept in the store room near the enclosure. The system of food supply is by issuing annual tender contract. The diet schedule for the animals is prescribed by the Forest Veterinary Officer which is revised every year and from time to time. Generally the quantity of meat given for the Lion is 8kg (beef) and for the Lioness is (6kg). The Lions are fed every day, except Monday. The meat is brought from the Government approved slaughter houses by the contractor in the afternoon. The food is taken to the store at the sanctuary headquarters where it is weighed under the supervision of the section forest officer who is in charge of the animals. The quality and quantity of the meat is verified and ascertained by the Wildlife Assistant and Assistant Wildlife Warden. The weighed meat is transported from the feed store to the cages of the Lion Safari Park through the boat by the laborers engaged for the same and the animals are fed with the meat within the cubicles after the safari hours at 4'o clock in the evening.

Sanitation

The sanitation is looked after by the daily wage mazdoors and watchers under the supervision of a section forest officer. They look after the general cleanliness of the Lion safari park.

Maintenance

There is no separate maintenance section. Any sort of maintenance works are carried out as and when required by hiring skilled workers. Regular and periodical maintenance of all infrastructural facilities in the Lion Safari Park shall be carried out.

Security System

The Lion Safari Park extends over an area of 10 acres (4ha). The whole area is well protected by chain link fencing built over rubble foundation. At night the animals are kept in concrete cages with steel grills. The section forest officer who is in charge of the park and the keepers inspect the cages and the surrounding fence to ensure maximum security before releasing the animals inside the park. This is done daily and a register is maintained to record the details. The Assistant Wildlife Warden and the Wildlife Assistant also inspect the same at random. Once the animals are let loose inside the fenced areas, the workers engaged at the park will monitor their movements from outside. There will be a double gate system for entry and exit to the safari park which will give more protection to the visitors as well as the staff. During non-safari hours especially during the evening hours, laborers in charge of night shift will handle the security of the animals held in the shelter. They are also provided with Departmental sim cards and walkie-talkies in the field and as well as boats and safari buses to deal with contingency situations. An additional boat shall be purchased for strengthening the protection measures and eco tourism activities.

Water Supply System

The water supply to the Lion Safari Park is taken from the reservoir of Neyyar Dam. Round the clock drinking water facility is provided in each cubicle. While the animals are set free in the safari area, they can use the water hole inside the safari area. Every evening once the animal is inside the cage, the ponds are manually cleaned to fill fresh water.

Disposal of Solid Waste and Liquid Waste Sewages

The daily removal of excreta and leftover meat and bones from the cubicles are suitably disposed off in the garbage pit constructed outside the park premises for the waste disposal. The liquid waste from the cubicle is drained out through a drainage system into another pit outside the safari area.

Escape of Animals from Enclosures

The fencing of the Lion safari park is done at a height which is impossible for the Lions to jump over. However, since they are carnivorous animals, any event of escape shall be attended to instantly. To tackle such an event, the Lion Safari Park shall be equipped with tranquilizing guns and the staff handling the Lions shall be given training. Mobile rescue cages with squeeze facility shall be purchased for the same.

Monkey and Dog Menace

The possibilities of monkeys and dogs causing menace inside the Lion Safari Park are ruled out since the entire park is a fenced compound wherein these animals can't access.

Arrangement of Food in Case of Strike

The contract for supply of meat shall be made in advance. In case of failure to supply food by the contractor, meat will be procured locally out of the contingency fund available at the discretion of the Wildlife Warden, Thiruvananthapuram.

Snake Bite

In case of any casualties caused due to snake bites, immediate treatment can be availed from the hospital at Kattakkada which is the nearby town and later on at medical college, Trivandrum. The lack of Polyvalent Snake Antivenom in the store at the sanctuary headquarters should be rectified.

Fighting Among Animals

The chances of infighting among animals cannot be completely ruled out. Initially these animals shall be kept for few days in nearby cages for them to familiarize and recognize each other through sight and smell. Only after few days of such close physical proximity they shall be set free in the safari area. The safari area is divided into two with a comparatively smaller region being fenced. In case of any unfriendly behavior, such animal shall be isolated and kept for a while under observation.

Epidemics

The animals will be subjected to daily routine check up by the staff. Any kind of abnormalities, injuries, wounds, etc. shall be immediately brought into the attention of the Assistant Wildlife Warden, Neyyar and the Forest Veterinary Officer. The services of the Veterinary Doctor at Thiruvananthapuram Zoo shall be availed as and when necessary.

3. Acquisition, Birth, Death and Disposal of Animals

During the year under the report following acquisition, birth, death and disposal of animals in the Zoo took place.

Sl. No:	Name of Species	Sex				Remark
		M	F	U	T	
1.	Present Mammals					
	Lion (<i>Panthera leo</i>)		2		2	
2.	Death Mammals					
	Lion (<i>Panthera leo</i>)	1			1	Old age (22/10/2017)
3.	Acquisition					
	Nil					
4.	Disposal					
	Nil					

4. Human Resource, capacity building and e- governance:

SL.No:	CATEGORY	PRESENT STAFF(No.)
1	Wildlife Warden	1
2	Asst. Wildlife Warden	1
3	Wildlife Assistant	1
4	Forester	6
5	Forest Guard	12
6	Reserve Watcher	2
7	Clerk	1
8	Driver	2
9	Office Attendant	1
10	Part time sweeper	1
11	Boat Driver	2
12	Watcher cum cook(IB)	1

Capacity Building:

The officials and staff will be nominated regularly for the “Keepers Training” and “Zoo Management Training” organized by the Central Zoo Authority and Wildlife Institute of India. Exposure and hands on training will be provided to lower staff by sending them to other Zoos.

E- Governance:

The proper and effective management, periodical updates and easy retrieval of data shall be possible only with the effective utilization of computer facilities. The records of animals, food, etc. and all other matters pertaining to the Lion Safari Park shall be maintained in electronic format. The details of the Lion Safari Park shall be given in the website of Thiruvananthapuram Wildlife Division.

5. Education and Awareness

Education and awareness programmes are being conducted to sensitize the public about the need for protecting environment and the need for conserving species. Awareness programmes, more than 70 nature education camps are carried out regularly to school and college students during the last financial year 2016-17. The curriculum involved Nature awareness sessions, skill development, bird watching, trekking, etc. In addition to this special camp were conducted for Forestry students with the topic- Restraining and handling of wild animals. The Objective of camp is to promote each participant to become environmentally responsible and meticulous citizen of tomorrow. Other celebrations such as World Environment day, Vana Mahotsav and Wildlife week celebrations were also conducted. Awareness materials for nature education awareness such as brochures, CDs, pamphlets, leaflets, etc. shall be made available to the public.

Nature camps for LP/ UP/ HS School Students at Neyyar Lion Safari park



Bird watching/ Trekking session to Students



Nature awareness camp for Professional/ college students



Research

No research works has been carried out by the Forest Department till date. However permissions are given to students from different universities and colleges and other institutions to carry out research works. The youth hostel dormitory at Neyyar has a facility to accommodate 14 memmbers and the dormitory at Marakkunnam has an accommodation capacity of 40 memmbers, especially for the students and researchers.

6. Zoo Visitation

The Lion Safari Park is open to the visitors throughout the year with Monday being a holiday. Though the park has a regular visitor inflow, there is a peak inflow during festival season like Onam, Christmas, New Year and other public holidays. About 84,510 visitors, both Indian as well as Foreigners were visited last year in this park, the detailed discretion of visitation is given below.

Sl.No:	Visitors in Zoo/ Lion Safari Park	No. of visitors
1.	Indian(Adult)	69018
2.	Indian(Child)	13267
3.	Foreigner(Adult)	2094
4.	Foreigner(Child)	131
Grand Total		84,510

Visitor Amenities

There are two minibuses available for transporting the visitors from the information centre, Neyyar to the Lion Safari Park. The vehicles are specially designed to provide maximum security to the visitors who are taken inside the Safari Park to view the freely roaming animals. A boat is also provided for transporting the visitors from the information centre, Neyyar to the Lion Safari Park.

Present Ground Situation

The visitors are provided with facilities like canteen, toilets, rest room, etc. at the information centre, Neyyar. These facilities are provided at the sanctuary headquarters so as to avoid any kind of disturbance and negative impacts in and around the vicinity of the Lion Safari Park. The visitors on reaching the Information centre are taken to the Marakkunnam Island on boat. From there they board a specially built bus for the Lion

Safari. A trained guide accompanies the visitors in the bus and provides information regarding the animals and park to the visitors.

Visitors Getting Injured/ Visitors Falling Inside Enclosure

The chances of visitors getting injured and falling inside the enclosure is ruled out since they are moving inside the safari area in covered mini bus. They are not allowed to come out of the vehicle.

7. Zoo administration and Financial

Zoo Administration Section:

The Lion Safari Park comes under the direct administrative jurisdiction of the Wildlife Warden, Thiruvananthapuram. Day to day routine administration is being carried out by the Assistant Wildlife Warden, Neyyar Wildlife Sanctuary.

Finance:

The overall turnover is mainly generated from Visitations, which includes entry fair, safari park, boating, trekking, etc. The annual turnover of the zoo/ Lion safari park during the year 2016-'17 is around Rs. 94,16,050 .

8. Status of compliance of conditions stipulated by CZA

Inviting attention to the reference cited, the following details regarding the Lion Safari Park, Neyyar Dam, and Kerala are submitted as follows. Letter F. No. 19-186/93- CZA(136)(NS)/875/2016 dated 09.06.2016 of GOI, MOEF & CC, CZA, New Delhi.

SL. No.	Norm. No.	Condition Stipulated	Time period to comply	Remark
4. Animal Housing , display of animals and animal enclosures				
1	4.2	Newly constructed paths should have same gradient	Complied	

2	4.3	The animal houses of lions should have chain link mesh and roof top to be replaced with concrete slab.	-	
3	4.10	Signage should be in English and local language	Complied	
5.Upkeep and health care of animals				
4	5.3	Prophylactic vaccination and medicines are prescribed by local veterinarian should be carried out on regular basis as per schedule	Complied	Regularly done by Forest Veterinary Officer as per schedule
5	5.10	All records of the zoo should be maintained as per CZA prescribed formats	Complied	
12. Visitor Facilities				
6	12.1& 3	Arrangements should be made for free movement of person in wheel chair for wild animals at various enclosures and access civic facilities	Complied	
Other Observations				
7		Roads should be widened in Safari for Safari vehicles for free negotiations at curves.	Complied	
8		The hybrid lions displayed in the Lion Safari Park are all aged and unfit for the Safari. The Physically unfit lions should be not displayed.	Complied	As the Male hybrid lion died on 22-10-2017 (due to old age) and the other two hybrid lioness are only displaying.