

Overa-Aru Wildlife Sanctuary

INTRODUCTION

Nomenclature:

Overa-Aru Wildlife Sanctuary has derived its name from the two hutment areas of Overa-Aru falling in the lap of the sanctuary and along the two famous snow melted fresh water and perennial nallahs of Overa and Lidder meandering through the sanctuary. It is situated between gratitude of 33°55'0" to 34°20'0" N and 75°5'0" to 75°32'30" E.

Legal Status:

The wildlife protected areas of Overa (165.39 Sq. Km) and Aru (292.00 Sq. Km) totaling both 457.39 Sq. Km were initially declared as 'Reserves' before independence vide Cabinet Order No. 710-C of 1945(G) Dated 17.07.1945, keeping its rich potential for wildlife in view, was upgraded as 'Man and Biosphere Reserve' vide Govt. Order No. FST-20 of 1981 Dated 04.02.1981.

In order to provide full protection to its existing wildlife heritage, the area was given the status of a 'Wildlife Sanctuary' and was declared as 'Overa-Aru Wildlife Sanctuary' vide Govt. SRO No. 154 Dated 19.03.1987 under Endorsement No. FST/WL/SAN/Overa/97 Dated 18.03.1987.

Status of Settlement of Rights:

Tribal community of 'Gujjar' approximately 152 in Overa and 113 families in Aru are inhabiting in buffer areas of Overa and Aru villages of the sanctuary were residing inside before the area was notified as Wildlife Sanctuary. However, proclamation/notification has been made by the concerned Collector and the settlement of rights would be accomplished within the current financial year. I would be after the outcome of final notification, that the assistance from Ministry of Forests & Environment, Govt. of India will be sought to liquidate the rehabilitation process for the rehabilitation of the villagers.

Postal Address:

Range Officer, Incharge Overa-Aru WLS
Overa Pahalgam, Anantnag J&K, India

(or)

C/O Wildlife Warden, South Kashmir
Bijbehara Anantnag, J&K India

Flora:

Due to variation in altitude, aspect and soil, a diversity of vegetation is discernible in the protected area. The vegetation of the Overa-Aru Wildlife Sanctuary is mainly Fir (*Abies pindrow*) with Kail (*Pinus griffithi*) in the lower elevations near Nallas. On varied physical variations the following forest types found are as:

I) Riverian Vegetation: (1600-2300m ASL)

The most dominating tree species of the area is Kail (*Pinus griffithi*). The other species in association with this includes the broad leaved species of *Aesculus indica*, *Fraxinus hookeri*, *Parrotiopsis jacquementiana*, *Juglanos regia* dotted Kail is also interspersed towards the upper limits and on ill drained sites. The constituent of the underside include *Indogofera heterantha*, *Lonicera* species, *Viburnum*, *Skimmia laurel*, *Jasminium* species etc.

II) Coniferous Forests: (2200-3300 m ASL)

Fir (*Abies pindrow*) is the dominating species of this area and is also found in association with Spruce (*Picea smithiana*) at 2300m. Fir (*Abies pindrow*) gives way to *Abies spectables* in higher elevations. Kail (*Pinus griffithi*) is found mix on exposed slopes whereas along the upper trees Birch (*Betula utilis*) occurs along the upper reaches (at Lidderwath). The woodland also occupies some sides of different nallahs.

III) Alpine Scrubs and Pastures: (Beyond 3400m ASL)

This type of forests contains mostly of treeless pastures having scattered scrub vegetation. This area is mostly dominated by Birch (*Betula utilis*) near the tree line at Lidderwath Kolhaie. The area is also supported by *Juniperous recurva*, *Rhododeindron* species, *Viburnum* species, *Lonicera* species at different places with *Primula* at shady places.

The extensive alpine pastures above the tree line bear a luxuriant growth of perennial herbs and grasses. They are known as 'Margs'. The distribution of these pasture land is in upper reaches of Sikiwas, Lidderwath and in upper reaches of Chummnaii and Kolhaie. The dominated shrub species are *Myostotis* species, *Cynoglossum compounalutun* species and *Betuala utilis* are found dotted at some places.

Fauna:

Overa-Aru Wildlife Sanctuary as a unit is the home of many common, rear and endangered mammalian species which are listed as:

S.#	Name of Animal	Scientific Name
1)	Kashmiri Stag (Hangul)	<i>Cervus elaphus hangula</i>
2)	The Musk Deer	<i>Moschus moschiferus</i>
3)	The Serow	<i>Capricornis sumatraenis</i>
4)	The Himalayan Marmot	<i>Marmot himaliyana</i>
5)	The Himalayan Mouse-Hare	<i>Ochotona reylli</i>
6)	The Kashmiri Flying Squirrel	<i>Hylepated fimbriatus</i>

7)	The Himalayan Yellow Throated Martin	<i>Martes flavigula</i>
8)	The Brown Bear	<i>Ursus isabellinus</i>
9)	The Himalayan Black Bear	<i>Selenaractos thibetanus</i>
10)	The Red Fox	<i>Vulpus montana</i>
11)	The Jackal	<i>Canis aurcus</i>
12)	The Small Indian Mongoose	<i>Herpestes auropunctatus</i>
13)	The Leopard Cat	<i>Felis bengalensis</i>
14)	The Leopard	<i>Panthera pardus</i>
15)	Common Langur	<i>Presbytis entellus</i>
16)	The Rhesus Macaque	<i>Macaca mulata</i>

The area harbors a large number of birds (around 76 species) which belong to thirty one families. Some commonest among them are:

Avi Fauna

1)	The Black Eared Kite	<i>Milvus migrans</i>
2)	The Himalayan Griffon Vulture	<i>Gyps himalayansis</i>
3)	The White Backed Vulture	<i>Psedopus bengalensis</i>
4)	The Monal	<i>Lephphorus impeyanus</i>
5)	The Himalayan Snow Cock	<i>Tetragallus himalayansis</i>
6)	The Chucker	<i>Alectoris chakur</i>
7)	The Koklas	<i>Pucrsia macrolopha</i>
8)	The Blue Rock Pigeon	<i>Columba livia</i>
9)	The Himalayan Rufus Turtle dove	<i>Streptopelia orientalis</i>
10)	The Ring Dove	<i>S. decaota</i>
11)	The Red Turtle Dove	<i>S. tranqubarica</i>
12)	The Asiatic Cuckoo	<i>Cuculus canorus telephones</i>
13)	The Alpine Swift	<i>Apus melba melba</i>
14)	The Kashmir Roller	<i>Crocias gasrullus semenwi</i>
15)	The European Hoopoe	<i>Upopa epops epops</i>
16)	The Kashmiri Woodpecker	<i>Trybatus himalaynsis</i>
17)	The Common Swallow	<i>Hirunda rustica</i>
18)	The Rufus Backed Shrike	<i>Lanius schack</i>
19)	The Golden Oriole	<i>Oriolus. o. kunde</i>
20)	The Indian Myna	<i>Acridotheres tristis</i>
21)	The Himalayan Jungle Crow	<i>Corvus macrorhychos</i>
22)	The Large Spotted Nutcracker	<i>Nucifrage muhipunctata</i>
23)	The White Checked Bulbul	<i>Pycnonotus leucogenus</i>
24)	The Streaked Laughing Thrush	<i>Trocralopterm linnactum</i>
25)	The Kashmir Wren	<i>Troglodyles t. neglectus</i>
26)	The Grey Tit	<i>Parus major cahmiriensis</i>
27)	The Kashmir House Sparrow	<i>Passere domesticus</i>

Management Objectives

- To create conditions congenial for upliftment of the habitat in order to ensure the balanced ecosystem, besides implementation of scientific conservation measures for wildlife habitat.
- To identify the importance of the area as it is linked with Dachhigam by carrier forest and falls in the distribution range of the threatened Kashmiri Deer (Hangul).
- To tabulate the records of all renewable and non-renewable resources of the area in order to monitor the population fluctuation trends from time to time of rare and endangered species of the area.
- To develop the wildlife rich area so as to restore the buffer and fringe zones by normal migration.
- To develop the area as a nucleus of faunal activity, to attract the attention of conservationists, naturalists, ecologists, ornithologists besides tourists.
- To eradicate all anthropogenic activities which had degraded or deteriorated the area in past and to keep a proper check for containing of these activities.
- To ensure proper drinking and irrigation facilities to the inhabitants living in and around Overa village through Overa Nallah and to Aru village through Lidder Nallah.
- To inculcate a knowledge of wildlife conservation among the masses in general and among the local villagers residing nearby the sanctuary in particular.
- To reduce the flood and soil erosion hazards occurring from time to time due to habitat degradation.
- To involve the participation of the NGOs in various development works, which will help to protect and safeguard the Overa-Aru Wildlife Sanctuary.

Development of National Parks and Sanctuaries

I) Demarcation of Boundaries / GIS Mapping:

Demarcation process can be properly done through GIS Mapping and with the help of National Remote Sensing Institute (NRSI) Hyderabad and with local Forest Department. All the protected areas were once part of the Forest, Parks and Gardens Department. They were handed over to J&K Wildlife Protection Department from time to time by notifying the areas as Wildlife Sanctuaries, National Parks, Conservation Reserves or Biosphere Reserves, till year 1987. The settlement of rights is yet to be processed in many areas. Therefore the delineation of boundaries is a grave issue, which need to be resolved at earliest through mutual efforts of Forest, Revenue and other authorities for the demarcation of the protected area boundaries. Demarcated protected areas will enable the department to check the magnitude of management practices beneficial for the survival of the wild animals and their dilapidated habitat. This will also help the department to eliminate the menace of encroachment, check free range movement of wild animals and confine Man-Animal Conflicts.

The process of delineation of protected area boundaries shall be made operational through GIS Mapping with joint efforts of Forest Department and NRSI, Hyderabad to update the demarcation records enabling the department to see the quantum of habitat shrinkage through encroachments.

Under this dispense the boundary demarcation will be carried out by erecting concrete cement pillars depicting name, date of demarcation, demarcation code, department emblem etc. by chain link mesh along the actual demarcated area of the protected areas, so that impact in terms of biotic interference and menace of grazing will be minimized and besides eradication of illegal encroachments will become easier. At certain places protected areas and their boundaries can be demarcated by raising barbed wire fencing on Rubenia fence post on temporary basis.

II) Habitat Restoration:

Wildlife protected areas are always under constant thrust through anthropogenic and natural calamities. Reclamation of wildlife protected areas, illegal harvesting of medicinal plants, tree felling, weed infestation, over grazing, diversion of water channels for agricultural practices, fire hazards are some exceptions, whereas natural vagaries in terms of floods, natural fires, soil erosion etc. engulf large chunk of wildlife habitat and take heavy toll of wild animals too.

The mitigative measures are to be ensured to provide a congenial habitat to these wild denizens where they can thrive in tranquility for their survival. Priority has been given to such schemes, which will protect their habitat from further degradation and will provide enumerable benefits like forage, water and protection from poachers etc.

The most vulnerable areas where wild animals can approach human settlements or become easy victims of poachers have been proposed to be fenced up by raising chain link fencing and by raising barriers with barbed wire fencing.

During pinch periods in early winter animals invade crop-fields and damage orchard trees, beehive shelves or inflict heavy injuries to the farmers and fall easy victims to human wrath. Proposal has been emphasized to develop the heavily denuded areas by way of fruit bearing plants, develop pasture nurseries and to adopt silvipasture practices in waste lands, so that wild animal movement can be restricted within the confines of the protected areas.

Over grazing renders area tree less and prone to soil erosion causing floods and soil loses its water retaining capacity. To stop the wastage of water and to retain the water for wild animals exclusively for land irrigation purpose and for drinking of the wild animals during pinch period, water harvesting structures and gully plugging in dry masonry has been given priority.

Sometimes unwanted herbs, shrubs do prevent other nutritious plant species from further growth and unwanted spread of such plant species are hazardous for the whole habitat, their dweeding must be ensured so that other endemic nutritious plant species will grow for wild animals.

Weather calamities perish many wild species or sometimes snowfall take heavy toll of wild animals. Under such circumstances, shelter sheds are very useful to provide relief to these wild animals. Sometimes field functionaries faces lot of difficulties due to inaccessible terrain, inside protected areas. Need it to create inspection paths enabling the field staff to perform their field duties, field biologists to conduct research work in inaccessible work areas and to help wild animals free range movement inside protected areas.

III) Ecotourism:

Tourism sector is the backbone of the state's economy and is inevitable to neglect, as it helps to boost up state's economy besides creating general awareness among the common masses regarding the bounties of nature including flora & fauna and its protection, preservation and propagation. But unfortunately tourism has been dealt from engineering point of view while creating the tourism related infrastructure which resulted in the loss of habitat by way of vegetative degradation due to mushrooming of concrete structures in the form of five star hotels, shopping malls and by creating a mess of metallic roads within the health resorts particularly in protected areas.

Now the concept of Ecotourism in the protected areas is a healthy sign which will not only provide the facilities to the tourists to boost up the tourism sector but will also protect the natural habitats from ecological degradations.

IV) Fire Protection Measures:

Induced fire is an essential wildlife management tool to enable new grasses and legumes to re-grow but accidental fires caused by lightning or burning of charcoal inside wildlife protected areas are engulfing large chunk of tree canopy and besides taking heavy toll of wild animals. These fire incidents breakout due to the presence of dry grass and dead wood inside the protected areas, as the dry stuff receives fire very easily.

Maintenance of Fire-Lines at important places by removing dead stuff, coarse grasses and by making fire-lines will minimize the fire incidents. Timely preventive measure are possible only if deployment of skilled labours in the form of 'Fire Squads' are engaged during apprehensive periods those too from adjacent villages, so that before fire breakout, it could easily be detected and blown out accordingly. The Fire Squad is to be properly equipped with latest fire extinguishment tools like fire proof jackets, shovels, helmets, jigsaws etc.

Watch towers also play an important role for easily scanning a maximum area in a glimpse, detecting fire incidents, but on the other hand, they also help in observation of wild animals, anti-poaching, anti-grazing activities and help field biologists to monitor the activities of the wild animals.

V) Rescue, Rehabilitation and Health Care:

All protected areas of the valley exist in close proximity with the village hutments. Natural calamities like heavy snowfall, incessant rains, floods, heavy biotic interference or sometime scarcity of food and forage etc force the wild animals to approach the crop fields and invade human settlement. By doing so animals render heavy damage to their crop fields, orchards and livestock and inflict heavy injuries to the human beings too, who sometimes succumb due to injuries. In retaliation, the angry mobs also kill many animals and inflict heavy injuries to them. These animals are rescued by the department and rehabilitated accordingly. The animals that usually come under this category are Black Bears, Leopards, their cubs, Kashmiri Stag (Hangul), Porcupine, Serow and Musk Deer and Barking Deer.

The department had launched a programme to establish Rescue and Rehabilitation Centers in each wildlife protected area so that animals will be treated by local veterinarians', field staff and shall accordingly be released in their respective protected areas. These animals are to be rescued from far off areas and that too in trauma conditions, their easy transportation without causing further concussions, is possible if a rescue van is available with the department. Priority has also been given to purchase a rescue van including its fuel emoluments.

It becomes very difficult for field staff to trap any injured animal manually without tools/devices as animals sometimes render heavy casualties to the field staff deployed for the job. To avert such incidents and without causing more distress to the wild animals, proper trapping/tranquilizing tools are essential in operations.

Animals rescued need rearing, carriage, treatment and engagement of additional, skilled Animal Keepers becomes essential constituent of Rescue and Rehabilitation Programme. These rescued animals are sometime rescued from far off areas and outside protected area need private transportation. Expenditure on this account has been emphasized in the action plan. Proper provision for vaccination, medicine, feed and due publicity regarding vaccination camps, animal handling, precautionary measures to be taken needed to be displayed through print and electronic media had been taken care in the Management Action Plan.

VI) Anti-Poaching Operations:

Wild animals are subjected to mass hunting for lust of elite classes but with the uproar to conserve the wildlife and their habitat for the survival of other species; a complete arrest has been forced on the killing and poaching of these wild creatures. People are still desirous to vivify the old trend of shooting wild animals. But with the inaction of the J&K Wildlife Protection Act 1978 amended up to 2002, a blanket ban has been imposed on the killing of wild animals.

The present turmoil of the valley had silenced the guns of trigger – happy people and the dedication of vigilant field staff had emasculated the clandestine designs of poachers and currently poaching incidents are reportedly ‘Nil’. However, precautionary measures are still to be adopted to eliminate the menace of wild animal killings.

The additional skilled informers are to be engaged in suspected areas, on whose tipoff precautionary measures would be taken in anticipation to curtail such acts.

Many poachers have been apprehended in the past, whose cases are pending at various courts for final outcome. Hiring of litigates to fight these cases on behalf of the department has been given priority in the MAP so that culprits are brought to the book.

The importance and value of wild animals and their wildlife heritage need proper dissemination through electronic and print media, so that the poaching incidents are minimized and a harmonial attitude is developed amongst general masses towards wildlife. Anti-poaching activities and Anti-grazing Camps needed to be organized in adjacent villages of protected area.

VII) Settlement of Man-Animal Conflicts, Compensation for Damage to Human Beings / Livestock / Crops:

Inclement weather conditions, incessant rains, floods, scarcity of food material, over grazing in wildlife habitats compel the wild animals to search new unsafe destinations and human settlements. They invade crop-fields, damage orchards, break open beehive shelves etc on one hand but on the other hand inflict heavy damages to human life that sometimes succumb to the injuries. They become also engaged to depredate heavily on their livestock renders irreparable loss to the villagers. People in retaliation kill these animals and sometimes animals sustain heavy injuries. If such menace of Man-Animal Conflicts escalates annually their survival will fall in jeopardy. A provision has been drafted to bring a congenial and harmonial relationship between the two communities so that crops, orchards, livestock and human killings and injuries to them will be mitigated properly.

Provision for awareness to prevent losses and to minimize the damage caused to the wild animals has been highlighted in the MAP.

Veterinary Health Camps in the adjacent pockets of the protected areas will be organized by involving all people having adjacent to sanctuary and from veterinary

and animal husbandry department to check the diseased animals, vaccinate them properly and inoculation of valuable medicine to get rid both the animal communities from sporadic diseases. Mobile camps will also be organized inside the protected area, to vaccinate and treat the livestock accompanying the tribal people.

VIII) Strengthening of Infrastructure and Development:

The field staff deployed to exercise the anti-poaching, anti-grazing activities and to execute wildlife management practices inside and outside the protected areas are facing the hard crutches by withstanding with the hostile climatic conditions. They have to trek vast and inaccessible areas during the day time and to patrol the area during night hours also. The basic infrastructure facilities are wanting and demand has been highlighted in the MAP to overcome such problems of accommodation.

During summer months, field staff is proposed to render their duties in alpine areas under harsh conditions; provision for purchase of polyfab barracks has been kept to accommodate them under hostile conditions. The existing infrastructure for the deployed staff is old and that too in dilapidated conditions, need immediate repair and furniture for old and new accommodations have been emphasized in the MAP. Field staff has to approach vast areas; provision for purchase of motor bikes has also been given preference to ease their day-t- day field duties.

Compilation of field data, preparation of Action Plans, census and survey reports and for day to day office work, provision for establishment of Computer Lab has been reflected in the MAP. The safety of the field functionaries has been emphasized in the MAP so that their health care and insurance schemes are covered properly.

IX) People Participation, Education Activities / Publicity and Awareness:

Wildlife management conservation efforts can not yield prolific results unless general masses, stake holders, people involved in better management programmes, Panchayat members, common folk, school going students are not properly educated about the importance of wildlife and their habitat and the interdependence of one another for the survival of both the communities is essential. Their values of aesthetic, recreation, medicinal and ecological for the human beings needed to be inculcated among the stake holders on priority. Setting up of a visitors center and nature shop each in the protected areas will help the visitors to get acquainted about the wildlife heritage of the area with the same Eco Clubs would be established to achieve prolific results in the wildlife conservation efforts.

The education and awareness is the only tool by which wildlife conservation messages can be imparted through celebration of conservation programmes, debates, quizzes, seminars, folk lore, dance programmes, conservation marches etc are essential to be organized for the same.

Many kinds of hoardings, signage, pamphlets and banners will be prepared to acquaint people about the ethos of wildlife and conservation. Audio-Visual aids needed to be displayed in schools, community halls etc. Electronic and print media is to be completely involved in dissemination of wildlife conservation messages etc.

Documentary filming of the wildlife heritage of the protected area needed to be prepared annually so that people become acquainted about the flora, fauna and conservation efforts in force inside the sanctuary.

X) Monitoring and Evaluation Jointly with Research Institutes and Reputed NGOs:

All the wildlife management practices will not yield any prolific results unless and until research impacts are not embedded in such practices. Research aspects on any issue will be conducted in consultation with experts of national and international repute. Enthusiastic and dedicated, volunteers and NGOs will also be involved in research activities to make it more accurate and result oriented.

The research programmes will be conducted to check the population fluctuation of flagship of wildlife species like Kashmir Stag (Hangul), Musk Deer and Brown Bear etc who are at the verge of extinction. Their behavioral study, adaptation to the challenging environment, incursion of biotic interference and the root cause for population decline are some of the basic aspects to be ascertained through research programmes.

XI) Preparation of Management Action Plan and Annual Plan of Operations:

Inputs of various researches and survey programmes are supposed to be tabulated and updated so that basic wildlife management tools are implemented for better results. These facts and figures are compiled before any management plan is formulated. Comprehensive management plan is pivotal for any protected area so that knowledge gathered on ground and their redressal is accordingly dealt. Expenditure on preparation of management plan and action plan operations has been emphasized in the management plan.

XII) Census and Survey including Purchase of Survey Equipments:

The base line data of a particular animal in a particular wildlife habitat is obtained only after cohesive census and survey operations are carried out in and outside protective areas. The census figures of most important and highly endangered wild animals like Musk Deer, Black Bear, Brown Bear, Leopards etc would be obtained only after conducting frequent census and survey operations in and outside protected areas. These census figures well revealed population fluctuations and precautionary measures will according be implemented to safeguard their survival.

Some other areas having potential to harbor wildlife will also be surveyed and included in the wildlife protected area network.

XIII) Office Contingency etc:

The protected areas are being monitored from the central office and to run such offices, meager allocation has been reflected in the Management Action Plan to meet their day-to-day office expenses, stationery, transportation, documentation etc.

Major Problems in the Area (Overa-Aru WLS)

The sanctuary forms a part of corridor for famous Kashmiri Red Deer i.e. Hangul as it falls adjacent to the Dachhigam National Park. With the onset of summer months enumerable nomads especially from Gujjar and Bakerwal communities invade the upland glades and merges with their livestock. They indulge in lopping of trees, woodcutting, its conversion into charcoal and on the other hand their livestock due to overgrazing heavily denude the top soil exposed it for soil runoff. Depletion of plants important for wild animals render soil infertile, confines plant succession and finally soil runoff causes flooding situations in the lower plains. Overgrazing reduces the carrying capacity of the area and competition for grazing between endemic wild animals and livestock forced wild animals to approach new unwanted and unsafe destinations for forage.

However, cohesive efforts are on to formulate a grazing policy at state level so that wild animals and their abodes are well protected from the wrath of nomadic pressure.

Diseases:

During summer months the area remain always infested with the livestock of nomads, apprehension is the transmission of the communicable diseases like *Foot and Mouth* diseases, *Anthrax* and *Rinderpest* etc as these animals sometimes feed in close association with each other. The area is already aboding highly endangered (Schedule-I) wildlife species i.e. *Hangul*, *Musk Deer* etc. Precautionary measures are always to be adopted by the department for development of veterinary dispensary units, application of vaccination to the village livestock etc, with immediate rescue and rehabilitation of the wild animals who suffer from some chronic disease or from natural calamity are on priority with the department.

Encroachment:

The sanctuary is always experiencing constant threat of encroachment due to outburst of population. Lust for reclamation had shrunk the protected area, resulted in restricting the movement of wild animals within the sanctuary. Conversion of the areas for agricultural practices had scrimped the area at many places, but after declaring the area as 'Wildlife Sanctuary' notable services has been rendered by the field staff to evict encroachments and to contain encroachment pressure on protected area.

Forest Fires:

Induced forest fires as wildlife management tool play an important role to allow fresh grass, legumes etc to grow, but sometimes heavy fires occurs due to nomads and local villagers while collecting fuel wood, making charcoal during winter periods, such unlawful activities engulf major chunk of standing forest crop. Precautionary measures like development of fire-lines, extraction of dry stuff, eradication of unwanted weeds etc and purchasing of fire extinguishment / firefighting tools have been given priority in the plan.

Illegal Woodcutting:

A large number of village hutments do exist along the periphery of the wildlife sanctuary. The protected area remain always under the thrust of biotic interference in terms of woodcutting, tree lopping and felling etc. All these activities are detrimental for the survival of the wildlife heritage of the area. Combat operations are launched against the persons

responsible for illegal timber trading, fuel wood collection etc. Vigilant field staff desist such activities inside the protected area.

Poaching:

Hunting and illicit poaching had created major hazards in the last decade by depleting the existing wildlife population of the endemic species like the Kashmiri Hangul, Black & Brown Bears, Musk Deer besides affecting the other pheasant species like the Chakour, Koklas and Monal. But the restrictions imposed naturally due to turmoil during the present decade had almost contained the movement of the hunters inside the sanctuary and a viable population is being observed within the sanctuary.

Grazing:

The nomadic grazers and local villagers flock in thousands on upland merges of Overa-Aru WLS along with their livestock. The uncontrolled overgrazing deplete the vegetative cover of the soil, exposing the solid to runoff during incessant rains causing depletion of vegetative cover and flooding like situations in the water bodies of the protected area. Loss of top soil leaves reduction in plant growth less availability of fodder for wild denizens like Hangul, Musk Deer, Black Bear, Brown Bear figuring among Schedule-I animals.

In order to obviate the menace of grazing a rehabilitation programme has been proposed to provide alternate grazing ground to minimize their impact on the vegetative cover of the area. Nomads and the villagers are also being benefited through pasture nurseries and artificial feed provided to them during pinch period.

Census:

Census operations were conducted by the field functionaries in collaboration with the experts from national and international repute or with NGOs/volunteers on annual basis. Important endangered wildlife species endemic to the protected area were censused species like Kashmiri Dee (Hangul), Black/Brown Bear & Musk Deer were censused through direct or indirect sightings/evidences. Detail of the census figures conducted so far are as:

Sr. No.	Name of the Animal	Scheduled Status	No. of Animals Sighted (upto Mar 2006)	Remarks
01	Leopard	I	03	Next schedule for conducting of census awaited from higher authorities.
02	Black Bear	I	03	
03	Common Langur	II	10	
04	Monkey	II	30	
05	Monal	I (III)	03	
06	Koklas	IV	03	
07	Chakore	IV	Groups	

Staff Position:

S. #	Designation	Overa-Aru WLS
01)	Range Officer – I	---
02)	Range Officer – II	---
03)	Forester	01 (I/C Range Officer)
04)	Dy. Foresters	01 (I/C Range Officer)
05)	Guards	15
06)	Watchers	02
07)	Orderlies	01
08)	Field Chowkidar	01
09)	Helpers	06
Total		27

Wildlife Trained Staff:

S. #	Designation	No. of Staff
01)	Range Officer - I	---
02)	Range Officer - II	---
03)	Forester	01
04)	Dy. Foresters	01
05)	Guards	04
Total		06

Entry Fee Collected from last Five Years:

Name of the Area	2008-09	2009-10	2010-11	2011-12	2012-13
Overa-Aru WLS	199621	254760	390769	325525	992399

Area of Aru part of Overa-Aru Wildlife Sanctuary was taken over from the J&K Forest Department in 2003 and the tourist activities were at embryonic stage. Since, now the Department of Wildlife Protection, J&K had made cohesive efforts to achieve prolific results under the theme of 'Ecotourism'. Tourists are especially visiting famous hill resort of Pahalgam, holy shrine of Amarnath Cave etc do through the Aru area of the Sanctuary to see wildlife heritage therein. The Ecotourism in the area is boosting year after year, but the basic infrastructure facilities for the arriving guests are nominal for which measures are on.

Number of Tourists Visiting the Sanctuary:

Visitors From	2012-13
Local/Indian	38493
Foreign	600
Student	37
Total	39130

Shooting of Films : Documentary Films 02 Nos.**Funds Provided during last Five Years:**

State Plan					Centrally Sponsored Scheme				
2008-09	2009-10	2010-11	2011-12	2012-13	2008-09	2009-10	2010-11	2011-12	2012-13
52.50 Lac	Nil	37.39 Lac	01.36 Lac	04.35 Lac	09.38 Lac	24.84 Lac	25.00 Lac	24.04 Lac	30.59 Lac

Funds Provided for the Sanctuary under Other Schemes : 52.50 Lac (CAMPA)

Status of Survey and Demarcation of the Boundaries:

The Overa-Aru Wildlife Sanctuary is delineated naturally by rock cliffs, gushing nallahs, glaciated peaks and apart from human settlements by metallic roads. All these natural and manmade barriers automatically demarcate its boundaries. However, the process of boundary demarcation as per actual Notification is under way to facilitate the eviction of encroachment and other management practices.

Fire Incident/Fires (area in hectares):

<u>Name of WLS</u>	<u>2008-09</u>	<u>2009-10</u>	<u>2010-11</u>	<u>2011-12</u>	<u>2012-13</u>
Overa-Aru WLS	15.00	Nil	12.00	03.00	Nil

Wireless Communication System:

The wireless system provided to the department of Wildlife Protection by sister concerned department i.e. J&K Forest Protection Force is now obsolete due to the coming up of Cellular Phones and are therefore defunct because the main operating system was under the control of Forest Protection Force which is defunct. Obviously the system is to be replaced by Cellular Phones.

Number of Ranges/Blocks/Beats:

- I) Ranges : 01
- II) Blocks : 03
- III) Beats : 05

