

CHAPTER 1

INTRODUCTION OF THE AREA

1.1 Name, Location, Constitution & Extent :

Nugu Wildlife Sanctuary is situated in Heggadadevanakote Taluk of Mysore district and comprises of Lakshmanapura State Forest and adjacent revenue lands this sanctuary is situated north of Bandipur National Park. This small sanctuary with an area of 30.32 Sq.Km. has not yet been opened for tourist. The backwaters of Nugu dam forms the part of the Nugu Wildlife Sanctuary and lies on the western side of the sanctuary. On the south west side, the area touches Alaganchi State Forest which comes under Bandipur National Park (Project Tiger Area). During the summer when the backwater recedes, the foreshore area becomes temporary vast grass land due to the availability of fodder and water, the Elephants migrate from the adjoining area and congregate on the Foreshore area.

1.2 Approach and Access:

The sanctuary is situated at about 60 Kms. from Mysore City and 30 Kms. from Nanjanagud town. The sanctuary has got approach by all weather road (black top road) from Mysore. The nearest railway station is at Nanjanagud which is at 30 Kms. from the sanctuary. Airport is at Bangalore which is at about 210 Kms. from Nugu Wildlife Sanctuary. Nearest town is Sargur which is 10 Kms. from the sanctuary. The sanctuary lies in the latitudinal range $11^{\circ} 52' 47''$ to $11^{\circ} 56' 51''$ north and longitudinal range $76^{\circ} 26' 10''$ to $76^{\circ} 28' 37''$ east.

1.3 Statement of Significance

Nugu (30.32 Sq.Km.) was declared as Wildlife Sanctuary on 17th June 1974. Being situated just north of the Bandipur National Park, the flora of the two areas is similar, except that the Nugu area is still recovering from earlier degradation. Much of the northwestern part of the Sanctuary is occupied by the Nugu Reservoir.

During the year 2003-2004 the area of Nugu Wildlife Sanctuary has been added to Niligiri Biosphere Reserve.

The Sanctuary is a significance component of 5500 Sq.km. Niligiri Biosphere Reserve which is one of the largest conservation areas in India. Its supports a very high density of elephant population it significant number of adult tuskers.

CHAPTER 2

Background information and attributes

2.1 Boundaries

The area of the Sanctuary is 30.32 Sq.Km. the sanctuary description is as under

North : Starting at a point where the Sargur – Hediya road touches the North West corner of Lakshmanpur State Forest and runs north west along the road and passes along the bottom line of Mallur betta and by the side of P.W.D. lodges and runs along the road and crosses the channel and touches the point at the northern end of the water spread.

West: The line runs along the ridge of the hill back and crosses the river Nugu and touches the Lakshmanapura State Forest line at Laksoge, and runs south along the State Forest line parallel to Alagarchi State Forest line on the other bank of river Nugu

South: The line turns East and North along the State Forest line and touches Hadnur village

East: The line runs towards north along the State Forest line and touches the starting point.

2.2 Geology, rock and soil :

The Soil is red loamy with boulders. The underlying rocks are of metamorphic formation and consists of gneiss, quartzite and hornblende schist.

2.3 Terrain

Except mullurgudda area the entire sanctuary has a terrain of gentle slope. Drainage is towards west with western aspect. The altitude varies from 742m to 782m.

2.4 Climate

The climate is generally tropic.

- (a) **Rainfall:** The area receives rainfall both from south west and north east monsoons. The southwest monsoon commences from the first week of June and continues upto September. The north east monsoon commences from the second week of October and continues up to November end. The average rainfall in the area is about 1000mm.
- (b) **Winds:-** Two seasonal winds blow over the sanctuary. They are:
- (i) South –Westerly wind between June and September.
 - (ii) North-Easterly wind between September and December.
- (c) **Temperature:** The temperature ranges from about 14⁰ to 38⁰
- Nugu Sanctuary has got moderate climate with 3 seasons.
- Summer – March to May
- Monsoon – June to October
- Winter – November to February.

2.5 Water Sources;

The sanctuary has good water sources in the form of perennial river and water tanks. Nugu Reservoir at Beerwal is the water sources during the pinch period.

2.6 Range of wildlife, Status distribution, and habitat

2.6.1 Vegetation

Forest type of the sanctuary include Southern Mixed Deciduous Forest 5A/C3 (Champion and Seth classification) and dry deciduous Scrub Forest (5/DSI). Before the declaration of the sanctuary, because of the intense biotic pressure, like cattle grazing and removal of firewood by the villagers; the forest is in degraded condition and is now slowly healing up. Profuse copies growth of *Anogeissus latifolia*, *Terminalia paniculata* etc., can be seen. The important species found here are;

1	Anogeissus latifolia	12	Diospyos spp
2	Enblica officinalis	13	Gmelina arborea
3	Chloroxylon swietenia	14	Zizyphas spp.
4	Terminalia paniculata	15	Terminalia bellerica
5	Mitragyana parviflora	16	Pterocarpus marsupium
6	Ficus benghalensis	17	Cassia fistula
7	Ficus mysorensis	18	Butea monosperma
8	Santalum album	19	Acacia sundra
9	Dendrocalamus strictus	20	Albezia amara
10	Teminalia tomentosa	21	Albezia lebeck
11	Acacia nilotica		

The weeds Lantana and Eupatorium are spreading in the sanctuary.

2.6.2 Animals

The important Fauna found in the sanctuary are;

Mammals:

Elephant	Elephas maximus
Wild Boar	Sus scrofa
Jungle Cat	Felis chaus
Small Indian Civet	Viverricula indica
Barking Deer	Muntiacs muntjak
Spotted Deer	Axix axis
Black napped Hare	Lepes nigricallis
Striped Hyna	Hyaena hyaena
Jackal	Canis aureus
Leopard	Panthera pardes
Tiger	Panthera tigris
Sambar	Cervas unicolor
Sloth Bear	Melursus ursinus
Common Otter	Lutra lutra
Bonnet Macaque	Macaca radiata
Indian porcupine	Hystrix indica
Pengolins	Manis crassicaudata
Common mongoose	Herpestes edwardsi
Wild dog	Cuon alpinus

Reptiles:-

Marsh Crocodile, Monitor Lizard, Cobra, Rat Snake etc.,

Avi fauna:

The area is also rich in Avifauna important birds found are;

Peafowl	Grey Jungle Fowl
Partridges	Owlets
Parakeets	Mynas
Black drongo	India rind dove
Eagrets	Painted stork
Brahminy kite	Indian Loriket Koel
Grey headed Fishing Eagle	Bee
	Cater etc.,

CHAPTER 3
HISTORY OF MANAGEMENT AND
PRESENT

3.1 General

3.2 Timber Operations including bamboo and Firewood harvest

3.2.1 Silvicultural systems and tending operations

No tending operations in the sanctuary

3.2.2 Evenaged systems and unevenaged systems NIL

3.2.3 Bamboo Working NIL

3.2.4 Firewood harvest and collection NIL

3.3 Non wood forest produce (NWP) collection NIL

3.4 Leases

No rights and leases area existing in the sanctuary

3.5 Other programmes and activities NIL

3.6 Forest Protection

3.6.1. Legal Status

The sanctuary has been declared vide notification No. AFD 54. FWL.74 dated 17-6-1974 of Government of Karnataka under Wildlife (Protection) Act 1972.

3.6.2 Hunting

With the adoption of the Wildlife (Protection) Act 1972, hunting is totally banned in the Sanctuary.

3.6.3 Poaching and other Illegal activities

3.6.3.1 Poaching

The poaching problems in the sanctuary is not severe. Since all the protection measures and rigid patrolling was being done all over the sanctuary.

3.6.3.2 Illegal cutting of trees

Illicit felling is one of the major decimating factors in the sanctuary. The people living close to the sanctuary often indulge in illicit felling of trees for their fuel wood requirement and other bonafide needs. However, all the precautionary measures have been initiated to control the illicit cutting of trees and now the problem is not severe.

3.6.3.3. Illegal removal of NWP

The Sanctuary area adjacent to Bandipur National Park and Private lands of H.D.Kote Taluk. Collection of non wood forest produce has been banned in the sanctuary.

3.6.4 Domestic livestock grazing

The population of live stock is high in the surrounding villages of Nugu Wildlife sanctuary except on the western side, there are 25 villages have been situated adjacent to the sanctuary which a Livestock population of around 10000. The villagers illicitly allow their cattle to the sanctuary for grazing. This illicit cattle grazing depletes the fodder wealth resulting in the reduction of carrying capacity of the sanctuary in terms of herbivores and also transmit the communicable disease to the wildlife.

3.6.5 Wild Fires

Since the sanctuary is comprised of dry mixed deciduous Forest & Dry Scrub Forest with lot of grass the area is vulnerable for fire hazard during summer. Hence fire protection work like clearing and burning of Fire line along the road side and other vulnerable places has to be taken up well in advance during summer. Fire petrol watchers needs to be engaged to put off any accidental Fire.

3.6.6 Insect attacks and pathological problems NIL

3.6.7 Wildlife Health

There are 25 villages have been situated around the sanctuary. The cattle and other livestock population is about 10000. All these cattle are placed

in villages with in ½ Km to 5 Km from the boundary of the sanctuary. As they are closely placed they depend on the sanctuary for grazing to the larger extent thereby exposing the sanctuary to varies communicable diseases. Hence, the following steps are being practiced to avoid outbreak of infections diseases.

1. Vaccination programme against infectious and contagious diseases are charted out on regular basis so as to create immunity belt

3.6.8 Interagency Programmes and Problems

NIL

3.7 Tourism

Nugu Wildlife Sanctuary situated adjacent to Bandipur National Park and in Backwaters areas of Nugu Reservoir of H.D.Kote Taluk. Ecotourism has not been developed in the sanctuary. However, there is ample scope for the development of Ecotourism. The undulating terrain with rocky hillocks of Mullurugudda area makes the place a paradise for nature lovers, adventurers, and truckers. The Lakshmanapura Reserve forest of the sanctuary is also having scope for development of Ecotourism. Since, it has been fallen in backwaters of the Nugu Reservoir.

3.8 Research, Monitoring and training

3.8.1 Research and monitoring

Earlier Research and monitoring activities have not been taken up within the sanctuary . But NGOs / Researchers have taken up research on Man- animal conflict in adjacent areas of the sanctuary.

3.8.2 Training

The field staff may be given adequate training in effective management of the sanctuary.

3.9 Wildlife conservation strategies and their evaluation

Wildlife population in the sanctuary is fairly good. The sanctuary is close to Bandipur Sanctuary and almost touches at the south west corner to Alaganchi State Forest of Bandipur National Park. Hence larger animals like elephants keeps migrating from Bandipur National Park to Nugu Sanctuary and

vice versa. Availability of abundant water during summer also induce animals to migrate to Nugu Sanctuary. Elephant proof trench have been dug partly along the south eastern boundary. During the year 2010-11 Solar fencing all along the boundary of the sanctuary has been done to control the elephant depredation and also to contain the elephants within the sanctuary and prevent elephants entering the cultivated lands. Regular maintenance works to these EPT and Solar Fencing needed.

3.10 Administrative set up

The sanctuary is the under the administrative control of Karnataka Forest Department. The Deputy Conservator of Forests, Wildlife Division, Mysore is responsible for all the operations in the sanctuary including forest management and research. He is functioning under the administrative control of the Principal Chief Conservator of Forests (Wildlife), Bangalore.

The Deputy Conservator of Forests, Wildlife Division, Mysore with head quarters at Mysore and he is assisted by One Range Forest Officer, One Forester, Three Forest Guards,

3.11 Communication

The sanctuary is accessible throughout the year. Static Wireless station has been established the Head quarters in Hosabeerwal. 4 Walkie Talkie have been provided to staff for protection works. The sanctuary had very good network of road communication. However, additional walkie talkies have been required to enhance and strengthen the communication network.

3.12 Summary of threats to wildlife

The threats to the wildlife in the sanctuary have been indicated in the earlier. However, they are enumerated as below.

1. Smuggling of firewood
2. Cattle Grazing
3. Agricultural land on the periphery of the Sanctuary
4. Man & Animal conflict
5. Poaching

CHAPTER 4

THE PROTECTED AREA AND THE INTERFACE LAND USE SITUATION

4.1 The Existing situation in the zone of influence

Except on the western side, the sanctuary is surrounded by about 25 villages. With a population of about 20,000 and live stock population of about 15,000.

Cultivated lands are abutting the northern, eastern and southern boundaries. About 50 acres of private land between the sanctuary and back waters of Nugu Dam. Hitherto the villagers adjacent to the sanctuary were dependent on this Forest for their fire wood and fodder requirement. Now after declaration of the sanctuary, they are deprived of this facility. However illicit collection of firewood and grazing on the fringes of the sanctuary are not uncommon. Agriculture is the main occupation of the villagers. They grow mostly dry crops like Ragi, Millet, Horse gram, Tur, field Bean, Ground nut etc., Paddy and Suger cane are also grown in pockets. Crop raiding by Elephants are common during crop season.

Present form of Land use:

At present collection of Major and Minor Forest produces is not in vogue. Efforts are being made to improve the habitat by soil and moisture conservation, cultural operations and dibbling of Bamboo and other

4.1.1 The location, extent, boundaries and natural attributes of the ZI:

NIL

4.1.2 Villages inside and outside the PA. Ethnic identities, traditions, customs, relationships between district groups of people, relationship with forests:

As such there are no villages or enclosures inside the sanctuary. The adjacent villagers used to graze their cattle, goats and sheep inside the sanctuary in the past. But after the declaration of the sanctuary, this has reduced considerably.

There are 25 villages were situated all along the boundary of the outside the sanctuary . These the peoples living in these villages having a good relationship with the sanctuary staff and extending their cooperation in protection and conservation measures and also to reduce the Man-Animal conflict.

4.1.3 The state of the people's economy, Vocations, land use, use of forest and non forest based natural resources by people and seasonal patterns:

Generally, the people of the surrounding villages are farmers depending on the land for their agricultural activities. The main source is agricultural income only. The farmers growing Tobacco and other Horticultural crops as a major commercial crops and also to grow Paddy, Jawar, Ragi, Grams and other crops for their requirement.

4.1.4 Implications of the land use and resource dependency for the conservation of PA:

Except for grazing and small firewood collection they are depending on the land. The pattern of major crops are dry like Ragi, Horse gram, Dolicas Vegetables and flowers during monsoon and flowers during monsoon.

4.1.5 Forest/PA management practices and their implications for people:

The sanctuary fringe villages were given smokeless chullas by Forest Department. And also Check dams and bore wells have been provided in community lands adjacent to park area under Eco-development programme. This helps to reduce the pressure on forest for grazing.

4.2 The Development programs and Conservation issues

There are no villages within the sanctuary. There are 25 villages adjacent to the sanctuary. There are no major development programs affecting the sanctuary. Different department is implementing the rural development and other programmes of the government. The main issue for conservation is the grazing and collection of firewood by villagers. Programs have been chalked out to address these issues.

PART II
THE PROPOSED MANAGEMENT
CHAPTER 5

Preamble

This small sanctuary can be developed into a Eco-tourism along with the nature education center. By improving the availability of Fodder, water and proper protection, the carrying capacity of the sanctuary can be increased. This area also forms catchment for Nugu dam as such it helps in preventing siltation into the dam.

Plan Objectives and Problems

Objectives of management

Nugu Wildlife Sanctuary is ecologically sensitive area which inhabits typical flora and fauna. The following are the main objectives of the management.

- a) To protect the sanctuary to the fullest extent possible so that many endangered and endemic flora and fauna inhabiting the area are adequately protected and propagated.
- b) To restore the degraded eco-system by adopting soil and moisture conservation methods and to regenerate such area with appropriate vegetation cover, by developing technology for eco-system restoration and maintenance of biological diversity.
- c) To create awareness among the public about the need to protect the nature in general.
- d) To develop eco-tourism and nature education center for recreation, education and scientific exploration.
- e) To involve the local people in the implementation of conservation and developmental programmes so that a balanced relationship is developed between man and nature.
- f) To promote and encourage wildlife research and ecological studies in consonance with the management objectives.

- g) To acquire the lands adjoining the sanctuary which are in between the boundary of the sanctuary and the back waters of Nugu reservoir.

5.2 Problems in achieving objectives

5.2.1 Problems related to protection

2. Illegal removal of firewood and small timber
3. Grazing
4. Forest Fire

5.2.2 Problems related to habitat management

1. Invasion by Weeds

Lantana, Eupatorium, Parthenium and Loranthus have invaded the park and suppressed the natural regeneration and the growth of fodder for wildlife.

2 Water holes

There are some water holes which are not perennial. These are to be desilted in faced manner and maintained.

3 Corridor

About 50 acres of private land situated between the sanctuary and back waters of Nugu Reservoir . The acquisition of this private land is helpful for pre movement of elephants from sanctuary to Nugu Reservoir.

5.2.3 Other related problems

1. Man & Animal conflict

The man and animal conflicts are mainly due to crop depredation by wild Elephants and other herbivores.

CHAPTER 6

THE STRATEGIES

6.1 Boundaries

The sanctuary comprises of Lakshmanapura State Forest and adjacent revenue land of Mullurgudda. The boundary of the sanctuary demarcated by excavating the elephant proof trench and installation of solar fencing all along the boundary of the sanctuary. However, it needs regular maintenance.

6.2 Zonation

No zonation has been done. Since the area is small, demarcating in to different zones is not practical.

6.3 Zone Plans NIL

6.4 Theme Plans

The following strategies are proposed to meet the objectives of the management

6.4.1 Habitat Improvement

This will be based on the following considerations

1. Protecting the area against biotic degradation
2. Improving the habitat for fauna of the area
3. Conserving, Protecting and increasing the biodiversity.
4. Removal of invasive weeds like Lantana & Eupatorium.
5. Fodder Development

6.3.1.1 Habitat Development works

The following works are proposed to develop and improve the habitat

1. Habitat restoration by removing and management of invasive weeds like Lantana & Eupatorium.
2. Planting of seedlings and sowing of seeds in a degraded areas with native species.
3. Sowing and dibbling of seeds in the gaps with suitable species to improve enhance the improvement of natural regeneration.

4. Adopting Soil and water conservation measures such as construction of Gully checks, Check dams, Construction of Contour trenches, Formation of Percolation ponds and creation of earthen bunds.
5. Maintenance of water holes - There are 13 water hole in the sanctuary. Though the number of water hole are adequate many of them silted up and water is not available during summer. it is necessary to desilt tanks in a phased manner from time to time before monsoon sets in and if need be the water retention capacity should also be increased.
6. Salt licks needs to be developed in the sanctuary
7. Providing cultural operations to naturally regenerated plants to boost up growth.
8. To develop fodder plots along the back waters of Nugu Reservoir to enhance the availability of fodder.

6.3.2 Strategies to overcome protection problems:

6.3.2.1 Control of illegal grazing:

Since the biotic interference like cattle grazing has caused negative effect on the crop composition of the flora and disturbance to the fauna of the area. To overcome this problem, following measures are proposed.

1. Maintenance of existing solar fencing and Elephant Proof trench

6.3.2.2 Control of illegal removal of timber fuel wood and NTFP:

Increasing patrolling by the departmental staff can control these biotic interferences by the villagers in the surroundings of the protected area. For effective night patrolling by departmental vehicles need useful motor able roads. Following works are proposed in this regard –

- 1) Maintenance of existing protection roads and construction of culverts and causeways wherever required.
- 2) Maintenance of existing roads annually along with pitching of slushy patches to keep them motor able in all seasons.

6.4.2 Control of poaching and illicit felling

The following strategies are proposed to control the poaching and illicit felling activities

1. Establishment of Antipoaching camp in the sensitive places of the sanctuary and providing field ration to the camping staff.
2. Maintenance of Patrolling and protection roads regularly
3. Procurement of Fire arms and ammunition
4. Secret service fund and intelligence network

6.4.3 Forest Fires

Forest fires is a very important factor, for consideration in the management of protected area network since it has a tremendous influence on the floral and faunal components of a habitat. One obvious fact is that fire destroys the organic matter, which contributes to the humus content of the substratum; this may cause deterioration of the soil and consequently, the value of the site may be lost

To improve the fire protection system by new stratagems with proper planning and management so as to control the fire problem successfully by taking into account the available resources at present and in the future .

The following fire controlling measures have been followed :

1. The Maintenance of existing fire lines before fire season
2. Engaging of fire combating squad during fire season
3. Maintenance of fire watch towers
4. Hiring of Vehicles during fire season.

6.4.4 To Reduce man and animal conflict

The following strategies are proposed to reduce the man and animal conflict

1. Maintenance of the existing elephant proof trench and solar fencing in the sanctuary
2. Construction of EPT walls in gap portions in the existing EPT
3. Timely payment of compensation
4. Establishment of elephant depredation camps by engaging local peoples to scare away the wild elephants in to their habitat.
5. Providing crackers to the farmers.
6. Construction of Lining to inside portion of the existing EPT.

CHAPTER 7

TOURISM, INTERPRETATION AND CONSERVATION EDUCATION

7.1 General

Presently the sanctuary has not opened for the tourism. The Foreshore area of Nugu Sanctuary is ideal place for nature camp. Nature camps are mainly meant for young groups, school children, nature lovers etc. Minimum facility lie make shift accommodation, cooking, drinking and Toilet facilities needs to be provided. Watch tower needs to be constructed. The activities for visitors may includes identification of birds, animal, Betonising, trekking etc. in addition to that it has been planned to establishment of elephants camp in back water of the Nugu Reservoir to trainup the elephants to forthcoming famous Mysore Dasara as well as regular elephant ride in the sanctuary for the tourists.

7.2 Objectives

1. To spread the message regarding the need to preserve all forms of fauna and flora and enable the public to see and appreciate the rich heritage of our country.
2. To educate the people, especially those who are living in the villages and towns surrounding the Reserve regarding the need to maintain such valuable conservation area thereby enlist their cooperation.
3. To inculcate in the minds of children love for all forms of wildlife and the need for conservation of natural resources.

7.3 Problems

The sanctuary has not been opened for the tourists. Hence, presently no problem to relating to tourism.

7.4 The strategies

The sanctuary has got good approaches from Mysore, H.D.Kote, Gundlupet and Nanjangud. The famous Bandipur National Park is situated

adjacent to the sanctuary and as such there is heavy movement of tourists moving towards Bandipur to Nagarahole through this sanctuary. The undulating terrain, rocky hillocks and wide variety of flora and fauna offer ample opportunity to the nature lovers. Hence eco tourism, by way of nature camps can be introduced on a modest scale. Nature camps are mainly meant for young groups, school children, nature lovers etc. Functional facilities like make shift accommodation, cooking, drinking water and toilet facilities need to be provided. Paragolas and watch towers need to be constructed. The activities for visitors may include identification of birds & animals, bird watching, botanizing, trekking etc.

7.4.1 Identification of a zone

Identification of separate tourism zone is not practical. However, the entire sanctuary area may be utilized for tourism activities.

7.4.2 Infrastructure development

It is proposed to develop the following infrastructure in the sanctuary for the benefit of tourists.

1. Formation of trekking paths
2. Purchase of one Jeep & One Boat
3. Erection of signages
4. Establishment of elephant camp for elephant safari
5. Conducting Nature camps to the school childrens and villagers

7.4.3 Regulations, monitoring and evaluation

1. Tourism at the backwaters of Nugu Reservoir should be allowed after clear demarcation
2. Tourists should be taken round along specified roads for specified trips to view wild life in government vehicles.
3. No baiting or artificial feeding of animal by the tourists will be banned.
4. Visiting hours should be 6.00 A.M. to 9.00 A.M. and 4.00 P.M. to 6.00 P.M during other timings no other visitors be allowed to enter the sanctuary.

CHAPTER 8

ECODEVELOPMENT

8.1 OBJECTIVES

The goal of eco-development is to protect the target area of ecosystem and its biodiversity including the human with site specific conservation package of measures derived through peoples participation, which addresses all aspects of land use and other resources in order to promote sustainable land use practices as well as off farm income generating activities which are not deleterious to P.A. values.

The general activities of eco-development aim to address the provision of alternatives to biomass, its economical use and higher production, strengthening of existing economic activities (farming, arts and crafts of friendly rural technology) improved land use practices, better management of common and private property resources, and overall development of socio-economic conditions and preservation of the cultural heritage of the rural society concerned in and around the P.As

Objectives

The objectives of the eco-development are as follows:

1. To reduce the pressures of the people on the sanctuary due to livestock grazing collection of fuel wood, small timber and NTFPs by 50% by the end of the plan period.
2. To improve the ecosystem and its biodiversity in the impacted zones in and around the sanctuary through water and soil conservation measures.
3. To reduce the pressures of the wildlife on the impacted zone due to crop depredation. cattle lifting, human injury and deaths by 75%.
4. To improve the socio-economic conditions of the people dependent on the sanctuary resources for sustenance and also to provide employment and income generating jobs to the needle people.

8.2 Specific Issues

The villages living around sanctuary are totally dependent on sanctuary for firewood. There are about 2000 families living in 25 villages in the 5 Km boundary.

To reduce the firewood consumption we have been able to provide alternate source of fuel in the form of LPG. The department has been providing LPG stoves at free of cost to all the villagers. And the villagers themselves pay the deposit amount for cylinder and regulator. All the villagers are eager to get the LPG connections.

8.3 Broad strategies

The following strategies are proposed

1. Providing LPG connections to the villagers to reduce the fuel wood consumption
2. Providing safe drinking water to drilling of borewells and fixing of hand pumps in villages
3. Providing community solar fencing on agricultural lands adjacent to the sanctuary on 50 : 50 basis by involving the villagers to control the damages to the agricultural crops from wild elephants.
4. Distributing of fuel wood seedlings to rise the energy plantation in agricultural lands
5. Taking up cattle and livestock immunization programme and encouraging for stall feeding
6. Construction of check dams and gully checks to conserve soil and moisture in agricultural lands
7. Supply of fruit yielding seedlings to the villages for improve their socio economic conditions of the rural peoples.
8. Rejuvenation of village tanks
9. Conducting Health & Eye camps in villages
10. Supply of fuel wood seedlings to the villagers
11. Distribution of Solar Lanterns / Street lights
12. Supporting to Eco Development Committees

8.4 Village level site specific strategies NIL

8.5 Monitoring and evaluation

CHAPTER 9

Research, Monitoring and training

Not much work has been done in respect of floristic and faunal survey in the sanctuary. This needs to be taken up and documented. Also study on population dynamics, seasonal migration and bio diversity etc needs to be taken up.

CHAPTER 10

ORGANISATION AND ADMINISTRATION

10.1 Structure and responsibilities

The sanctuary is under the administrative control of Karnataka Forest Department. The Deputy Conservator of Forests, Wildlife Division, Mysore is responsible for all the operations in the sanctuary including forest management and research. He is functioning under the administrative control of the Principal Chief Conservator of Forests (Wildlife), Bangalore.

The Deputy Conservator of Forests, Wildlife Division, Mysore with head quarters at Mysore and he is assisted by One Range Forest Officer, One Forester, Three Forest Guards,

10.2 Staff amenities

1. Housing – Existing protection staff quarters proposed to maintain every year and also to proposed to construct residential quarters to elephant Mahuths and Kawadies.
2. Special pay – The Government of India under project tiger scheme has given project allowance to the staff working in project tiger areas. Similarly project allowance should be given to the staff working in the sanctuary areas.
3. Uniforms and Field equipments – Uniforms needs to be provided as per the norms of the department, and it is proposed to provide field equipments like water bottles, binoculars, tape measures, GPS, and weapons and ammunitions etc.
4. Communication - Already a diesel jeep is provided to the Range Forest Officer and no further requirements of vehicles
5. Incentives and awards - Provision of incentives and awards is very much essential to motivate the staff and officers working in wildlife areas.

APPENDIX -I
NOTIFICATION OF SANCTUARY
GOVERNMENT OF KARNATAKA

No. AFD.64.FWL.74

Karnataka Government Secretariat,
Vidhana Soudha , Bangalore
dated 17-6-1974

NOTIFICATION

Whereas the Government of Karnataka considers that it is desirable to declare the area, the situation and limits of which are specified in the Schedule below, to be a Sanctuary as it is of adequate ecological faunal floral, geomorphological, natural or zoological significance for the purpose of protecting, progating or developing wild life of its environment

Now, therefore in exercise of the powers conferred by section 18 of the Wild Life (Protection) Act, 1972 (Central Act 53 of 1972 the Government of Karnataka hereby declares the area, the situation and limits o which are specified in the Schedule, below to be a Sanctuary called as “**NUGU WILD LIFE SANCTUARY**”.

Schedule

Name of the District	:	Mysore District
Area	:	7,460.40 Acres or 30.32 Sq.Km

Boundary Description

North : Starting at a point where the Sargur – Hediyaala road touches the North West corner of Lakshmanpur State Forest and runs nort west along the road and passes along the bottom line of Mallur betta and by the side of P.W.D. lodges and runs along the road and crosses the channel and touches the point at the northern end of the water spread.

West: The line runs along the ridge of the hill back and crosses the river Nugu and touches the Lakshmanapura State Firest line at Laksoge, and runs sough along the State Forest line parallel to Alagarchi State Forest line on the other bank of river Nugu

South: The line turns East and North along the State Forest line and touches Hadnur village

East: The line runs towards north along the State Forest line and touches the starting point.

BY ORDER AND IN THE NAME OF THE
GOVERNOR OF KARNATAKA

Sd/-

(S. Shyam Sunder)
Spl. Officer and Ex-Offico,
Deputy Secretary to Government,
Agri. And Forest Department

GOVERNMENT OF KARNATAKA

FEE 58 FWL 96

Karnataka Government Secretariat
Sachivalaya – II
Bangalore dated 9-3-98

NOTIFICATION

Whereas by reasons of its ecological , faunal, floral, Geomorphologic, zoological Association or importance, and for the purpose of protecting propagating or developing wildlife therein or its environment, the Government of Karnataka in exercise of the power conferred by of Section 18 of Wildlife Protection Act 1972 (Amendment 1991) (Central Act 53 of 1972) declare the area, the situation and limits of which are specified in the schedule therein to a Wildlife Sanctuary vide notification No. AFD 54 FWL 74 dated 17-6-1974 called as NUGU WILDLIFE SANCTUARY

And whereas the following events have occurred namely:

1. The Revenue Department have not enquired and determined the existence nature and extent of the right of any person in or over the land comprised within the limits of Sanctuary or National Park as per provision of Section 19 to 25 of the wildlife protection Act –1972.
2. The notified area of Sanctuary comprises of Reserve Forest only
3. While constituting the Reserve Forest, Proclamation has already been carried out by the Forest Settlement officer as per provisions of section 5 of the Karnataka Act 1963 and
4. Insertion of Section 26A (b) in the Wildlife Protection Act, 1972, (Amended during October 1991).

Now, therefore in exercise of the power conferred by sub-Section A(b) of Section 26 of the Wildlife Protection Act – 1972 (as amended upto 1991), the constitution of the NUGU WILDLIFE SANCTUARY. Wildlife Sanctuary as notified under section 18 of the Wildlife Protection Act 1972 as per government Notification No. AFD 54 FWL 74, dated 17-6-1974 now stands confirmed.

BY ORDER AND IN THE NAME OF THE
GOVERNOR OF KARNATAKA

Sd/-

(W. Joseph)

Forest Env. & Ecology Department
Forest – A

APPENDIX - II
LIST OF VILLAGES SITUATED OUTSIDE IN ALL ALONG THE
BOUNDARY OF THE SANCTUARY

Sl.No.	Name of the Village
1	Hosa Birwal
2	Hediyala
3	Parvathipura
4	Badgalapura
5	Adnur
6	Ettige
7	Yeshwanthapura
8	Dakthipura
9	Muttigehundi
10	Chikkabairige
11	Chikkatralu
12	Chinnagundi
13	Aralahalli
14	Lokkasoge
15	Kalenapur
16	Heggudlu
17	Halsur
18	Kalegowdanahundi
19	Mullur
20	Chanalapura
21	Bankanahallui
22	Venkatarajpur
23	Vadenpur
24	Hosa heggdlu
25	Muthurhundi

Annexure-III
NUGU WILDLIFE SANCTUARY
BUDGET PROPOSALS FOR IMPLEMENTATION OF MANAGEMENT PLAN
FROM THE YEAR 2011-12 TO 2015-16

(Rs. in Lakhs)

Sl. No.	Particulars of Works proposed	2011-12		2012-13		2013-14		2014-15		2015-16		Grand Total	
		Phy	Fin.	Phy	Fin.	Phy	Fin.	Phy	Fin.	Phy	Fin.	Phy	Fin.
1	2	3	4	5	6	7	8	9	10	11	12	13	14
I. Budget for Protection against Poaching and Smuggling Activities													
1	Establishment and maintenance of Antipoaching camps	4 camps	7.50	4 camps	8.25	4 camps	9.00	4 camps	10.00	4 camps	11.00	4 Camps	45.75
2	Logistic support to Antipoaching camps (Providing field ration & other basic facilities)	4 Camps	2.50	4 Camps	2.75	4 Camps	3.00	4 Camps	3.30	4 Camps	3.75	4 Camps	15.30
Total –I			10.00		11.00		12.00		13.30		14.75		61.05
II . Budget for strengthening of Network of protection Roads													
1	Maintenance and Repair works to existing protection roads	60 km	12.00	60 Km	12.00	60 Km	12.00	60 Km	12.00	60 Km	12.00	60 Km	60.00
2	Construction of Culverts in protection roads	2 No.s	3.00	2 No.s	3.50							4 No.s	6.50
3	Pitching works to slusy places on protection roads	500 Rmtr	2.50	500 Rmtr	2.75	500 Rmtr	3.00	500 Rmtr	3.30	500 Rmtr	3.80	2500 Rmtr	15.35
Total- II			17.50		18.25		15.00		15.30		15.80		81.85

1	2	3	4	5	6	7	8	9	10	11	12	13	14
III. Budget for Communication Network													
1	Vehicles												
a)	Maintenance of existing protection vehicles (One Jeep & one Tractor)	2 No	3.00	2 No.	3.30	2 No.	3.65	2 No.	4.00	2 No.	4.40	2 No.	18.35
b)	Maintenance of existing Two wheeler	1 No.	0.10	1 No.	0.12	1 No.	0.14	1 No.	0.16	1 No.	0.18	1 No.	0.70
	Sub Total		3.10		3.42		3.79		4.16		4.58		19.05
2	Wireless Network												
a)	Maintenance of Existing Wireless Network (repairs and purchase of batteries)	L.S.	0.25	L.S.	0.25	L.S.	0.25	L.S.	0.25	L.S.	0.25	L.S.	1.25
	Sub Total		0.25		0.25		0.25		0.25		0.25		1.25
	Total - III		3.35		3.67		4.04		4.41		4.83		20.30
IV. Budget for Fire protection works													
1.	Maintenance of existing fire lines to the width of 10 mtrs.	81 Km	2.03	81 Km	2.23	81 Km	2.50	81 Km	2.75	81 Km	3.00	81 Km	12.51
2.	Engaging Fire watchers from January to March every year	35 mem.	5.40	35 mem.	6.00	35 mem.	6.60	35 mem.	7.20	35 mem.	8.00	35 mem.	33.20
3	Maintenance of Fire Watch tower	2 No.	0.50	2 No.	0.50	2 No.	0.75	2 No.	0.75	2 No.	1.00	2 No.	3.50
4.	Purchase of Fire fighting equipments, water cans etc.	L.S.	0.25	L.S.	0.25	L.S.	0.25	L.S.	0.25	L.S.	0.25	L.S.	1.25
	Total- IV		8.18		8.98		10.10		10.95		12.25		50.46

1	2	3	4	5	6	7	8	9	10	11	12	13	14
V. Budget for Habitat Improvement & Water Sources													
1	Habitat Restoration by removing and management of invasive species like Lantana & Eupatorium	100 Ha.	10.00	100 Ha.	11.00	100 Ha.	12.10	100 Ha.	13.20	100 Ha.	14.50	500 Ha	60.80
2	Regeneration of Degraded areas (Encouragement to Assisted Natural Regeneration)	100 Ha.	25.00	100 Ha.	27.50	100 Ha.	30.00	100 Ha.	33.00	100 Ha.	37.00	500 Ha	152.50
3	Sowing of Bamboo and other indigenous species seeds	100 Ha.	2.00	100 Ha.	2.20	100 Ha.	2.50	100 Ha.	2.75	100 Ha.	3.00	500 Ha	12.45
4	Development of Fodder and grass lands	50 Ha.	6.25	50 Ha.	7.00	50 Ha.	7.70	50 Ha.	8.40	50 Ha.	10.20	250 Ha	39.55
5	Maintenance of View lines	70 Km	2.30	70 Km	2.55	70 Km	2.80	70 Km	3.10	70 Km	3.45	70 Km	14.20
5	Widening and Strengthening of existing waterholes	3 No.	4.50	3 No.	5.00	3 No.	5.50	3 No.	6.00	3 No.	6.75	15 No.	27.75
6	Saltlicks	Ls	0.25	Ls	0.25	Ls	0.25	Ls	0.25	Ls	0.25	Ls	1.25
Total- V			50.30		55.50		60.85		66.70		75.15		308.50
VI. Budget for Soil & Moisture Conservation Works													
1	Construction of Contour Trenches	4000 Cmtr	2.50	4000 Cmtr	2.75	4000 Cmtr	3.00	4000 Cmtr	3.25	4000 Cmtr	3.50	2000 Cmtr	15.00

1	2	3	4	5	6	7	8	9	10	11	12	13	14
2	Construction of Percolation Tanks / Recharge Ponds	25 No.	6.25	25 No.	7.00	25 No.	7.75	25 No.	8.50	25 No.	9.25	125 Nos	38.75
3	Construction of Check dams	1 No.	1.50	1 No.	1.50	1 No.	1.50	1 No.	1.50	1 No.	1.50	5 No.	7.50
Total- VI			10.25		11.25		12.25		13.25		14.25		61.25
VII. Budget for Reducing of Man & Animal conflict													
1	Construction of wall inside the existing EPT	2000 Rmtr	40.00	2000 Rmtr	44.00	2000 Rmtr	48.40	2000 Rmtr	53.25	2000 Rmtr	58.60	10000 Rmtr	244.25
2	Annual maintenance and existing EPT	20 Km	5.00	20 Km	5.50	20 Km	6.05	20 Km	6.70	20 Km	7.40	100 Km	30.65
3	Annual maintenance of existing solar fence	25 Km	6.25	25 Km	6.90	25 Km	7.60	25 Km	8.35	25 Km	9.20	125 Km	38.30
4	Establishment of Elephant Depredation camps	5 No.	16.25	5 No.	17.90	5 No.	19.70	5 No.	21.65	5 No.	23.80	25 No.	99.30
5	Purchase of crackers	Ls	0.25	Ls	0.25	Ls	0.25	Ls	0.25	Ls	0.25	Ls	1.25
Total-VII			67.75		74.55		82.00		90.20		99.25		413.75
VIII. Employment of Man power													
1	Engaging daily wage Drivers.	2 No.	1.40	2 No.	1.60	2 No.	1.80	2 No.	2.00	2 No.	2.20	2 No.	9.00
2	Engaging Literate Assistant	1 No.	0.70	1 No.	0.77	1 No.	0.85	1 No.	0.95	1 No.	1.05	1 No.	4.32

1	2	3	4	5	6	7	8	9	10	11	12	13	14
3	Engaging Office Peon & Night Watchman	2 No.	1.25	2 No.	1.40	2 No.	1.60	2 No.	1.80	2 No.	2.00	2 No.	8.05
4	Engaging Daily wages labourers on MR for protection works (Wages + 1000/- Extra allowance per month)	4 No.	3.10	4 No.	3.40	4 No.	3.75	4 No.	4.10	4 No.	4.50	4 No.	18.85
Total- VIII			6.45		7.17		8.00		8.85		9.75		40.22
IX. Budget for Conducting Wild Animal Census													
1	Conducting Tiger Census & Elephant and other herbivore animals census	L.S.	0.25	L.S.	0.25	L.S.	0.25	L.S.	0.25	L.S.	0.25	L.S.	1.25
Total-IX			0.25		0.25		0.25		0.25		0.25		1.25
X . Budget for publicity, Nature awareness programmes etc.													
1	Conducting Nature camps to School childrens	10 camp	0.50	10 camp	0.50	10 camp	0.50	10 camp	0.50	10 camp	0.50	50 camp	2.50
2	Production of publicity materials like Broachers	L.S.	0.25	L.S.	0.25	L.S.	0.25	L.S.	0.25	L.S.	0.25	L.S.	1.25
3	Procurement of Nature camp equipments	L.S.	0.25	L.S.	0.25	L.S.	0.25	L.S.	0.25	L.S.	0.25	L.S.	1.25
Total-X			1.00		1.00		1.00		1.00		1.00		5.00
XI. Budget for Amenities to Staff													
1	Construction of Quarters												
a)	Construction of Quarters to Mahouths & Kawadies	4 No.	15.50	4 No.	16.50							8 No.	32.00

1	2	3	4	5	6	7	8	9	10	11	12	13	14
b)	Maintenance of existing staff quarters	5 No.	2.50	5 No.	2.50	5 No.	2.50	13 No.	6.50	13 No.	7.00	9 No.	21.00
2	Project allowance to Field Staff (as per Government of India norms)	L.S.	0.75	L.S.	0.75	L.S.	0.75	L.S.	0.75	L.S.	0.75	L.S.	3.75
3	Uniforms and field equipment	L.S.	0.50	L.S.	0.50	L.S.	0.50	L.S.	0.50	L.S.	0.50	L.S.	2.50
4.	Incentives & awards	L.S.	0.10	L.S.	0.10	L.S.	0.10	L.S.	0.10	L.S.	0.10	L.S.	0.50
Total-XI			19.35		20.35		3.85		7.85		8.35		59.75
XII. Eco development activities													
1	Providing LPG connections to the villagers (for destruction of LPG stoves of free of cost)	200 No.	4.00	200 No.	4.00	200 No.	4.00	200 No.	4.00	200 No	4.00	1000 No.	20.00
2	Rejuvenation of village cattle ponds	2 No.	2.00	2 No.	2.20	2 No.	2.40	2 No.	2.65	2 No.	3.00	10 No.	12.25
3	Providing Borewells with Hand pumps in villages for providing safe drinking water	5 No.	3.25	5 No.	3.60	5 No.	4.00	5 No.	4.50	5 No.	5.00	25 No.	20.35
5	Providing community solar fencing in agricultural lands by involving formers	2 No.	2.00	2 No.	2.00	2 No.	2.00	2 No.	2.00	2 No.	2.00	10 No.	10.00
6	Conducting Eye & Health camps	5 Camps	0.50	5 Camps	0.50	5 Camps	0.50	5 Camps	0.50	5 Camps	0.50	25 Camps	2.50

1	2	3	4	5	6	7	8	9	10	11	12	13	14
7	Vaccination programme (Immunization of local cattles)	L.S.	1.50	L.S.	1.50	L.S.	1.50	L.S.	1.50	L.S.	1.50	L.S.	7.50
8	Formation of new Eco Development Committee	1 No.	0.50	1 No.	0.50		0		0		0	2 No.	1.00
9	IGA for lively wood support to Eco Development Committee	1 No.	1.00	1 No.	1.00		0		0		0	2 No.	2.00
10	Exposure trips for staff and EDC members	1 No.	0.50	1 No.	0.50	1 No.	0.50	1 No.	0.50	1 No.	0.50	5 No.	2.50
11	Biodiversity documentation in EDC villages		0	2 No.	0.50		0		0		0	2 No.	0.50
12	Promoting Form Forestry in EDC villages (Distribution of Seedlings)	10000 Seedlings	1.25	10000 Seedlings	1.40	10000 Seedlings	1.55	10000 Seedlings	1.70	10000 Seedlings	1.90	50000 Seedlings	7.80
13	Development of Eco tourism spot	1 No.	10.00	1 No.	10.00	1 No.	10.00	1 No.	10.00	1 No.	10.00	5 No.	50.00
Total-XII			26.50		27.70		26.45		27.35		28.40		136.40
XIII. Budget for Establishment of Elephant Camp													
1	Construction of Shed and Creation of infrastructures to elephant camp	1 No.	5.00									1 No.	5.00
2	Providing ration to camp elephants	6 No.	6.00	6 No.	6.60	6 No.	7.35	6 No.	8.00	6 No.	8.80	6 No.	36.75
Total- XII			11.00		6.60		7.35		8.00		8.80		41.75

1	2	3	4	5	6	7	8	9	10	11	12	13	14
XIV	Research Monitoring and evaluation	L.S.	0.25	L.S.	0.25	L.S.	0.25	L.S.	0.25	L.S.	0.25	L.S.	1.25
Total-XIII			0.25		0.25		0.25		0.25		0.25		1.25
XV Acquisition of Land													
1	Acquisition of Land			50 Acres	50.00		50.00		50.00		50.00	50 Acres	200.00
Total-XV					50.00		50.00		50.00		50.00		20.00
Grand Total			232.13		296.52		293.39		317.66		343.08		1482.78

Deputy Conservator of Forests
Wildlife Division, Mysore

ABSTRACT OF FINANCIAL REQUIREMENT FOR THE PERIOD FROM 2011-12 TO 2015-16

(Rs. in Lakhs)

Sl. No.	Particulars of Works proposed	2011-12	2012-13	2013-14	2014-15	2015-16	Grand Total
1	Budget for Protection against Poaching and Smuggling Activities	10.00	11.00	12.00	13.30	14.75	61.05
2	Budget for strengthening of Network of protection Roads	17.50	18.25	15.00	15.30	15.80	81.85
3	Budget for Communication Network	3.35	3.67	4.04	4.41	4.83	20.30
4	Budget for Fire protection works	8.18	8.98	10.10	10.95	12.25	50.46
5	Budget for Habitat Improvement & Water Sources	50.30	55.50	60.85	66.70	75.15	308.50
6	Budget for Soil & Moisture Conservation Works	10.25	11.25	12.25	13.25	14.25	61.25
7	Budget for Reducing of Man & Animal conflict	67.75	74.55	82.00	90.20	99.25	413.75
8	Employment of Man power	6.45	7.17	8.00	8.85	9.75	40.22
9	Budget for Conducting Wild Animal Census	0.25	0.25	0.25	0.25	0.25	1.25
10	Budget for publicity, Nature awareness programmes etc.	1.00	1.00	1.00	1.00	1.00	5.00
11	Budget for Amenities to Staff	19.35	20.35	3.85	7.85	8.35	59.75
12	Eco development activities	26.50	27.70	26.45	27.35	28.40	136.40
13	Budget for Establishment of Elephant Camp	11.00	6.60	7.35	8.00	8.80	41.75
14	Research Monitoring and evaluation	0.25	0.25	0.25	0.25	0.25	1.25
15	Acquisition of Land		50.00	50.00	50.00	50.00	200.00
	Total	232.13	296.52	293.39	317.66	343.08	1482.78

Deputy Conservator of Forests
Wildlife Division, Mysore

Annexure -IV

Map of Nugu Wildlife Sanctuary

