

Part – I

Chapter I

Introduction:

A reservoir was constructed by irrigation department at Attiveri in midst of forests of Mundgod range in Yallapura Forest Division in the year 1992. Birds started attracting by this reservoir in large numbers year after year noticing this Yallapur Forest Division started improving this area by taking up development works for birds habitat and sent proposals to declare this as a sanctuary for the protection and conservation of the bird life. This area was declared as Attiveri Bird Sanctuary by the Government in the year 2000.

Attiveri Bird Sanctuary is situated in Mundgod taluka of Uttar Kannada District. The sanctuary consists of a reservoir built across Tayavvanahalla at Attiveri in Mundgod taluka passing through the forests of Dundasi forest range in Haveri forest division. Extent of the sanctuary is 560 acres comprising 548 acres of reserve forest and 12 acres private lands.

1.1 Name Location Constitution and Extent:

The Sanctuary is called as Attiveri bird Sanctuary. The Sanctuary is located in the Borders of Mundgod & Kalghatgi taluka of Uttar Kannada and Dharwad District respectively. The Sanctuary is constituted as per Government of Karnataka Notification no FEE 140 FWL 93 Dated 3/10/2000 with an extent of area 2.226 sq. km (Annexure-X).

1.2 Approach & Access:

The Sanctuary is well connected to important cities like Hubli, Sirsi, Haveri, Belgaum, Bangalore by road railway and air. To Approach the sanctuary from Bangalore to Tadas cross on P.B. Road then diversion towards Mundgod is 400 km from Mundgod Town is 17 km. The nearest Railway station and Airport is Hubli, which is 43 km away.

1.3 Statement of Significance:

In the year 1992 an irrigation tank was built across Thayavanahalla at Attiveri village to cater the irrigation needs of the local farmers. This resulted in submergence of natural forest around the nallah. Some of the trees that were left out started attracting varieties of birds, both local and migratory. In the first year

witnessed about 20 SPP, followed by 35 SPP in the next year. As the reservoir is located in the midst of a moist deciduous forest in a calm and serene locality with abundant feeding grounds in the surroundings, it became a heaven for the birds to seek refuge here for their breeding activities. Birds perching to the tress partially submerged in the water, stand testimony to the fact that, safety is the prime concern for the birding activity. Come winter every year, it is a pleasure to see varieties of birds flocking in thousands here.

More than 1200 pairs of birds are found breeding in this man made habitat. White Ibis, Herons, little Cormorants, Spoonbills, Painted storks are some of the SPP, which breed here, Birds like Lapwings, Water hen Stilt, Darter, Indian shag etc are found throughout the year. Pintails, Gargany, Shoveller, Plovers etc migrate here for breeding between Novembers to February. Many small and big tanks in the adjacent areas of Mundagod, Haliyal and Yellapur taluks also help the birds to nest, feed and breed, thus making up this sanctuary an ideal aquatic habitat.

Chapter – II

Background Information and Attributes

2.1 Boundaries: The sanctuary comprises a reservoir constructed across Tayavvanahalla. The boundaries are well defined in the notification comprising reserve forests of Mundgod and Kalaghatagi ranges of Yallapur and Dharawad Forest Divisions respectively.

2.2 Geology, rock and soil & Terrain: Soil is red sandy as well as black rich loam of secondary origin formed as result of primary disintegration of both trap and gneiss charged with organic matter.

2.3 Climate: Mean annual rain fall varies from 1000 mm to 1500mm. The Sanctuary is exposed to torrential thunder showers starting from May – June with heavy monsoon showers in June – July & August.

Winds: The two monsoons winds that blow over the sanctuary are:

- 1) The South – Westerly wind between June & September.
- 2) The North – Easterly wind between September & December

2.4 Temperature: The climate in general is dry with minimum and maximum temperature varies between 15⁰ C to 37⁰ C respectively.

2.5 Water Sources: The irrigation tank which was built across Thayavanahalla at Attiveri Village to cater the irrigation needs of the local farmers is the main water source.

2.6.1 Vegetation: The Biotic factors and edaphic variations have played a dominant role in determining nature of the forests growing in Sanctuary area. The local as well as migratory birds are attracted to the flowering and fruit yielding trees found in the vicinity. *Acacia arabica* considered of special interest as they are good for nesting which are found in good number.

The Common Tree Species Found are:

- | | | |
|-------------------------------------|---|----------------|
| 1) <i>Albizia lebbek</i> | - | Bage. |
| 2) <i>Acacia arabica</i> | - | Karjiali. |
| 3) <i>Artocarpus integrifolia</i> | - | Halasu. |
| 4) <i>Acacia leucophea</i> | - | Bili Jali. |
| 5) <i>Bombax malabarica</i> | - | Buralu. |
| 6) <i>Bambusa arundinacea</i> | - | Dowga. |
| 7) <i>Borassus flabellifer</i> | - | Palmyra tree. |
| 8) <i>Calophyllum inophyllum</i> | - | Yenne Honne |
| 9) <i>Dalbergia species</i> | - | Tadasa. |
| 10) <i>Eugenia caryophyllata</i> | - | Kunti neerala. |
| 11) <i>Lagerstroemia lanceolata</i> | - | Nandi. |
| 12) <i>Erythrina indica</i> | - | Hungarike. |

- | | | |
|----------------------------------|---|-----------|
| 13) <i>Morinda tinctoria</i> | - | Matti. |
| 14) <i>Murraya koenigi</i> | - | Karibevu. |
| 15) <i>Polyalthia longifolia</i> | - | Ashoka. |
| 16) <i>Phyllanthus emblica</i> | - | Nelli. |
| 17) <i>Tectona grandis</i> | - | Teak |
| 18) <i>Terminalia paniculata</i> | - | Kindal |
| 19) <i>Eugenia jambulana</i> | - | Nerale. |

2.6.2 Animals Attiveri Bird Sanctuary is mainly a sanctuary of local birds and Migratory Birds. However other fauna found in the sanctuary are wild Boar, Python, Cobra, Rat Snakes, Vipers, Indian Porcupine, Jackal, Indian hare, spotted deer, Wolf, Common Mangoose, Common Langur. The list of animals are annexed at Annexure-XI.

Variety of birds are also seen in the sanctuary among them most commonly seen are as annexed as per annexure-XII.

Chapter – III

History of Management & Present Practices.

3.1 General: An extent of 560 Acres comprising 532 acres in Mundgod & 28 acres in Kalghatagi taluks (2.226 sq. kms.) is declared as Attiveri Birds Sanctuary. Vide Notification No. FEE-17-FWL-1999 dtd: 17-8-2000. Notification enclosed vide Annexure VIII. The entire area is reserved forests comprising an enclosure of 12 acres malki land and a reservoir of 100.69 ha. The Length of the dam is 741 mtr, with a maximum water storage capacity of 14.32 Million cubic feet and a minimum water storage capacity of 28.09 Million cubic feet. The construction of Dam was completed during 1992, across the Tayavvanahall. During 1992 rain water was stored in the dam, the inundated trees and bushes started attracting the birds. The birds started nesting on these trees and bushes. When this became routine, the area was protected as Bird sanctuary. It is estimated that nearly 300 pairs started nesting and roosting in the first year only i.e. during 1992. During 1993 nearly 1200 pairs came to make their home and breed young ones.

The Sanctuary offers ample opportunity for tourists. Keeping this in view it is necessary to develop basic infrastructure to provide facilities for the tourists. Already in the last three years children park, dormitory cafeteria toilet block, stroll ramp works are carried out but they are incomplete, in future these works are to be completed.

3.2 Timber Operations Including Bamboo and Firewood Harvest: The maximum area is comprising of water body and its fore area. A small portion of reserve forests are left around the water body which do not contain any bamboos and fire wood for commercial exploitation.

3.3 Non wood forest produce (NWP) collection: None of the non wood forest produce is available in this sanctuary.

3.4 Leases: None of the Forest land is granted on lease basis for non forestry purpose.

3.5 Forest Protection: Sanctuary is covered by chain links mesh fencing and cattle proof trench.

- 1) Surroundings are protected from biotic disturbances and encroachments by villagers and cultivators by deploying watch and ward.
- 2) Fishing activities are prohibited in the reservoir.
- 3) Firewood collection, grazing are to be prohibited.

3.6 Tourism: The Sanctuary offers ample opportunity for tourists. Keeping this in view it is necessary to develop basic infrastructure to provide facilities to the

tourists. Here the approach will be environment friendly and all activities aimed at development of tourism will be implemented in consonance with the natural surroundings, Visits to the sanctuary should be organized in such a way to maximize people's enjoyment and increase visitors concern for nature conservation.

Already in the last three years under rural tourism scheme and Central assistance for development of National Parks and Sanctuaries the following tourism activities are carried out to attract tourists.

- i) Kinder Garden / Children Park
- ii) Dormitory, Toilet block and cafeteria.
- iii) Stroll Ramp
- iv) Watch Towers
- v) Paragolas,

Following facilities can be made available in the Sanctuary

- Providing nature camp facilities for Children and Tourists.
- Sporting and Sight Seeing.
- Incomplete stroll ramp to be completed
- Purchase of Boats
- Drinking water facilities.
- Improvement of Paragola and Watch towers.

3.7 Administrative set up: At present one Range Forest Officer with his headquarter at Ranebennur one forester and some contract base mazdoors look after the protection and developmental activities of the sanctuary under the supervision and control of Assistant Conservator of Forest wildlife sub-division, Ranebennur.

3.8 Communication: Telephone and E-mail facility to the office has been provided to Assistant Conservator of Forests office, Ranebennur. One static wireless set is required in the Sanctuary.

Chapter – IV

The Protected area and the inter face land use situation

4.1 The existing situation in the zone of influence:

The people residing around the sanctuary are not using this area directly for any purpose. Since there is no dependency on the Protected area, people around the Protected area are much co-operative and farming is the major occupation.

Farmers are actually benefited by birds because to certain extent they feed on insects in their fields and control the pest population.

But usage of chemicals and fertilizers and pesticides by farmers to protect the agricultural crop may influence the population of insects and other amphibians and fishes which are the feeding grounds of some migratory birds. The after effects are not yet studied but these activities have no influence on the population of the migratory birds as per the census. Even then the farmers may be educated and encouraged in using bio-fertilisers and other less harmful pesticides.

Part – 2

Proposed Management.

Chapter – 5

Plan objectives and Problems

5.1 Objectives of Management.

Attiveri bird sanctuary is very important sanctuary from point of unique location and biological diversity. Since the “**Rio Conference**” the world is awakening to the complex bio-diversity of this planet and necessity to maintain it for human survival and well being. Hence, this plan is drawn up for a period of 5 years for the period 2009-10 to 2013-14.

Objectives:

The following objectives are set for the management of sanctuary.

It is prime duty to protect the sanctuary and the flora and fauna are to be conserved and protected. Attiveri bird sanctuary is a beautiful piece of nature harboring numerous endemic and migratory birds with distinct ecological features.

Hence prime object is to protect this treasure to the fullest extent possible. So that many endangered endemic and migratory birds inhabiting the area are adequately protected and propagated.

- a) Restore the degraded portions of the sanctuary through habitate improvement
- b) To create awareness among the people about the need to protect the nature in general and the sanctuary in particular
- C) Migratory birds like Garganey, pintails, storks etc., regularly invade and destroy the agricultural crops in nearby fields very often the whole crop in the field was found to be divested by the birds resulting in man and animal conflicts. So the more important object of the management here is to prevent such conflicts by developing feeding grounds around the sanctuary.
- D) To maintain and develop to the extent considered necessary tourism for recreation, education and scientific exploration.

5.2 Problems in achieving objectives:-

The Attiveri reservoir is depended on rain water. During good monsoon it fills up and overflow otherwise it would not be. Hence, it is to be manipulated so that the birds should get protected by creating artificial islands surrounded by water channels to maintain dead storage level around the islands which facilitates the birds to nest and roost even during bad monsoon without any disturbance. The cattle of villages belonging to Astikatta, Attiveri, Gouli Daddi, depends for grazing and drinking water on this sanctuary is a serious problem.

Chapter – 6

The Strategies

6.1 Boundaries:-

As per notification No. FEE/17/FWL/99 dated: 17-08-2000 declared as Attiveri bird sanctuary over an extent of 560 hectares comprising of 548 acres 4 guntas of Reserve Forest and 11 acres 36 guntas of private land. The proposed budget provision is as per Annexure-IV.

6.2 Zonation:-

As such the habitat is restricted to reservoir and its foreshore can be treated as a ***Core Zone*** which is having a zero disturbance. Fishing activities are banned in the reservoir.

The area is surrounded by natural forest and agriculture fields irrigated by this reservoir are treated as ***Buffer Zone***.

Restoration Zone:-

Birds in the sanctuary selected the islands which are totally man made and covered by deep waters for nesting activities. Hence, small islands have to be created and consolidated mechanically and planted with *Acacia Nilotica*. Which improves the habitat for nesting and breeding of birds.

6.3 Theme Plans:

The following strategies are proposed for meeting the objectives of management.

6.3.1 Habitat improvement:

Habitat improvement will be based on the following considerations.

- 1) Protecting area against biotic degradation.
- 2) Improving the habitat for birds and other fauna.
- 3) Conserving, protecting and increasing the bio diversity.

6.3.1.1 Habitat development works:

The following works are proposed with regard to habitat improvement.

- a) The trees presently being used by birds for nesting should be protected from flood waters, duly strengthening the islands by constructing rubble stone revetment and maintenance of water levels around the islands by regulating water flow into the channels formed around the islands.

- b) Tree planting with suitable species should be taken up to ensure the future availability of good nesting sites. The barren patches in the island because of alkaline soil need be planted with trees after suitably treating the soil. Exotic weeds found in the sanctuary need to be eradicated. Planting with suitable species which help in feeding and breeding birds to be done.
- c) New islands are to be created artificially and planted with suitable tree species for providing roosting sites for birds.
- d) Measures for controlling predators like stray dogs are to be taken up by catching and translocating them to elsewhere.

The proposed Budget provision is as per Annexure-V.

6.3.2.Strategies to overcome protection problems:

6.3.2.1 Control of illegal fishing:

Fishing is totally banned within the sanctuary area. Day and night patrolling is done to book cases of illegal fishing. Boats used for tourism are being used for night patrolling.

6.3.2.2 Control of illegal grazing:

Since, the sanctuary is surrounded by villages and irrigated fields during summer cattle are driven inside the sanctuary for illegal grazing and drinking water. To control this chain link fencing is proposed at all strategic points on the boundary.

6.3.2.3 Fire Protection: Around the water body of the sanctuary there exists deciduous scrub forest with lot of grass, it is vulnerable for fire. Hence, clearing of fire lines along the boundary and other vulnerable places are to be taken up in advance during summer. Fire watchers need to be engaged to put off any accidental fire.

6.3.2.4 Publicity awareness:

To spread the message of conservation of wildlife, publicity material like brochures, hand bills should be prepared and distributed freely among the tourists, general public, school children and the people surrounding villages to create awareness regarding the importance of conserving wildlife. The proposed budget provision is as per Annexure-VIII.

Chapter – 7

Tourism Interpretation and Conservation education.

7.1 General:

Attiveri Bird Sanctuary happens to be one of the important tourism spot for watching birds. Perhaps the other tourism spots like Tibetan Camp, Chigalli Lamp, Sirsi Marikamba Temple, Sahasra Linga, Yana etc., are other linked places of attraction. Boating all along the side of the islands closely watching various resident and migratory birds is a wonderful experience to the tourists. The Rowing boats which are not at all disturbing the peaceful existence of birds is a unique feature. In future rowing boats should be used for this purpose. From the point of view of conservation education Attiveri Bird sanctuary is adjudged a best spot.

7.2 Objectives:

- (a) To develop eco-tourism for recreation, education and scientific exploration.
- (b) To provide wilderness experience to genuine enthusiasts in particular and to the public in general.
- (c) To educate the people especially those living nearby the sanctuary areas regarding the need to maintain such sanctuary and their by enlisting their co-operation.
- (d) To develop love for all types of wild life and to inculcate the idea of conservation of bio diversity in the minds of the public in general and children in particular.

7.3 Problems:

The grazing and fire wood gatherers are the main cause for the destruction of the sanctuary and its surroundings. Hence, preventive measures have been given much importance in the habitat development. There are occasional instances of poaching of birds in the sanctuary. Considering all these aspects, the following measures are suggested.

- 1) Establishing protection and anti-poaching quads.
- 2) Protection from fire by
 - a) Employing firewatchers during summer:
 - b) Fire line clearance.
- 3) Protection from grazing in the sanctuary area.
- 4) Prohibition of fishing in the reservoir.

7.4 The Strategies:

The sanctuary has good approach from Hubli, Sirsi, Haveri and Dandeli for tourists. A reservoir is constructed across Tayyvana Halla in 1992. Artificial islands are created in the reservoir for nesting and breeding, lot of winter migratory birds visits this sanctuary from November to February, lot of visitors visit this sanctuary.

Attiveri Bird Sanctuary is open to tourists throughout the year Tourists are allowed inside between 6.00 A.M. and 6.00 P.M. Thus the regulation of visitors is planned to minimize the disturbance during sensitive periods.

Tourism activities are taken up from the funds released by tourism department. A dormitory consist of two halls and two rooms on the 1st floor are built up for visitors accommodation. A cafeteria is also constructed to provide refreshment to the visitors.

The use of plastic inside the sanctuary area is strictly banned. Adequate number of caution boards area displayed.

To create awareness and educate the visitors laminated boards are displayed regarding migratory birds. This has to be updated by constructing a interpretation centre with audio visual equipments.

To generate resource for management of park there should be a periodical change in fees.

Entrance Fees:

Indian: Rs. 20/person

Foreigners Rs. 75/person

Camara charges:

Still camara: Rs.50

Handycam:Rs.100/-day

Larger video camera :Rs.200/-day

It is also proposed to make wide publicity by displaying information about the sanctuary at suitable places. It is also planned to bring brochures with valid information regarding the history and birds visiting the sanctuary. Barricades have to be raised round the garden area. Repairs to ponds and paragolas and sitting benches have to be done periodically. The approach road which is widened and asphalted. The vehicle parking area has to be metalled and asphalted. The boatmen are to be given proper training as guides by resource persons.

The proposed Budget provision is as per Annexure-VI.

Chapter – 8

ECO-DEVELOPMENT

8.1 Objectives:

- i) To involve the fringe villagers in and around the sanctuary, in PA planning, protection and conservation by educating them on the values of the protected area.
- ii) Developing site specific eco-development micro-plans with the participation of the villagers.
- iii) Develop alternate sources of bio-mass and income to divert pressure on the protected area while strengthening the economic condition of the villagers.
- iv) When villagers away from the traditional dependence of protected area by providing alternate sources of livelihood and training.
- v) To build up awareness among the villagers towards conservation by appropriate education programs.

8.2 Specific Issues:

- i) Traditionally the villagers surrounding the sanctuary have been dependant on the protected area for fuel-wood and small timber.
- ii) With no grazing grounds in the villages they are dependent on the Park to graze their animals as well as to collect fodder.
- iii) Relationship between Park staff and villagers are not very cordial because of restrictions imposed. Hence it is required to ensure cordial relationship.

8.3 Broad Strategies:

Dependence of villagers for small timber, fuel wood, grazing grounds on protected area has to be addressed properly. Attiveri Bird Sanctuary surrounded by 9 villages with nearly 10000 population. Following activities may be taken up as a strategy for lessening the dependency of neighboring village community on park area and ensure cordial relationship with them.

- 1) To reduce the dependency on firewood; fuel efficient smokeless chulas, biogas and LPG have to be provided.

- 2) To discourage the farmers in traditional use of chemical fertilizers and pesticides which inturn kill the insects, frogs etc., being the feed for birds, wormy compost pits and technique of organic farming and usage of bio pesticides may be provided.
- 3) Providing safe drinking water by digging borewells to improve hygiene and health of the villagers and also to avoid the women from walking long distance in search of water.
- 4) To supply fruit yielding, medicinal and agro forestry species of plants to attain self sustainability and generate income in course of time.
- 5) Improvement of cattle by artificial insemination and replacement existing low yielding milch cattle with high yielding ones is to be done to reduce the number of cattle.
- 6) Stall feeding has to be encouraged through introduction of improved fodder varieties for high yielding milch animals so as to reduce the incidence of grazing.

8.4 Monitoring and evaluation:

The monitoring of eco-development activities are important to achieve the annual physical and financial targets, the output and effects until the beneficiaries reach a position of maintaining and continuing the programmed activities.

The evaluation of the impact of eco-development on the sanctuary area and on surrounding area held in further planning.

The proposed Budget provision is as per Annexure-VII.

CHAPTER-9

RESEARCH, MONITORING AND TRAINING

9.1 Research and Monitoring:

As mentioned earlier, research has had a very low priority in the PA s of the State. Higher order investigations can be developed through consultancy programmes with Universities, specialist Institutions and through contractual arrangements. A portion of the land may be utilized to study population dynamics, seasonal migration and also bio-diversity etc., The documentation of all their process is a must.

9.1.1 Objectives:

- i) To reduce progressively the extent and degree of uncertainty on which management decisions and strategies are based.
- ii) To develop the consultative process and mechanism to ensure that research addresses information needs that are critical to this project and to the long term management of the sanctuary.
- iii) To develop interest in research and expertise in local institutions around the sanctuary.
- iv) To ensure that sanctuary supports and attracts sustained research that would meet the information needs from time to time.

9.1.2 Research Facilities:

The sanctuary has no basic facilities for research. To start with, a field laboratory or research station with Researcher is very essential. The laboratory should be equipped with basic equipments like computers, refrigerator, microscopes, oven, weighing machine, veterinary instruments etc. A vehicle has to be kept at the researchers control, enabling him to coordinate all the research works and their findings. Additional field stations should also be set up based on the requirements of research.

9.1.3 Topics for Research:

The following topics can be considered for research in the sanctuary, priority wise:

- i) Assessment of bio-diversity of lesser known and functionally important groups.
- ii) Microbial ecology of lentic/lotic aquatic bodies.

- iii) Survey of ticks and mosquitoes.
- iv) Floristic diversity and regenerations studies.
- v) Communicable disease and health monitoring in both migratory birds and surrounding village and commercial poultry birds.
- vi) Monitoring the impact of fire occurrence and fire prevention activities on habitat and species distribution.
- vii) Eco-tourism strategy, visitor management interpretation centre, publicity and propaganda.
- viii) Assessment of bird diversity in the sanctuary.
- ix) Human impact due to grazing, collection of fuel wood, bamboo and small timber.
- x) Habitat degradation and infestation of exotic weeds.
- xi) Migration and seasonal movement patterns of birds.
- xii) Carrying capacity of the sanctuary for migratory birds.
- xiii) Impact of seasonal flood on bio-diversity.
- xiv) Monitoring prey population in the forage grounds.

9.1.4 Monitoring:

Monitoring through a consistent set of measures would periodically do the following:

- i) Provide an integrated view of the present status of bio-diversity in the sanctuary.
- ii) Provide a view of socio-economic conditions and interactions between PA and people around the PA that are relevant to the project.
- iii) Evaluate whether the project activities have had the desired effect.
- iv) Identify inadequacy, ineffectiveness which cause non-compliance with expected values.

It is not necessary that all monitoring and research is to be carried out by the researchers. Monitoring can also be done by the field staff on a day to day basis of :

- i) Birds health and diseases by the departmental veterinarian.

- ii) Impact of tourism.
- iii) Feeding behavior of avian fauna.
- iv) Migration pattern of birds.
- v) Changes in vegetation to be monitored as per ecologists advice.
- vi) Thinning, removing of exotic species like subabul.
- vii) Interaction between people inside & outside the PA.
- viii) Whether project activities have had the desired effect.

9.2 .Training:

Generally, all the staff posted in the sanctuary, that is watcher upwards would have undergone professional training in forestry before joining the department. But as Wildlife management has, over the years encompassed many disciplines like ecology, tourism, public relations, Wildlife management , land use planning etc, it is very necessary to carry out refresher courses for all the staff at various level and bring them abreast of the day to day requirements.

9.2.1 Study tours:

It is worth while if study tours are conducted for the staff of PA to visit other PAs within and outside the State to learn how other PAs are managed.

9.2.2 Training programmes of Wildlife Institute-Dehradun :

Wildlife Institute of India runs many refresher courses and workshops in different PAs all over the Country. This should be taken advantage of and officers from the PAs sent regularly to attend these courses. Following are some of the courses conducted by the Wildlife Institute of India.

Table: Some courses conducted by the Wildlife Institute of India.

| <u>Dehradun</u> | | | |
|------------------------|---|----------|-------------|
| Sl.No | Name of Course | Duration | Eligibility |
| 1. | Post graduate diploma course in wildlife management | 9 months | DCF & ACF |
| 2. | Certificate course in wildlife management | 3 months | RFO |

| | | | |
|----|---|-----------|-----------|
| 3. | Wildlife management training | 3 months | FR & FG |
| 4. | Wireless operation and weapon training at police academy. | - | FR & FG |
| 5. | Tourism management ,receptionist, interpretation. | - | ACF & RFO |
| 6. | Wildlife health, chemical immobilization, power fencing | - | RFO & FR |
| 7. | Capsule course in wildlife | 7-15 days | CCF & CF |
| 8. | Remote sensing at IIRS-Dehradun | 10 months | DCF & ACF |

9.2.3.Strengthening Prosecution capabilities of the staff:

Several of our offence cases, fail in courts of law due to improper recording, inadequate processing and wrong interpretation of legal provisions. Prosecution capabilities of the staff are required to be strengthened. A few sample cases of both success and failure can be selected by the officers of the Forest Department and with the assistance of a Legal Advisor, discussed with other lower staff periodically, so that a set of guidelines are prepared as to how a case is to be dealt with. A week training at Gungargatti by legal experts will be an advantage.

The proposed Budget provision is as per Annexure-IX.

CHAPTER -10

ORGANISATION AND ADMINISTRATION

10.1 Structure and Responsibilities:

This sanctuary is under the administrative control of Principal Chief Conservator of Forests, Wildlife, Bangalore and Conservator of Forests, Dharwad Circle, Dharwad. At present the Range Forest Officer in charge of Ranebennur Black Buck Sanctuary looks after the activities of this Sanctuary too, under the supervision and control of Assistant Conservator of Forests, Wildlife Preservation Sub-Division, Ranebennur.

For proper Management of the Sanctuary provision of one Forester and two Forest Guards along with their residential accommodation near the Sanctuary is a must. The proposed organization pattern will be as follows:

Section Forester's establishment

| Sl. No. | Designation | Proposed | Existing | Required |
|---------|-----------------|----------|----------|----------|
| 1 | Forester | 1 | 1 | - |
| 2 | Forest Guards | 1 | - | 1 |
| 3 | Boat Drivers | 2 | 1 | 1 |
| 4 | Forest Watchers | 5 | 4 | 1 |
| 5 | Tourist Guide | 1 | 1 | - |
| 6 | House keeper | 1 | - | 1 |
| 7 | Sweeper | 1 | - | 1 |

The proposed Budget provision is as per Annexure-III.

10.2 Staff amenities:

Even though the sanctuary is small, construction of residential quarters and construction of cottages can be considered by acquiring forest land away from sanctuary area.

| Sl. No. | Type of residential building | Location | Proposed | Existing | Required |
|---------|----------------------------------|-------------------------|----------|----------|----------|
| 1 | Forest Guard and Forest watchers | Attiveri Bird sanctuary | 5 | - | 5 |

Protection of the sanctuary from illegal fishing and grazing etc., has to be taken on priority. As such there are no staff quarters construction of staff quarters can be taken up. The staff may be provided with walkie-talkies and other instruments like binoculars, weapons for effective patrolling.

CHAPTER-11

THE BUDGET

11,1 The Plan Budget

Proposed budgetary provisions for operations of management plan strategies are appended separately.

Background information and attributes

An area of 560 Acres comprising 532 acres in Mundgod & 28 acres in Kalghatagi taluks (2.226 sq. kms.) is declared as Attiveri Birds Sanctuary. Vide Notification No. FEE-17-FWL-1999 dtd: 17-8-2000. Notification enclosed vide Annexure VIII. The entire area is reserved forests comprising an enclosure of 12 acres Pvt. Land & a reservoir of 100.69 ha. The Length of the dam is 741 mtr, with a maximum water storage capacity of 5.4695 Million cubic meters and a mean storage capacity of 2.2627 Million cubic meters. The construction of Dam was completed during 1990, across the Tayavvanahall. During 1990 rains water was stored in the dam. The inundated trees bushes, (surrounded by the water) started attracting the birds. The birds started nesting on these trees and bushes. When this became routine, the area was protected as Bird sanctuary. It is estimated that nearly 300 pairs started nesting and roosting in the first year only i.e. during 1990. During 1991 nearly 1200 pairs came to make their home and breed young ones.

Regional analysis: Inside the Attiveri Birds Sanctuary only one village viz. Attiveri Gouli Doddi is situated. There are about 6 families of goulies residing with their cattle. There is no threat to the sanctuary from these goulies. Hence, there is no necessity of shifting to these families from the sanctuary. Following villages are situated round about the sanctuary:

- 1) Attiveri,
- 2) Hunagund,
- 3) Arishingeri
- 4) Vadagatti and
- 5) Agadi.

(All belongs to Mungod Taluk of Uttara Kannada Dist)

- 1) Nelliharvi,
- 2) Astikatta.
- 3) Bendakatta
- 4) Beruvalli

(All belongs to Kalaghatagi Taluk of Dharwad Dist)

Birds of Attiveri

| | |
|-----|-------------------------|
| 1. | Little Grebe |
| 2. | Indian Shag |
| 3. | Little Cormorant |
| 4. | Darter Or Snake Bird |
| 5. | Grey Heron |
| 6. | Purple Heron |
| 7. | Little Green Heron |
| 8. | Pond Heron |
| 9. | Cattle Egret |
| 10. | Large Egret |
| 11. | Smaller Or Median Egret |
| 12. | Little Egret |
| 13. | Painted Stork |
| 14. | Open Billed Stork |
| 15. | White Necked Stork |
| 16. | Lesser Adjutant |
| 17. | White Ibis |
| 18. | Glossy Ibis |
| 19. | Spoon Bill |
| 20. | Lesser Whistling Teal |
| 21. | Pintail |
| 22. | Spot Bill Duck |
| 23. | Garganey |
| 24. | Shoveller |
| 25. | Combduck |
| 26. | Marsh Harrier |
| 27. | Osprey |
| 28. | White Breasted Waterhen |
| 29. | Coot |
| 30. | Pheasant Tailed Jacana |
| 31. | Bronze Winged Jacana |
| 32. | Red Wattled Lapwing |
| 33. | Little Ringed Plover |
| 34. | Spotted Sand Piper |
| 35. | Common Sandpiper |

| | |
|-----|---------------------------|
| 36. | Little Stint |
| 37. | Indian Black Winged Stilt |
| 38. | Stone Curlew |
| 39. | Indian Riverlern |
| 40. | Black Ibis |

II. ARBOREAL AND TERRESTRIAL BIRD

| | |
|-----|---|
| 41. | Black Winged Kite |
| 42. | Parrah Kite |
| 43. | Brahminy Kite |
| 44. | Shikra |
| 45. | White Barked Vulture Or Bengal Valutire |
| 46. | White Scavenger Valutre |
| 47. | Indian Grey Partridge |
| 48. | Grey Jungle Fowl |
| 49. | Indian Peafowl |
| 50. | Indian Spotted Dove |
| 51. | Blue Rock Pigeon |
| 52. | Indian Ring Dove |
| 53. | Rose Ringed Parkeet |
| 54. | Plum Or Blossom Headed Parkeet |
| 55. | Pied Crested Cuckoo |
| 56. | Common Hawk |
| 57. | Indian Koel |
| 58. | Crow Pheasant Or Coucal |
| 59. | Spotted Owlet |
| 60. | Common Indian Night Jar |
| 61. | Crested Tree Swift |
| 62. | Indian Pied King Fisher |
| 63. | Small Blue Kingfisher |
| 64. | White Throated Kingfisher |
| 65. | Blue Tailed Bee Eater |
| 66. | Small Green Bee Eater |
| 67. | Blue Jay Or Indian Roller |
| 68. | Hoopoe |
| 69. | Malbar Pied Hornbill |
| 70. | Common Grey Hornbill |

| | |
|------|---|
| 71. | Crimson Breasted Barbet Or Copper Smith |
| 72. | Large Green Barbet |
| 73. | Lesser Golden Backed Wood Pecker |
| 74. | Marhatta Or Yellow Fronted Pied Wood Pecker |
| 75. | Brown- Crowned-Pigmy Woodpecker |
| 76. | Malbar Crested Lark |
| 77. | Indian Small Sky Lark |
| 78. | Indian Wire Tailed Swallow |
| 79. | Red Rumped Swallow |
| 80. | Eastern Swallow |
| 81. | Rufous Backed Shrike Or Long Tailed Shrike |
| 82. | Bay Backed Shrike |
| 83. | Indian Golden Oriole |
| 84. | Black Drongo Or King Crow L |
| 85. | Black Headed Myna |
| 86. | Rosy Paster Or Rosy Starling |
| 87. | Indian Myna |
| 88. | Jungle Myna |
| 89. | Indian Tree Pie |
| 90. | Indian House Crow |
| 91. | Indian Jungle Crow |
| 92. | Common Wood Shrike |
| 93. | Malbar Small Minivet |
| 94. | Scarlet Minivet |
| 95. | Black Headed Cuckoo |
| 96. | Peninsular Indian Lora |
| 97. | Gold Fronted Chloropsis |
| 98. | Gold Mantled Chloropsis |
| 99. | Red Whiskered Bulbul |
| 100. | Red Vented Bulbulw |
| 101. | White Browd Bulbul |
| 102. | Yellow Eyed Babbler |
| 103. | White Headed Babbler |
| 104. | Jungle Babbler |
| 105. | Tickell's Bule Flycatcher |
| 106. | Veriditer Fly Catcher |
| 107. | Paradise Fly Catcher |

| | |
|------|--|
| 108. | White Browed Fantail Flycatcher |
| 109. | White Spotted Fantail Flycatcher |
| 110. | Streaked Fantail Warbler |
| 111. | Ashy Wren Warbler |
| 112. | Indian Tailor Bird |
| 113. | Indian Mugpie Robin |
| 114. | Malbar Shama |
| 115. | Indian Robin |
| 116. | Pied Bush Chat |
| 117. | Indian Grey Tit |
| 118. | Yellow Checked Tit Or Black Lored Tit |
| 119. | Indian Tree Pipit |
| 120. | Indian Paddy Field Pipit |
| 121. | Large Pied Wagtail Or White Eye Browed Wagtail |
| 122. | Grey Wagtail |
| 123. | Grey Headed Yellow Wagtail |
| 124. | White Wagtail |
| 125. | Tickells Flower Pecker |
| 126. | Purple Rumped Sunbird |
| 127. | Purple Sunbird |
| 128. | House Sparrow |
| 129. | Indian Baya Weaver Bird |
| 130. | White Throated Munia |
| 131. | Spotted Munia |
| 132. | White Backed Munia |
| 133. | Blyth's Reed Warbler |

Annexure-1**Important physical achievements during the past management plans period from 2001-02 to 2008-09**

| Sl No. | Name of the work | Quatity |
|---------------|--|----------------|
| 1 | Construction of 10000 liters capacity water tank | 1 No. |
| 2 | Drilling of bore well | 1 No. |
| 3 | Construction of community hall | 1 No. |
| 4 | Distribution of grafted mango seedling to the village formers | 5033 No. |
| 5 | Formation of small artificial islands | 13 No. |
| 6 | Erection of welcome arch board | 1 No. |
| 7 | Display of sign boards for publicity purpose | 12 No. |
| 8 | Construction of new toilet blocks for tourists | 2 No. |
| 9 | Construction of drinking water pond | 1 No. |
| 10 | Purchase of binoculars for tourists for bird watching | 3 No. |
| 11 | Erection of solar lamps | 5 No. |
| 12 | Construction of stroll ramps | 150 mtr |
| 13 | Providing arch shape foot bridge near children park | 1 No. |
| 14 | Improvement of approach road to Attiveri bird sanctuary | 1.60 km |
| 15 | Purchase of pedal boats | 2 No. |
| 16 | Raising of plantations | 20 hectare |
| 17 | Survey and demarcation | 3 km |
| 18 | Providing gate at the tank bund entrance | 1 No. |
| 19 | Construction of check dam | 3 No. |
| 20 | Formation of mini nala bund | 1 No. |
| 21 | Providing chain link mesh fencing around the park at Attiveri bird sanctuary | 375 sqm |
| 22 | Construction of cafeteria toilet block | 1 No. |
| 23 | Construction of dormitory at Attiveri bird sanctuary | 1 No. |
| 24 | Construction of cafeteria canteen | 1 No. |
| 25 | Construction of storm water drain at Attiveri bird sanctuary | 60 mtr |
| 26 | Construction of information center | 1 No. |
| 27 | Construction of paragola | 4 No. |

Annexure-II

Financial targets and achievements of the past management plans period from 2001-02 to 2008-09

| Sl No. | Budget Head | 2001-02 | | 2002-03 | | 2003-04 | | 2004-05 | | 2005-06 | | 2006-07 | | 2007-08 | | 2008-09 | |
|--------------|---|--------------|--------------|-------------|-------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| | | Tar | Ach | Tar | Ach | Tar | Ach | Tar | Ach | Tar | Ach | Tar | Ach | Tar | Ach | Tar | Ach |
| 1 | 2406-02-110-0-47 CSS Attiveri (state) | - | - | - | - | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 | 4.00 | 4.50 | 4.50 | 3.50 | 3.50 | 4.50 | 4.50 |
| 2 | 2406-02-110-0-47 CSS Attiveri (central) | 15.00 | 15.00 | 9.76 | 7.00 | 11.10 | 11.098 | 5.70 | 5.70 | 6.75 | 6.75 | 18.81 | 17.51 | 24.20 | 16.30 | 16.388 | 16.388 |
| 3 | Rural tourism scheme for development of Attiveri bird sanctuary | - | - | - | - | 18.00 | - | 18.00 | - | 18.00 | 18.00 | - | - | - | - | - | - |
| Total | | 15.00 | 15.00 | 9.76 | 7.00 | 34.10 | 16.10 | 28.70 | 10.70 | 29.75 | 28.75 | 23.31 | 22.01 | 27.70 | 19.80 | 20.89 | 20.89 |

Annexure - III

Proposed budgetary provision for establishment for the period from 2009-10 to 2013-14

| Sl No | Particulars | No. of Post | Budget (Rs. in lakh) | | | | | Total |
|--------------|---------------|-------------|----------------------|-------------|-------------|-------------|-------------|--------------|
| | | | 2009-10 | 2010-11 | 2011-12 | 2012-13 | 2013-14 | |
| 1 | Foresters | 1 | 1.10 | 1.21 | 1.33 | 1.46 | 1.60 | 6.70 |
| 2 | Forest Guards | 1 | 0.97 | 1.06 | 1.17 | 1.29 | 1.42 | 5.91 |
| 3 | Boat Drivers | 2 | 0.74 | 0.81 | 0.89 | 0.98 | 1.08 | 4.50 |
| 4 | Helpers | 2 | 0.74 | 0.81 | 0.89 | 0.98 | 1.08 | 4.50 |
| 5 | Watchers | 5 | 1.49 | 1.63 | 1.79 | 1.97 | 2.13 | 9.01 |
| 6 | Tourist guide | 1 | 0.37 | 0.40 | 0.44 | 0.49 | 0.54 | 2.24 |
| 7 | House Keeper | 1 | 0.37 | 0.40 | 0.44 | 0.49 | 0.54 | 2.24 |
| 8 | Sweeper | 2 | 0.74 | 0.81 | 0.89 | 0.98 | 1.08 | 4.50 |
| Total | | 15 | 6.52 | 7.13 | 7.84 | 8.64 | 9.47 | 39.60 |

Annexure-IV

Proposed budgetary Provisions for boundary demarcation and Protection for the period from 2009-10 to 2013-14

| Sl No. | Particulars of works | 2009-10 | | 2010-11 | | 2011-12 | | 2012-13 | | 2013-14 | | Total | |
|--------------|---|---------|-------------|---------|-------------|---------|-------------|---------|-------------|---------|-------------|-------|-------------|
| | | Phy | Fin | Phy | Fin | Phy | Fin | Phy | Fin | Phy | Fin | Phy | Fin |
| I | Boudary Democration | | | | | | | | | | | | |
| 1 | Boundary consolidation by providing CPT | 1 km | 0.64 | 1 km | 0.64 | - | - | - | - | - | - | 2 km | 1.28 |
| 2 | Repair and maintainance of CPT | 1 km | 0.31 | 1 km | 0.34 | 1 km | 0.38 | 1 km | 0.41 | 1 km | 0.45 | 5 km | 1.89 |
| 3 | Fixing of boundary stone | 5 km | 1.10 | 5 km | 1.10 | - | - | - | - | - | - | 10 km | 2.20 |
| Total | | | 2.05 | | 2.08 | | 0.38 | | 0.41 | | 0.45 | | 5.37 |

Annexure-V

Proposed budgetary Provisions for Habitate Development Units for the period from 2009-10 to 2013-14

| Sl No. | Particulars of works | 2009-10 | | 2010-11 | | 2011-12 | | 2012-13 | | 2013-14 | | Total | |
|--------------|--|--------------------|--------------|--------------------|--------------|--------------------|--------------|--------------------|--------------|--------------------|--------------|---------------------|---------------|
| | | Phy | Fin | Phy | Fin | Phy | Fin | Phy | Fin | Phy | Fin | Phy | Fin |
| I | Enrichment of planting | | | | | | | | | | | | |
| 1 | Raising of foreshore plantation and maintenance | 10 ha | 4.00 | 20 ha | 4.40 | 20 ha | 1.50 | 20 ha | 1.50 | 10 ha | 1.00 | 20 ha | 12.40 |
| 2 | Removal of unwanted weeds like lantana etc., | 10 ha | 0.15 | 10 ha | 0.17 | 10 ha | 0.18 | 10 ha | 0.20 | 10 ha | 0.22 | 50 ha | 0.92 |
| 3 | Formation of artificial islands | 2 No. / 8000 cum | 16.00 | 2 No. / 8000 cum | 17.60 | 2 No. / 8000 cum | 19.36 | 2 No. / 8000 cum | 21.29 | 2 No. / 8000 cum | 23.42 | 10 No. / 40000 cum | 97.67 |
| 4 | Formation water channels around the artificial islands | 200 rmt / 1000 cum | 0.50 | 200 rmt / 1000 cum | 0.55 | 200 rmt / 1000 cum | 0.60 | 200 rmt / 1000 cum | 0.66 | 200 rmt / 1000 cum | 0.73 | 1000 rmt / 5000 cum | 3.04 |
| 5 | Maintenance of existing islands | 15 No.'s | 1.00 | 17 No. | 1.00 | 19 No.'s | 1.00 | 21 No. | 1.00 | 23 No. | 1.00 | 23 No. | 5.00 |
| 6 | Providing artificial nests | LS | 0.50 | LS | 0.50 | LS | 0.50 | - | - | - | - | LS | 1.50 |
| 7 | Creation of view lines | 2 km | 0.07 | 2 km | 0.08 | 2 km | 0.09 | - | - | - | - | 6 km | 0.24 |
| 8 | Engaging fire watcher in summer season | 5 No. | 0.77 | 5 No. | 0.84 | 5 No. | 0.93 | 5 No. | 1.02 | 5 No. | 1.13 | 5 No. | 4.69 |
| 9 | Creation of fire lines and maintenance | 6 km | 0.07 | 6 km | 0.08 | 6 km | 0.09 | 6 km | 0.03 | 6 km | 0.04 | 6 km | 0.31 |
| 10 | Engaging protection watcher | 5 No. | 1.86 | 5 No. | 2.04 | 5 No. | 2.25 | 5 No. | 2.47 | 5 No. | 2.72 | 5 No | 11.34 |
| Total | | | 24.92 | | 27.26 | | 26.50 | | 28.17 | | 30.26 | | 137.11 |

Annexure-VI

Proposed budgetary Provisions for Eco Tourism Works and Providing facilities to the tourists period from 2009-10 to 2013-14

| Sl No. | Particulars of works | 2009-10 | | 2010-11 | | 2011-12 | | 2012-13 | | 2013-14 | | Total | |
|--------------|--|---------|--------------|---------|--------------|---------|--------------|---------|--------------|---------|--------------|--------|---------------|
| | | Phy | Fin | Phy | Fin | Phy | Fin | Phy | Fin | Phy | Fin | Phy | Fin |
| 1 | Formation of trailing/tracking path | 5 km | 5.00 | 5 km | 5.00 | - | - | - | - | - | - | 10 km | 10.00 |
| 2 | Construction of bridge for crossing the nalas | 5 Nos | 5.00 | 5 Nos | 5.50 | 5 Nos | 6.00 | 5 Nos | 6.65 | 5 Nos | 7.30 | 25 Nos | 30.45 |
| 3 | Providing tented accommodation | 2 Nos | 8.00 | 2 Nos | 9.68 | 2 Nos | 10.6 | 2 Nos | 11.7 | 2 Nos | 12.9 | 10 Nos | 52.91 |
| 4 | Construction of toilet blocks | LS | 2.00 | LS | 2.00 | - | - | - | - | - | - | LS | 4.00 |
| 5 | Digging of bore well | 1 No. | 1.50 | - | - | - | - | - | - | - | - | 1 No. | 1.50 |
| 6 | Providing drinking water facilities | LS | 2.00 | LS | 2.00 | - | - | - | - | - | - | LS | 4.00 |
| 7 | Engaging boat driver cum guide | 2 Nos | 0.75 | 2 Nos | 0.83 | 2 Nos | 0.91 | 2 Nos | 1 | 2 Nos | 1.1 | 2 Nos | 4.59 |
| 8 | Construction of hides / watch towers to watch the birds | 5 Nos | 2.50 | - | - | - | - | - | - | - | - | 5 Nos | 2.50 |
| 9 | Improvement of kinder garden | LS | 3.00 | LS | 0.50 | LS | 0.50 | LS | 0.50 | LS | 0.50 | LS | 5.00 |
| 10 | Repair and maintenance of sign boards | LS | 0.50 | LS | 0.50 | LS | 0.50 | LS | 0.50 | LS | 0.50 | LS | 2.50 |
| 11 | Improvement and maintenance of approach road | 1.6 km | 1.00 | 1.6 km | 1 | 1.6 km | 8.00 | 1.6 km | 1.00 | 1.6 km | 1.00 | 1.6 km | 12.00 |
| 12 | Maintenance of dormitory, cafeteria, tent house etc., | LS | 1.00 | LS | 1.00 | LS | 1.00 | LS | 1.00 | LS | 1.00 | LS | 5.00 |
| 13 | Electricity charges | LS | 2.00 | LS | 0.50 | LS | 0.50 | LS | 0.50 | LS | 0.50 | LS | 4.00 |
| 14 | Providing solar heaters, lanterns and maintenance at nature camp | LS | 10.00 | LS | 0.50 | LS | 0.50 | LS | 0.50 | LS | 0.50 | LS | 12.00 |
| Total | | | 44.25 | | 29.01 | | 28.55 | | 23.36 | | 25.28 | | 150.45 |

Annexure-VII

Proposed budgetary Provisions for Eco Development Works for the period from 2009-10 to 2013-14

| SI No. | Particulars of works | 2009-10 | | 2010-11 | | 2011-12 | | 2012-13 | | 2013-14 | | Total | |
|--------------|---|-----------|--------------|----------|--------------|----------|--------------|---------|-------------|---------|-------------|----------|--------------|
| | | Phy | Fin | Phy | Fin | Phy | Fin | Phy | Fin | Phy | Fin | Phy | Fin |
| 1 | Construction of wormy compost pits | 100 pits | 5.00 | 100 pits | 5.50 | 100 pits | 6.05 | - | - | - | - | 500 pits | 16.55 |
| 2 | Distribution of grafted seedlings | LS | 0.50 | LS | 0.50 | LS | 0.50 | LS | 0.50 | LS | 0.50 | LS | 2.50 |
| 3 | Providing safe drinking water by digging bore wells | 2 No.'s | 1.62 | 2 No.'s | 1.62 | - | - | - | - | - | - | 4 Nos | 3.24 |
| 4 | Providing solar street light | 5 No.'s | 1.50 | 5 Nos | 1.50 | 5 Nos | 1.50 | 5 No | 1.50 | 5 Nos | 1.50 | 25 Nos | 7.50 |
| 5 | Providing LPG stoves | 100 No.'s | 1.70 | 100 Nos | 1.87 | 100 Nos | 2.05 | 100 Nos | 2.26 | 100 No. | 2.49 | 500 Nos | 10.37 |
| 6 | Awareness creation programmes | LS | 0.50 | LS | 0.50 | LS | 0.50 | LS | 0.50 | LS | 0.50 | LS | 2.50 |
| Total | | | 10.82 | | 11.49 | | 10.60 | | 4.76 | | 4.99 | | 42.66 |

Annexure-VIII

Proposed budgetary Provisions for Publicity and Awareness for the period from 2009-10 to 2013-14

| Sl No. | Particulars of works | 2009-10 | | 2010-11 | | 2011-12 | | 2012-13 | | 2013-14 | | Total | |
|--------------|---|---------|-------------|---------|-------------|---------|-------------|---------|-------------|---------|-------------|-------|--------------|
| | | Phy | Fin | Phy | Fin | Phy | Fin | Phy | Fin | Phy | Fin | Phy | Fin |
| 1 | Providing signage and maintenance | 10 Nos | 0.50 | 15 Nos | 0.75 | - | - | LS | 0.50 | LS | 0.50 | LS | 2.25 |
| 2 | Providing hoardings at important places | 2 Nos | 2.00 | 2 Nos | 2.00 | 2 Nos | 2.00 | 1 No. | 1.00 | 1 No. | 1.00 | 8 No. | 8.00 |
| 3 | Printing of vouchers and hand bill etc. | LS | 0.50 | LS | 0.50 | LS | 0.50 | LS | 0.50 | LS | 0.50 | LS | 2.50 |
| 4 | Conducting awareness program for school children and general public | LS | 0.50 | LS | 0.50 | LS | 0.50 | LS | 0.50 | LS | 0.50 | LS | 2.50 |
| Total | | | 3.50 | | 3.75 | | 3.00 | | 2.50 | | 2.50 | | 15.25 |

Annexure-IX

Proposed budgetary Provisions for Research, Monitoring and Training for the period from 2009-10 to 2013-14

| Sl No. | Particulars of works | 2009-10 | | 2010-11 | | 2011-12 | | 2012-13 | | 2013-14 | | Total | |
|--------------|---|---------|-------------|---------|-------------|---------|-------------|---------|-------------|---------|-------------|-------|-------------|
| | | Phy | Fin | Phy | Fin | Phy | Fin | Phy | Fin | Phy | Fin | Phy | Fin |
| 1 | Conducting census of wildlife | LS | 0.25 | - | - | - | - | - | - | LS | 0.25 | LS | 0.50 |
| 2 | Conducting study tours for staff | LS | 0.50 | LS | 0.50 | LS | 0.50 | LS | 0.50 | LS | 0.50 | LS | 2.50 |
| 3 | Conducting of seminars, workshops | LS | 0.25 | LS | 0.25 | LS | 0.25 | LS | 0.25 | LS | 0.25 | LS | 1.25 |
| 4 | Conducting awareness program for school children and general public | LS | 0.50 | LS | 0.50 | LS | 0.50 | LS | 0.50 | LS | 0.50 | LS | 2.50 |
| 5 | Payment to the consultancy experts for specific study assignments | LS | 0.50 | LS | 0.50 | LS | 0.50 | LS | 0.50 | LS | 0.50 | LS | 2.50 |
| Total | | | 2.00 | | 1.75 | | 1.75 | | 1.75 | | 2.00 | | 9.25 |

Annexure-X

Abstract of budget requirement of Attiveri bird sanctuary for the period 2009-10 to 2013-14

| SI No. | Particulars of works | 2009-10 | | 2010-11 | | 2011-12 | | 2012-13 | | 2013-14 | | Total | |
|--------------|---|---------|--------------|---------|--------------|---------|--------------|---------|--------------|---------|--------------|--------|---------------|
| | | Phy | Fin | Phy | Fin | Phy | Fin | Phy | Fin | Phy | Fin | Phy | Fin |
| 1 | Establishment (Annexure-III) | 10 Nos | 6.52 | 10 Nos | 7.13 | 10 Nos | 7.84 | 10 Nos | 8.64 | 10 Nos | 9.47 | 10 Nos | 39.60 |
| 2 | Boundary demarcation and protection (Annexure-IV) | LS | 2.05 | LS | 2.08 | LS | 0.38 | LS | 0.41 | LS | 0.45 | LS | 5.37 |
| 3 | Habitat development works (Annexure-V) | LS | 24.92 | LS | 27.26 | LS | 26.50 | LS | 28.17 | LS | 30.26 | LS | 137.11 |
| 4 | Development of eco-tourism and providing facilities to the tourists (Annexure-VI) | LS | 44.25 | LS | 29.01 | LS | 28.55 | LS | 23.36 | LS | 25.28 | LS | 150.45 |
| 5 | Eco-development (Annexure-VII) | LS | 10.82 | LS | 11.49 | LS | 10.60 | LS | 4.76 | LS | 4.99 | LS | 42.66 |
| 6 | Publicity and awareness (Annexure-VIII) | LS | 3.50 | LS | 3.75 | LS | 3.00 | LS | 2.50 | LS | 2.50 | LS | 15.25 |
| 7 | Research, Monitoring and Training (Annexure-IX) | LS | 2.00 | LS | 1.75 | LS | 1.75 | LS | 1.75 | LS | 2.00 | LS | 9.25 |
| Total | | | 94.06 | | 82.47 | | 78.62 | | 69.59 | | 74.95 | | 399.69 |