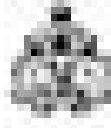


Government of Karnataka



Karnataka Forest Department

**ANNUAL PLAN OF OPERATION FOR UTILIZATION OF State CAMPA  
FUNDS**

**FOR THE YEAR 2010-11**

Approved by

**STEERING COMMITTEE OF STATE CAMPA**



**Karnataka Forest Department**

Aranya Bhawan

18<sup>th</sup> Cross Road Malleshwaram

Bangalore 566003

## Executive Summary

- For a developing country like India it is important to pursue a path of sustainable development, regulating indiscriminate diversion/use of forest land for the developmental needs of the state / people and the nation at large. Forest Conservation Act 1980 is a unique piece of legislation and a regulatory mechanism which reflects the collective will of the nation to protect its rich biodiversity and natural heritage and that permits only unavoidable use of forest land for various developmental purposes. Remarkable feature of this act is that it is regulatory and not prohibitory. Since inception the Act has facilitated developmental activities like construction of power projects, irrigation projects etc.
- Diversion, however minimum it may be has to be compensated by afforestation. Also net present value of the forest-diverted needs to be paid up by the user agency. Hon'ble Supreme Court order 30-10-2002 directed for creation of a body for management of funds, thus collected.
- Pursuant to the constitution of Compensatory Afforestation Fund Management and Planning Authority by Government of India and State Steering Committee and State Management Committee, the State Government has transferred Rs 363.296 crores in to the account of CAMPA.
- A workshop of Senior Officers was organized on 22-08-2006 to decide the modalities for preparation of a project for the utilization of funds with CAMPA. Based upon the discussions in the workshop a draft project proposal was prepared and placed before State Management Committee.
- The State Management Committee met on 16<sup>th</sup> March 2007 and approved the draft plan for Rs 567.52 crores and Action Plan for 2007-08 for Rs 129.63 crores.
- The State Steering Committee under the Chairmanship of the Chief Secretary to Government of Karnataka in its First Meeting held on 09-05-2007 has accorded concurrence to the Project Report for Rs.567.52 crores and the Annual Plan for 2007-08 for Rs.129.63 crores.
- The MOEF in its letter dated: 21-7-2009 has issued directions to redraw the proposals and to get it approved by the State Steering committee keeping in view the guidelines on State CAMPA issued on 2-7-2009.
- Accordingly a meeting of the senior officers to the Forest Department was convened on 11.12.2009 to discuss and finalise the activities to be under taken under State CAMPA. After discussing in length it was decided to prepare Annual Plan of operations for the year 2009-10 for the amount of Rs 58.55 crores already released by Adhoc CAMPA, and place before the Steering Committee for approval.

- The Executive Committee Meeting was convened on 10.02.2009 under the Chairmanship of Principal Chief Conservator of Forests (Head of Forest Force). Detailed discussions were held and various datasheets were discussed in length. After due deliberations the Annual Plan of Operations for the year 2009-10 was finalized. It was decided to place it before the Steering Committee of State CAMPA for approval.
- The Steering Committee meeting was convened on 01.03.2010 under the chairmanship of Chief Secretary, Government of Karnataka. Detailed discussions were held and various works and data sheets and components were discussed in length. After due deliberations the Annual plan of operations for the year 2009-10 was finalized for Rs. 2981.63 lakhs only. Further the Chief Secretary to Government of Karnataka and Chairman, Steering Committee for State CAMPA has gave direction to the Executive Committee to prepare the supplementary APO for the balance amount of Rs. 2873.37 lakhs by incorporating concrete conservation measures. The impact of which should be visible in the years to come and place it before the Steering Committee during April-May 2010 for approval.
- During the recent review meeting of State CAMPA the Hon'ble Chief Minister and Chief Secretary, Government of Karnataka gave instructions to the department to prepare the Action Plan for 2010-11 CAMPA in advance and get it approved by the Steering Committee in advance, so that planning and preparatory works can be taken in advance, it becomes easy to implement and complete the CAMPA project pertaining to 2010-11 by end of March 2011.
- Accordingly, a Executive meeting was convened on 31.05.2010 under the Chairmanship of Principal Chief Conservator of Forests (Head of Forest Force). Detailed discussions were held and various issues was also discussed in length, after due deliberations the Committee finalized 1) The Supplementary Action Plan of 2009-10 to be implemented during 2010-11. 2) The Action Plan for 2010-11. It was decided place these plans before the Steering Committee of State CAMPA for kind approval.

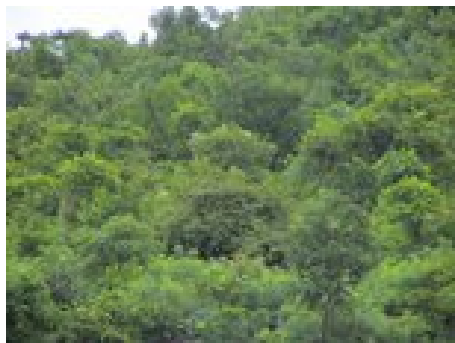
## CHAPATER –1

### INTRODUCTION

#### Karnataka: Its Forests

The State of Karnataka is located between 11 30' and 18 30' N latitudes and 74 10" and 78 30" E longitudes and covers an area of 1, 91,790 sq.kms. This accounts for 5.8 percent of the total geographic area of the country. It has 300 km. long coastline, which forms the western boundary. The state is bounded by Goa in the North-West, Maharashtra in the North, Andhra Pradesh in the East, Tamilnadu in the South and South-East and Kerala in the South-West. The Sate has now 30 administrative districts comprising of 175 taluks. Bangalore city is the State capital.

Karnataka is endowed with some of the most magnificent forests in the country. From the majestic evergreen forests of the Western Ghats to the scrub jungles of the plains, a wide variety of habitats exist with very typical flora and fauna, some of them endemic to the region. The Western Ghats, which covers about 60% of forest area of Karnataka, is recognized as one of the 18-mega bio-diversity hotspots of the world. The total recorded forest area of the State is 38,284.30 Sq. K. M., constituting 20% of the geographical area. The Western Ghats forests are rich in fauna and floral diversity and are very



valuable as both genetic and natural resources. Many plant and animal species are endemic to forests in the State. Several economically important species such as Sandalwood (*Santalum album*), Rosewood (*Dalbergia latifolia*), Teak (*Tectona grandis*), Honne (*Pterocarpus marsupium*), White Cedar (*Dysoxylon malabaricum*) and many non-timber and other medicinal plant species

grow naturally in the forests of Karnataka. Karnataka has a protected area network of 5 national parks (2431.300sq.km.), and 21 wildlife sanctuaries (3887.827sq.km), covering nearly 16% of its forest area. The forests of Karnataka are rich in biodiversity and support 25% of the elephant population and 10% of the tiger population of the country, in addition to numerous species of mammals, birds, butterflies, amphibians, reptiles, flowering plants etc.

The conservation of forest wealth has become a major challenge in the whole of the country, including the state of Karnataka, because of ever-increasing pressures on already declining forest resources. As a result of burgeoning population and consequent landlessness, the pressure on the available land resources has been increasing day by day leading to encroachment of forestland, which has become a major threat to the conservation of forest and

its resources. In many places, it has led to fragmentation of forest areas, honeycombing of forest areas, loss of corridor for movement of wild animals etc. Also in Karnataka there are valuable patches of private forests that require protection. Smuggling of timber and poaching of wild animals have now emerged as the most serious threats to the forest resources of the state. It has become difficult to manage these threats with the existing manpower, infrastructure and financial resources.

The extent and types of forest are as follows:

Sl. No	Type	Extent (ha.)	Percentage
1	Evergreen and Semi-evergreen	5,80,000	15.11
2	Moist Deciduous	5,78,000	14.96
3	Dry Deciduous	7,27,000	18.64
4	Scrub and Thorny	8,18,000	21.11
5	Un-wooded	11,25,430	30.18
	<b>Total</b>	<b>38,28,430</b>	<b>100.00</b>

According to their legal status, the forest area in Karnataka can be classified as follows:

Sl. No	Type of forests	Area (ha.)
1	Reserved Forests	28,68,996
2	Protected Forests	3,93,072
3	Un-classed Forests	5,23,100
4	Village Forests	12,420
5	Forests in private lands	30,842
	<b>Total Forests</b>	<b>38,28,430</b>

**Map Depicting Forest Divisions and Protected Areas of Karnataka**

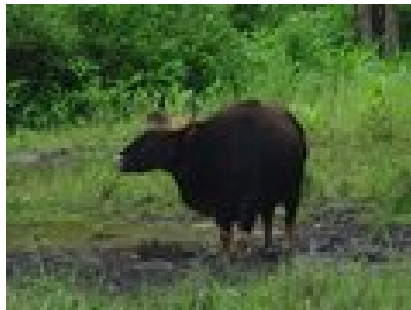


## Forests: Emerging Issues and Problems

As per the National Forest Policy objectives, every State has to endeavor to have at least 33% of its geographical area under vegetation cover. To achieve this it is not only necessary to bring new areas under afforestation activities but also it is necessary to protect and consolidate the existing forest areas.

There are several projects in vogue for the purpose of afforestation. The efforts of protecting, developing and consolidating natural forests are also going on. However, the infrastructure and resources are not in proportion to the problems faced and hence the results are not as expected.

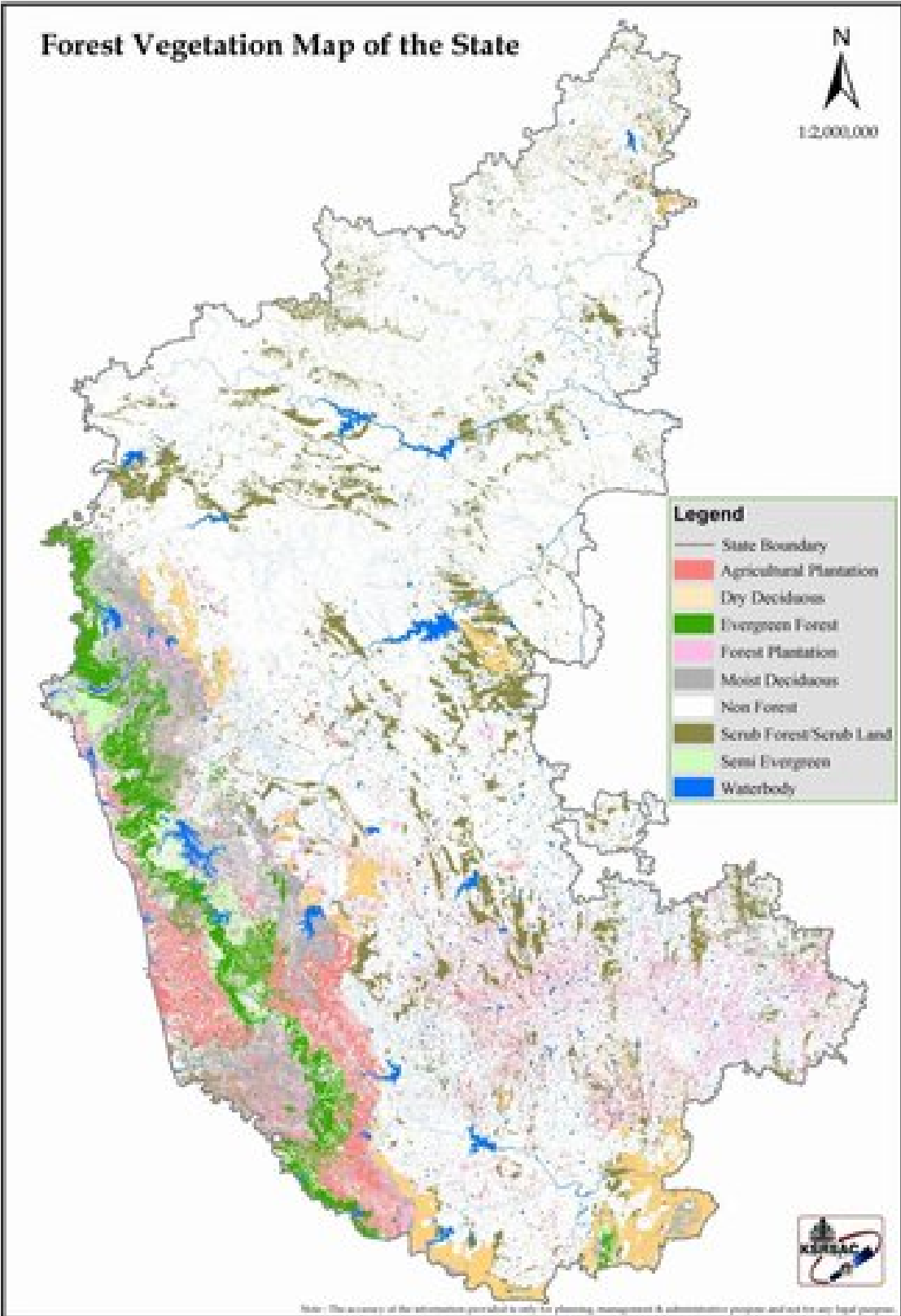
The infrastructure and staffing available with forest department is several decade old.



Increased biotic pressure and use of vehicles, modern communication equipments and weapons by forest offenders has made the task of forest protection indeed a difficult one. It is necessary that the infrastructure available to the staff should be of modern nature to meet the challenges in the field.

Ever increasing demand for forest produce like firewood, grasses, bamboos and minor forest produce (NTFP) from already shrinking forest areas has led to degradation of forest stocks in quality and quantity. In several areas the rootstock available if protected can regenerate into well-stocked biodiversity areas. In other areas valuable species have disappeared giving way to blanks and invasive species. Here apart from protection, augmentation of the stock with valuable species by way of planting is necessary. Thus by protecting the existing rootstock, production of quality planting material and planting it to augment the stock along with natural regeneration can improve the existing stock to a desirable level.

The forest areas notified or otherwise are widely scattered and are spread over most difficult terrains, their long boundaries make it difficult to maintain them and keep track of invading neighbourer resulting in encroachment of forestlands. For several decades survey and demarcation of forestlands has not been taken up. It is of utmost importance to know the extent and limits of the asset we manage before doing anything.





Hence, survey and demarcation of forest areas and consolidation of the same by creating barriers in the form of fences, boundary trenches, etc., is a necessity.

Karnataka is bestowed with very rich fauna & flora because of variety of habitats in the form of Western ghats, Eastern ghats, Eastern plains, and Coastal areas. Several of the species are endemic to the State. Increasing population and faster developmental activities as a part of globalization process have put immense pressure on the flora and fauna. Effective conservation measures taken up have resulted in protection and increase of wildlife populations in certain pockets. Invading trend of human activities combined with spilling of wildlife populations out of their habitat has resulted in severe man wildlife conflicts. To achieve co-existence of human and wildlife it is necessary to improve the wildlife habitat to contain the wildlife in the forest areas. It is also necessary to provide protective barriers not to allow the spilling of increased wildlife populations beyond the forest areas.



## CHAPTER 2

### PROJECT MANDATE AND APPROACH

#### The Compensatory Afforestation Fund Management and Planning Authority (CAMPA).

CAMPA has been constituted by the Ministry of Environment & Forest, Government of India through an order (Copy of the order annexed as **Annexure 1**) dated 23-04-2004 in pursuance of the Hon'ble Supreme Court's order dated 30-10-2002 in IA No.566, in Writ Petition (Civil) No.202 of 1995. CAMPA has been constituted for the purpose of management of money collected towards Net Present Value and any other money recoverable in pursuance of Hon'ble SC's order in this regard. The CAMPA functions through a Governing Body headed by the Hon'ble Minister for Environment and Forests, Government of India and an Executive Body headed by Director General of Forests. The Government of India's order prescribes that the money received towards NPV shall be used for **conservation, protection, regeneration and management of existing natural forests and wildlife, environmental services such as provision of wood, NTFP, fuel , fodder, tourism, climate regulation, recreations & educational services, research & training and other allied activities**

#### Management framework

To manage the affairs of CAMPA, Government of Karnataka has constituted State Governing Body, State Steering Committee and State Executive Committee. State Executive Committee under the Chairmanship of The Principal Chief Conservator of Forests shall prepare Annual Plan of Operations and oversee its implementation after its due approval. The State Steering Committee under the Chairmanship of the Chief Secretary to Government of Karnataka shall approve the APO and lay down rules & procedure for the functioning of its Executive Committee and ensure interdepartmental coordination. The State Executive Committee under the Chairmanship of PCCF shall prepare Annual Plan of Operations and overseas its implementation after its due approval. Copies of the orders constituting these committees are annexed as **annexure 3 & 4**.

## Funds available

In pursuance of the provisions of the above order of Government of India with regard to constitution of CAMPA, the Government of Karnataka has prepared this APO for the period 2010-11 for sanction by State Steering Committee. Total amount which has accrued from NPV collection and other money recoverable in pursuance of Hon'ble Supreme Court Order till this day amounts to **Rs. 646.44** crores transferred to Ad-Hoc CAMPA. Abstract of the forest area diverted and the collection of funds towards diversion of forest land for non forestry purpose is enclosed as **Annexure 5&6**. By present estimates of diversion projects under consideration, the annual accrual approximately shall be Rs.64 crores. Even by most conservative estimates the accruals to CAMPA shall be at least Rs.320 crores in next 5 years. With this Rs 646.44 crores in hand and Rs 320 crores expected accrual the money available for planning under this scheme shall be Rs 64.23 crores for this year.

## Annual Outlay

The APO is prepared for the year 2010-11 for an amount of **Rs. 64.23 crores** respectively. From the next year onwards Annual Plans shall be submitted depending on spillover of the previous year and fresh works.

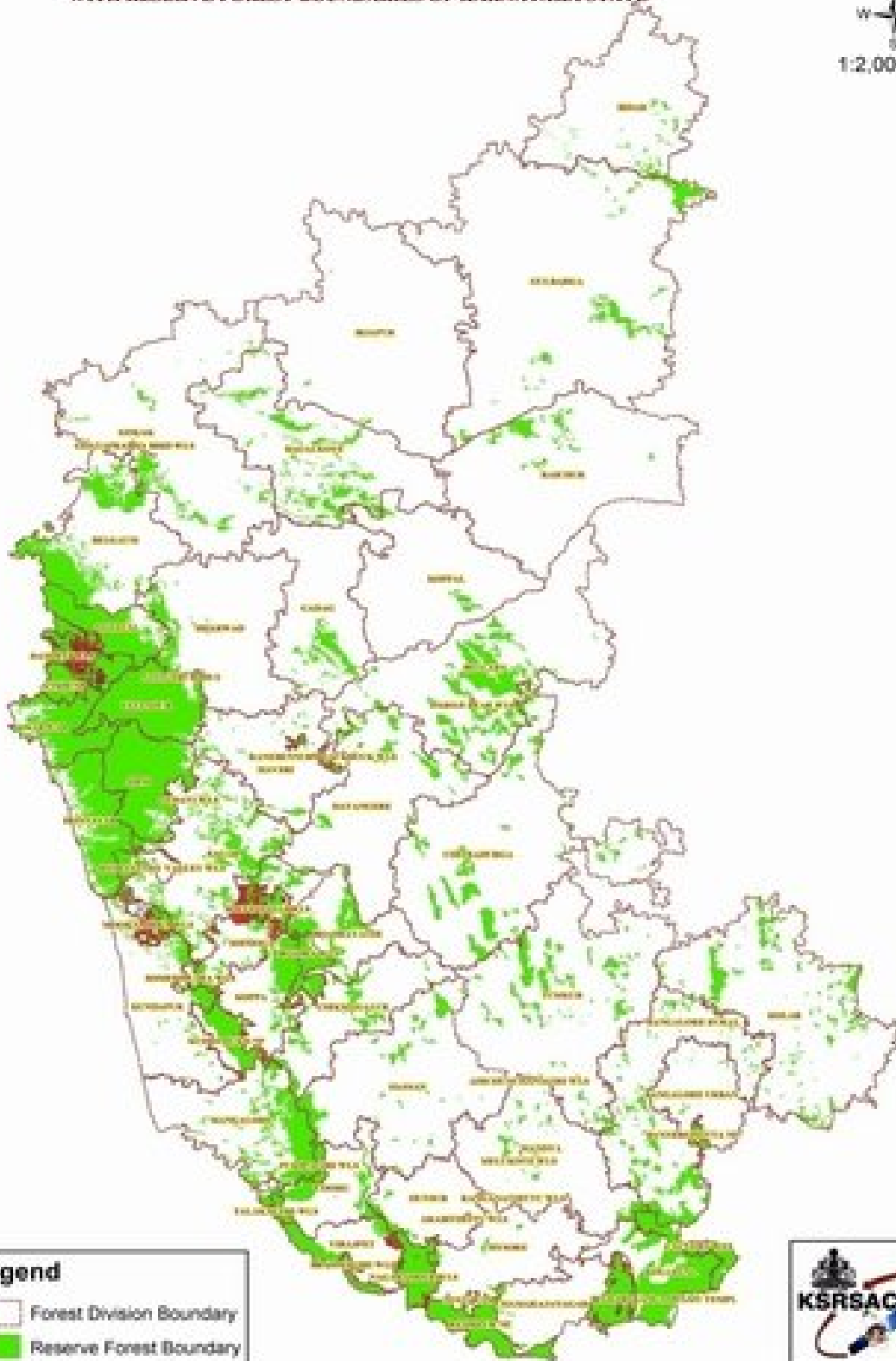
## Strategy and Approach

### Working Plan linked Annual Plan of Operation

Conservation, consolidation and protection prescriptions of working plans are often not implemented for paucity of funds. This affects proper working of forests. **As Government of India order dated 23-4-2004 lays emphasis on forest management and naturally assisted regeneration, priority will be given to Working plan prescriptions while** preparation of Annual plan of Operations .

MAP SHOWING TERRITORIAL DIVISIONS, NATIONAL PARKS, WILD LIFE SANCTUARIES WITH RESERVE FOREST BOUNDARIES OF KARNATAKA STATE

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Legend

- Forest Division Boundary
- Reserve Forest Boundary



## CHAPTER 3

### INTRODUCTION :

During 2010-11 an amount of Rs. 64.23 crores is going to be released shortly to the state CAMPA from Ad-hoc CAMPA, New Delhi. During the recent CAMPA review meeting the Hon'ble Chief Minister and the Chief Secretary of Govt. Of Karnataka, had given instructions to the department to prepare the action plan for 2010-11 CAMPA in advance and get it approved by the steering committee in advance. So that the planning, preparatory works can be taken in advance so that it becomes easy to implement and complete the CAMPA project pertaining to 2010-11 by the end of March-2011. Consequently the Executive Committee meetings were held on 16-4-2010 & 31-05-2010 and discussed in detail the works to be proposed in the additional APO. Accordingly this APO has been prepared by the Executive Committee submitted before the Steering Committee.

The Steering Committee gave its final Approval for 2010-11 state CAMPA on 10-06-2010 as described below.

### Project Activities

The State CAMPA funds collected from the user agencies are to be effectively utilized to meet the overarching objectives and core principles of the CAMPA. The activities need to be oriented towards the overall improvement of the forests and wildlife by adapting latest and innovative means. These activities are broadly classified into 2 types primarily based on the purpose for which the amount is collected and credited in to CAMPA account. They are dealt in detail as follows:

#### I Project Specific Activities: -

The diversion of forest land for non-forestry activities results in the deterioration of the released forest land. In order to overcome this, the Government of India as well as the State Government stipulate compensatory measures. These activities are further classified as below.

- I. **Compensatory Afforestation :-** By diverting the forest land for non-forestry activities the forest cover is lost. In order to compensate this, usually an equal amount of non- forest land has to be afforested so as to maintain the balance. In few exceptional cases where non forest land is not readily available, double the extent of forest land diverted has to be afforested in degraded forest land. This is a most important prerequisite condition for the release of any forest land. Usually,

once the proposal under Forest Conservation Act is cleared and Stage-I approval is given, suitable non-forest/forest land is identified for taking up compensatory afforestation . In cases of any violation of the Forest Conservation Act or any related forest /Wildlife Act, penal compensatory afforestation (PCA) is imposed. It is proposed to plant as for as possible the species which are site specific in this model including the **bio-fuel species**.

The cost towards compensatory afforestation is being collected at a uniform rate and this rate is revised each year due to escalation of SSR and other factors. For the year 2009-10, the cost of C.A is fixed at Rs.94,000 / ha. (Annexure-7). An amount of **Rs. 1074.433 Lakhs** has been provided the year 2010-11 towards carrying out advance work, spill over works in (1219.648.00+642.985 ha.) forest land and (1200.644+430.312 ha.) of non-forest land. (Annexure-8)

- II. **Site Specific Activities** :These activities are necessarily stipulated and shall have to be implemented in or around the immediate vicinity of the leased forest areas. They are as follows.
- (i) **Safety Zone Plantation** :- Whenever the mining lease is given, a safety zone of 7.5 mts all along the outer border of the leased area is afforested with strip plantation. This strip plantation apart from serving as safety zone also absorbs dust and other pollution of the mining activity and serves as a green belt. In addition to this, 1 ½ times the safety zone area has to be afforested in degraded forest land elsewhere. The cost/ha towards safety zone is also Rs.94,000 /ha.
  - (ii) **Fencing** :- The mining lease areas are to be properly fenced so as to demarcate the area properly as well as to prevent any possible encroachment. It also serves as a barrier preventing the wild animals from accidentally straying into mining areas. The cost of fencing for the year 2009-10 is Rs.1,25,000/km.
  - (iii) **Reclamation** :- The mining waste dumps and pits if left untreated would become potential threat to the ecosystems. The loose soil dumps need to be stabilized to prevent further erosion and consequential silting up of reservoirs, tanks, rivers, etc. The cost of reclamation is site specific and decided by the local D.C.F'S concerned.
  - (iv) **Soil and Moisture Conservation**: The forest land once broken up for the Wind Mill/Mining and other projects, it becomes prone to severe soil erosion. The entire landscape gets affected and the damages caused will be quite serious in nature. The erosion of soil and water will eventually result in the degradation of the forest area surrounding the leased area also. Hence, immediate steps are to be taken up for soil and moisture conservation by way of check dams, gully checks, retaining walls, culverts, drainages, contour trenching, afforestation, etc.

(v) **Medicinal Plantation:-** This activity is proposed mainly in the Wind Power Project areas. The corridors between the wind mills are to be utilized effectively and economically. Also, in order to not to obstruct the wind velocity, only dwarf plants need to be planted. These dwarf medicinal plants will be able to withstand the high wind velocity which is usually prevailing in such hill tops. The cost of raising medicinal plantation is site specific and decided by the jurisdictional Deputy Conservator of Forests.

**III. Catchment Area Treatment :-** In some of the projects like hydel projects, the catchment area getting affected requires to be protected against possible denudation and consequential siltation. Hence, it is proposed to treat the catchment area wherever such forest areas are diverted for hydel projects. It is proposed to plant as far as possible the species which are site specific in this model including the **bio-fuel species**. The cost of this activity again is site specific and decided by the jurisdictional Deputy Conservator of Forests.

An amount of **Rs. 250.00 Lakhs** has been provided for the above said activities for 2010-11 (**Annexure - 9**)

## **II Activities for the utilization of NPV :**

The Hon'ble Supreme Court of India realising the importance of forests has ordered to recover the Net Present Value of the forests being diverted for non-forestry purposes from the user agencies. The NPV depends upon the type of forests being diverted. It ranges between Rs.4,38,000./ha. to Rs..10,43,000./ha. The NPV money constitutes bulk portion of the State CAMPA. NPV money is to be utilized for the conservation, protection, regeneration and management of the forests and wildlife of the State in general. It should also be utilized to provide environmental services, Research, training, and capacity building as the integral part in achieving these objectives. The Department would be modernized to protect and regenerate the forest and wildlife habitat. The following components are proposed.

### **C1. CONSOLIDATION & PROTECTION OF FORESTS**

#### **(a). Survey and Demarcation of Forests: -**

Proper survey and demarcation of all the forest areas in this State is important for consolidation, conservation, protection and management of forests. Though it is an important operation, not all the notified forests in the state are surveyed and demarcated with proper boundary stones / cairns due to constraints of funds. It is therefore proposed to include the works of this essential aspect of management of forests under CAMPA funds. The amount required for survey and demarcation works during 2010-11 is **Rs 80.00 lakhs** (**Annexure – 10**).

**(b) Creation of lung spaces by protection & consolidation of valuable forest areas in the cities and urban areas and developing them as tree parks :**

The value of land in urban and semi urban areas is skyrocketing. There are vast extents of forestlands / water bodies situated near or within urban and semi urban limits, which are facing severe threats of encroachments, trespassing, quarrying, etc. Over and above in the era of increasing urbanization these forests have immense environmental value and an ameliorating role. In urban environment, these lands provide much needed lung spaces. Such lands have to be protected against encroachments / trespassing / quarrying, etc by construction of compound wall to height of 5 to 6ft. These areas are to be developed into urban lung spaces and maintained in coordination with resident associations / user groups. Buffer areas of these forests are to be used as recreation zones on eco sustainable basis. These forests will provide much needed open spaces for the urban areas with environmental and health benefits to the people.

In the initial stage, it is proposed to take up consolidation and protection of forests in the semi-urban and urban areas of Bangalore and other districts. The rapid pace of urbanization in Bangalore is leading to shrinkage of open spaces. In this context, the forest lands within the urban areas and semi-urban areas are proposed to be consolidated and protected with 5ft height compound wall, Certain amenities to the neighboring residents for walking, jogging, etc. also are to provided, Apart from saving valuable government property, such consolidation would go a long way in improving the quality of life in the urban areas.

**It is proposed to as far as possible involve the local committees in the above said activities.**

An amount of **Rs. 117.20 Lakhs** has been provided for the above said activity. [\(Annexure-10\)](#)

**(c) Forest boundary consolidation through CPT**

Due to population growth, there is tremendous pressure on forestlands for cultivation, habitations, grazing and other uses. Some pockets of forests are more vulnerable where mere demarcation of forest boundary will not be sufficient to protect the forests against above-mentioned pressures. Digging of fairly deep trenches along forest boundary and planting of live hedges / fast growing tree species will help in demarcating the forest boundary in a conspicuous and identifiable manner besides preventing encroachments and entry of herds of cattle.





In the previous Steering Committee Meeting it was suggested to take up these works under NREGA. After consulting the field officers it is found that at many a places it becomes difficult to implement the above said activity under NREGA, on account of practical problems being faced at field level. Since under NREGA, works are being carried out by local job card holders under the control of Grama Panchayats and Local leaders. The Grama Panchayats usually discourage above kind of works in their jurisdiction as it is not in their priority list. Hence it is proposed to take up above works under NREGA wherever it is feasible and in the remaining places to take up the said works under CAMPA funds.

An amount of **Rs. 160.00 lakhs** as been provided for the above said works of consolidation forest boundaries with trenches. [\(Annexure – 10\)](#)

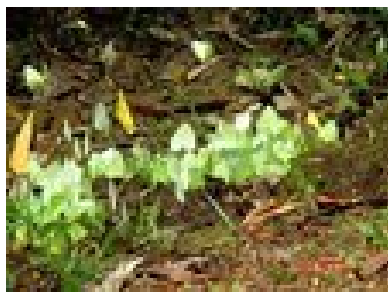
#### **(d) Fire Protection**

Forest fires are major threat not only to the growing stock but also to their very existence. Annual fires set by the forest-dwellers, grazers and villagers are the major cause of occurrence of forest fires. The Department has been making all out efforts to control the forest fires through various fire protection measures. It is also proposed to create new fire lines in ecologically sensitive and economically available forest to create barriers for fire crossing over to forests from habitation. Annually, 2-3% of scrub and dry deciduous forests are subjected to fire. A sum of **Rs. 100.00 Lakhs** has been provided for the above said activities. [\(Annexure – 10\)](#)

## **C2. Conservation & Regeneration of Forests**

### **(a). Assisted Natural Regeneration (ANR)**

Natural regeneration in several parts of the State Forests is not adequate owing to various biotic pressures. Though natural regeneration is promoted under Assisted Natural Regeneration model of Karnataka Sustainable Forest Management and Biodiversity



Conservation (JICA) project and National Afforestation Program through FDAs, the works are taken mainly in the areas which are nearer to the villages and habitations and the provision made is also not sufficient to cover all the treatment required for the forest areas. The pockets of forests away from habitations which are suffering from poor regeneration due to their unique nature, location, external pressures and composition, require support for promoting natural regeneration.

**It is proposed to plant as far as possible species which are site specific in ANR model including bio-fuel species. Also it is proposed to take up these plantations at places which are located near the existing VFCs after following the VFC concept.**

The total amount required for this purpose during 2010-11 is **Rs. 1379.250 Lakhs** (151.250 Lakhs required for spill over works and 1228.00 lakhs is required for advance works). ([Annexure – 11](#))

**(b) Promotion of Sandal Regeneration through intensive protection: -**

Sandal is one of the most important valuable and unique species of forests of Karnataka. Most of the grown up sandal trees have vanished from the forests because of illicit felling and smuggling. Fortunately sandal regenerates profusely in sandal bearing forests of Karnataka wherever good protection is given against browsing and fire. However, after attaining the pole size, the sandal trees are prone to theft and smuggling. A fairly large number of sandal wood trees are found growing in private coffee estates in Chikamagalur, Hassan and Kodagu districts. In these estates naturally regenerating sandal wood trees are getting good protection in the form of effective cattle proof trench supplemented with barbed wire / power fence, sufficient number of watch and ward personnel supported with pack of dogs, arms and ammunitions and back up support provided by nearby labour colony, etc. Taking a clue from the private coffee estates, where it is possible to protect sandal wood trees, a prudent way to successfully grow and protect sandalwood trees in forest lands is to improve and protect the regeneration on an **“estate management concept.”** While selecting the sites under the model, care will be taken to identify the area which have profuse sandal regeneration or which have potential of profuse sandal regeneration situated near the forest establishment like forest depot / nursery / forest rest house / beat / section headquarters / forest training institutes, etc. The selected sites will be compulsorily fenced with chain link mesh in the first year. It is followed by profuse dibbling of sandal seeds in the monsoon season. In the subsequent year poly bagged sandal seedlings will be planted at an escapement of 5mt x 5 (400 plants per ha.) and fast growing species like *Acacia auriculariformis* / *Melia azadiracta* / *Eucalyptus hybrid* etc., mixed with bamboo species like *Oxytenanthere stocksii* (marihal bamboo) planted all along boundary and internal paths. Intensive protection with good number of day and night watch and ward will be provided from 6<sup>th</sup> year onwards till final harvest of sandal wood trees. The efforts of watchers will be supplemented with provision of modern arms to local staff, pack of dogs and support of nearby villagers through a JFPM committee. The income derived out of sale of bamboos, thinned materials from fast growing species & sandal seeds, etc after 5<sup>th</sup> year will be credited towards Village Forest Development Fund (VFDF) which will meet the cost of watch and ward, maintenance of pack of dogs, etc., and thus whole regeneration endeavor will be self sustainable on participatory basis.

An amount of **Rs. 700.00 Lakhs** has been provided for the above said activities during 2010-11. ([Annexure – 11](#))

### **(c) Production of quality Planting materials :**

To enhance the productivity of degraded forest land it is proposed to produce high quality planting material using root trainers in Hi-Tech nurseries in a phased manner all over the state. Also good quality seeds are procured from identified plus trees and seed production areas maintained by the research wing.



An amount **Rs. 50.00 Lakhs** has been provided for procurement of seeds through the research wing. ([Annexure – 11](#))

The datasheet for all these activities are shown in [Annexure 12 & 13](#).

### **(d) Integrated plan for the conservation of biodiversity & ecology in coastal zone :**

The Inter Governmental Panel on Climate Change (IPCC) in its report has stated that the global temperature is expected to increase by about 2<sup>o</sup> F to 11.5<sup>o</sup> F in the 21<sup>st</sup> century. Disforestation is one of the major factors for global warming. The immediate effect of global warming will be felt in coastal areas due to rise in the sea level. Thus there is imminent danger to the coastal area biodiversity, its people and the ecology. Hence there is an urgent need to protect the coastal area by adopting an integrated approach. The various preventive and developmental activities involved will be creation of coastal green wall to prevent sea erosion, conservation of tanks & streams, protection of watersheds, creation of awareness, protection of biodiversity hot spots, raising of medicinal plants & bio-fuel plantations, protection of “Devarakadu”, prevention of environmental pollution, protection and development of forest lands. It is proposed to take up these works in the two coastal Divisions of Uttara Kannada District.

An amount of **Rs. 200.00 Lakhs** has been provided for the above said activities to be taken in the two coastal Divisions of Kanara circle. ([Annexure-11](#))

### **(e) Assistance to KCDC for protection, consolidation of leased forest area thereby encouraging natural regeneration :**

An amount of **Rs. 100.00 Lakhs** has been provided for the above purpose.

### **(f) Revitalisation of old defunct village forest committees.**

At present all over the state nearly 3800 VFC s have been created till today. In some of the divisions some of the old VFCs have become defunct. It was decided to revitalize these old VFCs in phased manner. It was decided to take up 200 VFCs for the above said purpose for the First Phase.

An amount of **Rs. 110.00 Lakhs** has been provided for the above purpose.

### C3. WILDLIFE PROTECTION & MANAGEMENT

#### *Habitat improvement in Protected Areas*

Natural Habitats get degraded and altered continuously because of biotic pressures exerted by activities of human beings and associated animals. As per the objectives of management plans of respective Protected Areas, it is necessary to carry out certain



activities to reverse the degradation or to maintain the habitat in a particular stage. To achieve the same, the following activities are envisaged to be carried out in various Protected Areas of the State.

#### *Active approach of Habitat Management*

- Development and management of natural and artificial water sources
- Salt licks and their management
- Maintain connectivity/corridors to ensure continued dispersal and movement of animal by protection/acquisition/inclusion of corridors
- Conversion of monoculture plantations in natural vegetation
- Weed control ( *Lantana*, *Eupatorium*, *Parthenium*, etc)
- Use of controlled fire to maintain meadows and check of unpalatable plants
- Population assessment and monitoring
- Management of small and low density animal population

#### *Preventive approach of habitat management*

- Management of wildlife within landscapes regardless of administrative boundaries
- Soil and moisture conservation measures to prevent soil erosion and to enhance ground water recharge
- Preventive burning to prevent fire outbreak
- Grazing management and livestock immunization in and around Protected Areas
- Impact Assessment upon wildlife and its habitats
- Status survey by regular monitoring of wildlife population
- Mitigation of human animal conflict
- Protection of wildlife and its habitat from anthropogenic pressure
- Capture and handling of wild animals
- Wildlife health monitoring and disease control
- Corridor assessment and management

### ***Human – Animal Conflict mitigation measures***

Deforestation over the last several decades and result of fragmentation of forests caused by the population explosion has resulted in the elephant herds getting trapped within their restricted forest pockets. The elephants are compelled to pass through private farmlands if they have to move to the neighboring forest. When this happens, they walk through the agricultural fields which inevitably cause damage. When they also realize that tasty feed / fodder items like paddy, sugarcane, banana, etc, are available in the farmlands they would like to remain there and feed on them. This causes loss to the farmers and they raise hue and cry. The entire village joins together as a mob to scare away the elephants; but in the melee the animals get disoriented and often move further into the private lands, accentuating the problem.

The major elephant habitat of Karnataka exists in the form of a narrow band along the Tamil Nadu, Karnataka & Kerala borders covering Kodagu, Nagarahole NP, Bandipur NP, BRT Sanctuary, Kollegal Division, Cauvery Sanctuary and Bannerghatta NP. The entire area along with the adjacent forest areas of Kerala and Tamil Nadu forms the 'Mysore Elephant Reserve'.

Apart from the above areas located within the Mysore Elephant Reserve, there are also elephants distributed in Bhadra Wildlife Sanctuary (1024 Elephants) and Uttara Kannada (137 elephants). These elephants are more or less cut off from those existing in the Mysore Elephant Reserve. But still, as their instincts would have it, they break out occasionally in search of fresh ground.

Due to ever increasing man animal conflict apart from crop depredation, loss of human life is also reported. In the last two years, 101 people have been killed due to attack of wild animals, especially the elephant.

Apart from habitat improvement and conservation measures as discussed above, the following activities are envisaged to be taken up to mitigate man-animal conflicts.

### **Anti depredation measures**

1. Digging and maintenance of elephant-proof trenches between forest and private land.
2. Installation of solar electric fence at strategic places.
3. Organizing elephant-scaring squads to chase back the elephants as and when they intrude outside the forest.
4. Demarcation and consolidation of elephant corridors.

It was decided to improve the condition of present Benneraghatta Biological park (ZAK) by taking some developmental activities inside the Zoo.

To take up above mentioned wild life connected activities both inside and outside protected areas a sum of **Rs. 750.00 Lakhs** is earmarked. (**Annexure – 15**)

## 4. INFRASTRUCTURE DEVELOPMENT

### (a) *Strengthening and augmenting communication network.*

- **Decision Support Systems:**

Procurement, development and deployment of Decision Support Systems to e-enable Forestry Administration in Karnataka Forest Department. Initially DSS envisaged to be taken from Madhya Pradesh Forest Department are;

- a) **Integrated Project Monitoring System** for concurrent monitoring of CAMPA
- b) **Forest Dweller's Survey System** for processing of claims of forest dwellers.
- c) **Forest Offence Management System (FOMS)** for monitoring of forest offence cases in the Department
- d) **Wildlife Management System (WLMS)** for Wildlife habitat management in National Parks and Sanctuaries.

These Decision Support Systems shall take concurrent data directly from field with help of GPS enabled PDA.

- **Information Communication Technology Centre:**

Software Development Facility established at NIC, Bangalore shall be shifted to Aranya Bhavan and developed as a full fledged Information Communication Technology Centre with facility of development, testing, bug fixing of software. This centre shall double up as Geomatics Centre for use, deployment and further development of GIS developed in the Department.

An amount of **Rs. 100.00 Lakhs** has been provided for the above said activity.

### **Strengthening and upgrading of computer network:**

Computers had been supplied before 1997 to various field officers. These have become obsolete now and need up-gradation/ replacement to latest configuration. Now with computers being used at all division offices, it is proposed to network all these into a VPN with facility of encrypted, secure data/ voice /video exchange within the network. At each division office, an information kiosk is to be setup for public to access information on forest land, encroachments, offences, schemes.etc.

An amount of **Rs. 90.00 lakhs** is provided for 2010-11 for the purchase of computers , Laptops, Xerox Machines, GPS etc., for the unit offices. ([Annexure – 16](#))

#### **C4b. New Buildings**

New buildings are proposed to accommodate needs of frontline staff in interior forest areas. Certain old buildings, which are more than 100 years old, need to be replaced. The three new districts namely Ramanagara, Chikkaballapura and Yadagiri has to be provided with new buildings for office and staff. And it is proposed to construct Aranya Bhavan annexure Block phased manner.



An amount of **Rs. 547.30 Lakhs** is proposed for the above said activities.

[Annexure-16A.](#)

#### **C4c. Building Maintenance: -**

There are about 3450 residential and 4237 non-residential buildings in the Department, which house mostly the front line protection and support staff located in interior and mofussil places. Most of the buildings are old and lack basic facilities like water supply arrangement, electricity, toilets, compound / protection wall, connecting roads, etc. It is essential to make these buildings fit for stay in the interest of forest protection & management.



Also there is necessity to taken up some special repairs at sandal storage yard at JB Kaval, New Squad DCF Office, maintenance of rest houses and special repairs to small offices and residences hence it is proposed to maintain these buildings under CAMPA funds.

An amount of **Rs. 290.80 Lakhs** has been provided or 2010-11. ([Annexure-16a](#))

#### **C4d. Development of infrastructure in Training Centers: -**

The Forest Training institutes are essential integral part of building dedicated and motivated human resources in the department. The facilities provided in the training centers are far from satisfactory. Therefore, it is essential to upgrade the training centers as Model Training Centers by providing facilities like required buildings, standby generators, computers and other equipments necessary for imparting training.

An amount of **Rs. 27.00 Lakhs** is provided for 2010-11. ([Annexure-16a](#))

#### **C4e,f. Purchase of Vehicles**

At present in Karnataka Forest Department, vehicles are provided down up to the rank of Asst. Conservators of Forests and to RFOs to some extent. The vehicles at present available with Asst. Conservators of Forests and Deputy Conservators of Forests are mostly old vehicles, whose condition is often not up to the desired level for protection and mobility purpose in rough and rugged forest roads. The Range Forest Officers in few selected sensitive Ranges are provided with vehicles. The smugglers and poachers often use fast moving vehicles of latest make and models. The protection staff at Forest Range level needs to be provided with suitable vehicles, which will considerably increase their mobility and efficiency of protection mechanism. Therefore, it is proposed to provide jeeps to the Range Forest Officers and suitable two wheelers to Section Foresters in a phased manner. The old and obsolete / confiscated vehicles provided to Asst. Conservators of Forests and Deputy Conservators of Forests too need to be replaced with new vehicles of appropriate model and make. And to provided new vehicles to the offices (newly created posts).

It is decided to buy 22 four wheelers at approximate cost of **Rs. 132.00 Lakhs** and 100 two wheelers the approximate cost of **Rs. 55.00 Lakhs** during 2010-11. (Annexure-16)

#### **C5. ENERGY SAVING DEVICES & OTHER ACTIVITIES**

##### **a) RMOE, TE, Etc., :**

It is necessary to meet the day today office expenditure, telephone charges electricity charges, vehicle maintenance and repair charges, and other such expenses.

Hence an amount of **Rs. 25.00 Lakhs** is earmarked for this purpose. (Annexure -17)

#### **C6. Monitoring and evaluation of the works :**

An independent system for concurrent monitoring and evaluation of the works implemented by utilizing the CAMPA funds has to be carried out to ensure effective and proper utilization of funds for this purpose it is mandatory to allocate 2% of the total budget.

Hence an amount of **Rs. 107.018 Lakhs** is earmarked for this purpose. (Annexure -18)

**Chief Conservator of Forests**  
**(CAMPA)**



**ABSTRACT OF APPROVED STATE CAMPA PLAN OUT LAY FOR 2010-11**

SL. No.	PARTICULARS	UNIT of Measure	RATE / UNIT COST FIN (Rs.)	ANNUAL PLAN OF OPERATION FOR UTILIZATION OF STATE CAMPA FUNDS FOR THE YEAR 2010-11		Remarks
				TOTAL		
				PHY (ha/Nos)	FIN (Rs.)	
1	2	4	5	6	7	8
<b>I</b>	<b>Project Specific Activities</b>					
<b>A</b>	<b>Compensatory Afforestation:</b>					
i)	On Forest Area					
	a) Raising	Ha	22570	642.980 ha	145.120	Annexure-8 Annexure-7 Annexure-7a
	b) Advance works	Ha	34384	1219.648 ha	419.363	
ii)	On Non-Forest Area					
	a) Raising	Ha	22570	430.312 ha	97.120	
	b) Advance works	Ha	34384	1200.644 ha	412.829	
<b>B</b>	<b>Site Specific Activities:</b>					
	(Activities like fencing of safety zone, safety zone plantation, reclamation, CATP, SMC works, Raising of ACA, PCA, Dwarf trees etc.,)				250.00	Annexure-9
	<b>Sub Total (A+B)</b>				<b>1324.432</b>	
<b>II</b>	<b>Activities for utilization of NPV amount</b>					
<b>C1</b>	<b>Consolidation and Protection of Forests</b>					
A	Survey and demarcation of Forests	KM	10600	754.71 km	80.000	Annexure-10
B	Creation of Lung Space by protection & Consolidation of valuable forest areas in the Urban areas and developing them as <b>tree parks</b>	29,30,000 for a Min of 30.00 Ha Forest Area to be Consolidated (~ 1 KM pheriphery)	2930000	4 KM	117.200	Annexure-10a
C	Forest boundary consolidation through CPT	KM	81713	196 km	160.00	Annexure-10
D	Fire protection(Creation of New fire lines, maintenance of fire lines, fire watchers)				100.00	Annexure-10
	<b>Sub Total</b>				<b>457.200</b>	

<b>2</b>	<b>Conservation and Regeneration of Forests</b>					
A	Assisted Natural Regeneration (ANR) (area in ha.)	Ha		-	-	
	i) Raising	Ha	6050	2500 ha	151.250	Annexure-12
	ii) Advance works	Ha	20160	6092 ha	1228.000	
B	Promotion of Sandal Regeneration on estate management concept (in Ha).					
	i) Fresh Works only including Fencing & other works etc.,	Ha	220830	317 ha	700.00	Annexure-13
C	Production of Quality Planting Materials and collection of quality seeds (Research wing)	LS			50.000	Annexure-11
D	Integrated plan for conservation and development of biodiversity, forests and ecology in the forest areas of coastal zone-Part-II	LS			200.000	
E	Assistance to KCDC for protection, Consolidation of leased forest area thereby encouraging natural regeneration	LS			100.000	
F	Revitalization of old defunct village forest committees	Nos.	55000	200 Nos	110.000	
	<b>Sub Total</b>				<b>2539.250</b>	
<b>C3</b>	<b>Wildlife Protection &amp; Management</b>					
a	i) Development and maintenance of road network in protected area (in Km)	KM	11000	1000 km	110.000	Annexure-15
b	<i>Elephant-Human conflict mitigation measures (Areas outside &amp; inside Protected Areas)</i>					
	i) EPT (in Km)	KM	203121	84 km	170.600	
	ii) Solar Fencing (in KM)	KM	196112	39 km	76.500	
c	<i>Wild life Habitat improvement &amp; Mangement for individual PAs (Creation of new water holes, desilting of tanks, construction of checkdams, salt licks, Elephant / Antipoaching camps etc.,)</i>				292.900	
d	Development of Banneragatta Biological Park (ZAK)				100.000	
	<b>Sub Total</b>				<b>750.000</b>	

<b>C4</b>	<b>Infrastructure Development</b>					
<b>a</b>	Strengthening & augmenting Communication Network	LS			100.000	Annexure-16, 16a
	i) Computers	Nos.	55000	60 Nos	90.000	
	ii) Laptop	Nos.	55000	30 Nos		
	iii) Xerox Machines	Nos.	88000	29 Nos		
	iv) GPS	Nos.	22000	68 Nos		
<b>b</b>	<b>New Buildings</b>					
	i) New Annexe building to Aranya Bhavan (phase 2)	LS			250.000	
	ii) Construction of division office building	Nos.	1500000	2 Nos	30.000	
	iii) Construction of DCF quarters	Nos.	1537000	2 Nos	30.740	
	iv) Construction of RFO quarters	Nos.	880000	2 Nos	17.600	
	v) Construction of staff quarters	Nos.	704000	24 Nos	168.960	
	vi) Construction of administrative extension office building and other buildings at Kadugodi, Thattihalla, Bidar, Kushalnagara or Ilwala training centres	Nos.			50.000	
<b>c</b>	<b>Building maintenance</b>					
	i) Maintenance of staff quarters	Nos.	55000	340 Nos	187.00	
	ii) Repairs of sandal storage yard at J.B.Kaval	LS			5.000	
	iii) Major Repairs & alterations of new squad office	LS			10.000	
	iv) Repairs and maintenance of Jamkhandi forest rest house including formation of road (As per Assurance committee No. 88/12/2007)				12.000	
	v) Maintenance of Rest Houses	LS			36.800	
	vi) Special repairs to offices & residences.	LS			18.000	
<b>d</b>	Strengthening of Training Institutes for capacity building	Ls			27.000	
<b>e</b>	Purchase of 4 wheelers	Nos.	600000	22 Nos	132.000	
<b>f</b>	Purchase of 2 wheelers	Nos.	55000	100 Nos	55.000	
	<b>Sub Total</b>				<b>1220.100</b>	

<b>C5</b>	<b>Forest Produce Saving devices &amp; other activities:</b>					
a	RMOE, TE, Etc,	LS			25.000	Annexure-17
	<b>Sub Total</b>				<b>25.000</b>	
	<b>GRAND TOTAL</b>				<b>6315.982</b>	
<b>C6</b>	<b>Monitoring and Evaluation</b>				<b>107.018</b>	Annexure-18
	<b>NET TOTAL</b>				<b>6423.000</b>	