



ENVIRONMENT AND FORESTS DEPARTMENT

POLICY NOTE

DEMAND No. 54

FORESTS

2014-2015

**M.S.M. ANANDAN
MINISTER FOR FORESTS**

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**GOVERNMENT OF TAMIL NADU
2014**

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INTRODUCTION

"மணிநீரும் மண்ணும் மலையும் அணிநிழற்
காடும் உடையது அரண்" - திருக்குறள் (742)

"A fort is that which owns fount of waters
crystal clear, an open space, a hill, and shade
of beauteous forest near." - Thirukkural (742)

The ancient Tamil poets have emphasized the importance of dense forests, clean water and fertile soil in providing ecological security to the mankind. Forests are a complex eco-system which play a dual role of a renewable resource and also as a vital support base for safeguarding the overall environment and ecological balance. It is forest cover that has preserved the soil and its heavy humus that has acted as a porous reservoir to

retain water and is gradually releasing it in a sustained flow over a period of time. Trees draw water from the earth crust and release it to the atmosphere by process of transpiration as a part of water cycle. Trees also purify the air by releasing oxygen into the atmosphere after consuming carbon-di-oxide during photosynthesis. The survival and well-being of any nation depends on sustainable social and economic progress, which satisfies the needs of the present generation without compromising the interest of future generation. Spiraling population and increasing industrialization have posed a serious challenge to the preservation of our terrestrial and aquatic ecosystems. Overexploitation of our resources due to rapid population growth has lead to degradation of forests and denudation of agricultural lands. Rapid urbanization has resulted in over-flowing sewage, mushrooming slums, disappearance of wetlands, polluted air and water. Therefore, eco-friendly development is the need of the hour.

Tamil Nadu has a great tradition of preserving forests and environment, which has taught us to respect nature and understand the complex interrelationship between living and non-living things. This great tradition of preserving our environmental heritage has been enshrined in the Constitution of India under the Directive Principles of State Policy. Article 48-A directs that the State shall endeavour to protect and improve the environment and to safeguard the forests and wildlife of the country. Article 51 A (g) enjoins upon the citizens to protect and improve the natural environment including forests, lakes, rivers, wildlife and to have compassion for all living creatures.

2. FORESTS AND CLIMATE CHANGE

Climate is one of the most important determinants of vegetation patterns globally and it has significant influence on the distribution, structure and ecology of forests. Rapid urbanization, industrialization and increasing needs of transportation have resulted in depletion of

non-renewable natural resources like coal, diesel and petrol by human beings in all over the world. This has resulted in the incessant annual rise in the levels of greenhouse gases like carbon-di-oxide, methane, nitrous oxide and carbon monoxide among others. Climate change has also induced changes in species diversity loss, delayed monsoon, increased incidence of diseases, water shortages, depletion of plant diversity and decline in agricultural productivity. In order to control the changes in climate and reduce the vulnerability due to high influx of carbon-di-oxide in the atmosphere, trees alone can serve as the best solution. Forests by serving as an excellent carbon sink can assist in emission reduction and thereby prevent calamities that can affect the biota including the human kind on the earth.

3. FOREST AREA AND TREE COVER

Tamil Nadu has 22,877 Sq. kms. of recorded forest area, which is only 17.59% of the geographical area of the State. As per the

assessment of the Forest Survey of India (State of Forest Report, 2013), the forest cover of the State is 23,844 sq. kms., constituting 18.33% of its geographical area. The forest and tree cover is 28,710 sq.kms., which constitutes 22.07% of the total geographical area of the State as against 33.33% envisaged in National Forest Policy, 1988.

4. FOREST POLICY

Forest policy aims at ensuring environmental stability and maintaining the ecological balance, which help in sustenance of all life forms. One of the principal goals is to bring one-third of the land area of the State under forest and tree cover. Forest Department has taken necessary steps to preserve the environment of the State.

5. FOREST LAWS AND RULES

The changes in consumption pattern of flora and fauna, combined with industrial revolution had great impact on the conservation of forest and wildlife. The Forest Policy, 1894 laid emphasis for

preservation of forests even while commercial utilization of forest produce and wildlife beyond carrying capacity posed serious problems to the ecosystem. The cultural ethos and eco-conservation orientation of Tamil society have paid rich dividends in ensuring the preservation of the State's natural heritage. Tamil Nadu is the first State in the country to impose ban on green felling in 1977 and subsequently on harvest of green bamboos from natural forests, as it is a major source of food for elephants. Tamil Nadu is one of the pioneering States in the field of forest protection.

Acts

Madras Wild Elephants Preservation Act, 1873 : This Act was enacted to prevent indiscriminate destruction of wild elephants by giving an impetus for preservation of elephants.

Tamil Nadu Forest Act, 1882 : The, then Madras Presidency enacted the Madras Forest Act way

back in 1882 mainly for protection of forests and wildlife in the State.

Tamil Nadu Preservation of Private Forests Act, 1949 and Tamil Nadu Hill Areas (Preservation of Trees) Act, 1955 : Enacted for regulating the felling of trees in hill areas and private forests respectively.

Wildlife Protection Act, 1972 : To give importance for the protection of wild fauna and flora.

Forest Conservation Act, 1980 : Being implemented to regulate diversion of forest land for non-forestry purposes.

Biological Diversity Act, 2002 : Enacted for conservation of biological diversity and equitable sharing of the benefits arising out of the sustainable use of biological resources.

Scheduled Tribes and other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 : Enacted for recognition of individual and

community rights to tribes in forest lands and to other traditional forest dwellers, who have been living in the area for three generations (75 years). The Adi-Dravidar and Tribal Welfare Department is the nodal Department for this Act and the Forest Department is facilitating the implementation of the Act.

Rules

The movement of timber including scheduled timber during transit is regulated by the following rules.

- Tamil Nadu Sandalwood Transit Rules, 1967
- Tamil Nadu Timber Transit Rules, 1968
- Tamil Nadu Timber (Movement Control) Order, 1982
- Tamil Nadu Maintenance of Accounts in respect of Scheduled Timber Rules, 1988

The movement of wildlife is also controlled by Tamil Nadu Wildlife (Transit) Rules, 1991.

6. OBJECTIVES

Protection and development of forests are necessary for the long term survival of human civilisation. Quite some time back, Tamil Nadu Forest Department has realized that effective protection and management of forests will yield desired outcome only through the whole-hearted participation of local communities. To meet the social, protection and production demand, the forests of Tamil Nadu are being managed with the following broad objectives:

- Biodiversity and genetic resource conservation by protection of forests and wildlife.
- Conservation and protection of wetlands.
- Augmentation of water resources in forest areas.
- Rehabilitation and restoration of degraded forests for improvement of forest cover.

- Enhancing tree cover outside forests for livelihood security and climate change mitigation.
- Welfare of tribal and forest fringe communities to ensure their economic prosperity along with ecological stability.

7. STRATEGIES

In order to meet the above objectives, forest policy plans to chart out new paths, develop new relationships and fine-tune to the rapidly changing societal demands for forest goods and services by adopting the following strategies to promote a comprehensive forest based development of the State.

1. Biodiversity and genetic resource conservation
2. Catchment area protection and watershed management
3. Enhancing climatic resilience in moderately dense and open forests
4. Forest protection

5. Increasing tree cover outside forests
6. Socio-economic development of forest fringe villages
7. Tribal development
8. Eco-tourism
9. Research, Transfer of Technology and Extension
10. Infrastructure development
11. Application and development of GIS, MIS and E-Governance
12. Human resources management

7.1. Bio-diversity conservation and genetic resource conservation

Tamil Nadu has been a pioneer State in Protected Area management and development of wildlife. About an extent of 5,468 Sq. kms. were brought under Protected Area management to strengthen wildlife protection and biodiversity conservation till last year. During the year 2013-14 alone, an extent of 1,240 sq. kms. have been brought under Protected Area Management by

declaring four Wildlife Sanctuaries viz. Point Calimere Block 'A' & 'B' Wildlife Sanctuary at Thanjavur and Tiruvarur districts, Kodaikanal Wildlife Sanctuary at Dindigul district, Gangaikondan Spotted Deer Sanctuary at Tirunelveli district and Cauvery North Wildlife Sanctuary at Krishnagiri and Dharmapuri districts. Thus the total protected area comes to 6,708 Sq.kms. i.e. (29.32% of forest area). Under the network of Protected Areas, there are 5 National parks, 14 Wildlife sanctuaries, 14 bird sanctuaries and one conservation reserve besides four Tiger Reserves viz. Kalakkad Mundanthurai, Anamalai, Mudumalai and Sathyamangalam. These Protected Areas have been established under the Wildlife (Protection) Act, 1972. Tamil Nadu also has the distinction of having 3 Biosphere Reserves viz. Nilgiris, Gulf of Mannar and Agasthiarmalai, which are known for biodiversity richness.

The Western Ghats is one of the 25 global hotspots and one of the 3 mega centers of

endemism in India. The forests of Kanniyakumari, Kalakkad Mundanthurai Tiger Reserve, Anamalai Tiger Reserve, Mudumalai Tiger Reserve, Mukurthi, Srivilliputhur and Megamalai owe its richness in flora and fauna due to their position in the Western Ghats.

These Protected Areas hold large habitats of viable population of wildlife, endemic species, key-stone species and cover significant landscapes and corridors for large mammals. The Protected Areas in the State are mainly managed for conservation of biodiversity, education, recreation, historical importance, unique landscapes and seascapes. The Japan International Co-operation Agency (JICA) assisted Tamil Nadu Biodiversity Conservation and Greening Project (TBGP) is implemented with biodiversity conservation as its foremost objective. The Management Plans for Protected Areas and Working Plans for all other Forest Divisions have contributed significantly

towards development and conservation of biodiversity in the State.

Further, Tamil Nadu has the following Zoo's recognized by the Central Zoo Authority of India for wildlife conservation.

(i) Zoo's under the control of Forest Department

1. Arignar Anna Zoological Park, Vandalur, Chennai.
2. Children's Corner, Guindy, Chennai.
3. Amirdhi Zoo, Vellore.
4. Kurumbapatti Zoological Park, Salem.
5. Tiruchirappalli Zoo, Trichy.

(ii) Zoo's under the control of Corporation

1. V.O.C. Park Mini Zoo, Coimbatore
2. Sivaganga Garden Mini Zoo, Thanjavur

(iii) Zoo's under the control of Trusts

1. Madras Crocodile Bank Trust/ Centre for Herpetology, Mahabalipuram.
2. Chennai Snake Park Trust, Guindy, Chennai.

7.2. Catchment area protection and management

The objective of catchment area management is to protect and conserve the soil, water and other natural resources. Tamil Nadu is endowed with both perennial and non-perennial river systems. The main rivers of Tamil Nadu originate in the Western Ghats and flow eastward. Forests constitute the major catchments for most of the principal river systems in the State. They contribute to 85% of the catchments for all the 32 river systems, 11 major reservoirs and 61 major irrigation structures of the State. Construction of major water harvesting structures in the downstream area like check dams, and percolation ponds have been taken up for augmentation of water resources. These structures not only act as

storage containers but also as a catalyst for recharging the ground water resource and reactivation of natural springs. The major afforestation schemes like the Tamil Nadu Afforestation Project, National Afforestation Programme, Western Ghats Development Programme, Hill Area Development Programme are pursuing this approach. Likewise, the scheme of Water conservation and canopy improvement is implemented to harvest the water and recharge the ground water.

7.3. Enhancing climatic resilience in moderately dense and open forests

Change in temperature and rainfall associated with global warming are bound to have a significant impact on the forests. Carbon storage capacity of forests and their role in climate change mitigation are receiving increasing attention in today's context of climate change. Protection of primary forests and restoration of degraded forest ecosystems make a vital contribution to reduction of

both (i) anthropogenic pressure and (ii) unavoidable climate change. To enhance the climatic resilience, (i) in situ soil and moisture conservation works like gully plugging, contour trenches, vegetative barriers, catch water pits, etc. to check erosion and increase the percolation, (ii) removal of exotic weeds to eradicate invasive alien species, (iii) gap planting to assist natural regeneration have been carried out mainly under Tamil Nadu Afforestation Project, National Afforestation Programme, Western Ghats Development Programme and under Hill Area Development Programme. The Green India Mission is also launched in the State on landscape basis to enhance climate resilience of identified forests.

7.4. Forest protection

The forests in the State are vulnerable to anthropogenic pressures and the forest resources are under constant threat due to various factors. Illicit cutting and removal of trees, encroachment of forest lands, sandalwood smuggling, forest fire,

grazing, ganja cultivation, theft of medicinal plants, poaching of wildlife, etc., pose continual threat to the protection of forest resources. The measures taken by the department to prevent these illegal activities have yielded desired results. To deal with it very effectively, at present, there are 13 Forest Protection Squads under Protection and Vigilance wing functioning as two groups all over the State viz. Northern Group (7 FP Squads) and Southern Group (6 FP Squads) besides 5 Flying Squads. Further, 17 forest stations, 112 forest check posts and 11 roving check posts are functioning at important and vulnerable points throughout the state. The protection and vigilance wing of the department communicate the information collected on forest and wildlife offences to the divisions concerned for immediate action. The forest personnel are being given special trainings in order to take up innovative combat and patrol strategies and methodologies for protection of forest wealth and resources. The protection works include consolidation of forest boundaries by erecting

cairns, fire prevention strategies by creating new fire lines and maintenance of existing fire lines, involving local people in fire fighting through the formation of Joint Fire Management Committees, employing fire watchers during the dry season, constructing fire watch towers, employing anti-poaching watchers. The Protection and Vigilance Wing of the department has contributed significantly in improving the protection of forests and wildlife.

7.5. Increasing tree cover outside forests

The National Forest Policy, 1988 mandates bringing of one-third of the geographical area of the country under tree cover for ecological amelioration. As the scope for increasing the forest area was not feasible, enhancing tree cover outside the forests has been given more importance. To accomplish this mission, tree cultivation outside forests has been taken up in private farm lands, fallow lands, in other common lands like the tank foreshores, other poramboke lands, roadsides, railway margins and

canal banks. The choice of species recommended to the farmers for their lands would be profitable and drought resistant.

The main focus will be to create tree resources outside the forest areas for meeting the needs for tree products, besides availing various environmental benefits relating to the abatement of air pollution, reduction of noise pollution, carbon sequestration and prevention of soil erosion on the canal banks. In order to achieve national goal of 33.33% tree cover, major schemes like JICA assisted Tamil Nadu Biodiversity Conservation and Greening Project (TBGP), Massive Tree Planting to commemorate Hon'ble Chief Minister's Birthday, Teak planting on padugai lands, planting in tank foreshores, etc. are being undertaken. These programmes would also help to bridge the gap between future supply and demand of fuel wood and timber in the State.

7.6. Socio-economic development of forest fringe villages

People in forest fringe villages tend to rely on farms and forests for their livelihood. Degradation of forests has accentuated the poverty conditions among the forest fringe communities, as they virtually deprived them of livelihood options. Efforts have been made by the Forest Department in gradually building trust and respect in remote forest fringe villages. The people living in these villages have realized that there is a transformation in the role of Forest Department as it is carrying out development activities besides its routine forest protection activities.

Joint Forest Management has given big impetus in both phases of JICA aided Tamil Nadu Afforestation Project with the active participation of the local people in 2,317 forest fringe villages. TAP has handled the poverty alleviation as a main route towards biodiversity conservation by undertaking buffer zone activities in all TAP villages. In poverty

alleviation programmes, micro-credit plays a key role in reaching the poor. Hence 67% of the amount allotted for buffer zone activities is given as loan to Village Forest Committee members to take up alternate employment for reducing the dependence on forests. Totally, an amount of Rs.83.52 crores (73%) has been recovered out of the total distributed loan amount of Rs.114.77 crores. An amount of Rs.11.90 crores have been distributed as loan during the last three years.

Tamil Nadu Afforestation Project (TAP) has made strong path-breaking efforts in creation of alternative employment opportunities for sustainable livelihood. Coordination with the other Government agencies has resulted in generating more resources and opportunities for the fringe or forest dwelling communities for their development under TAP. Therefore, the current approach is based on the lessons learnt in two phases of TAP implementation. Efforts will be focused on developing opportunities for harmonious existence

of the forest fringe people and their participation in forest conservation and development. The approach will be based on two premises viz. (i) by building the social capital by enhancing the individual income and (ii) augmenting natural capital by way of promoting natural resource based activities. Traditional skills and native wisdom will be utilized for conservation gains.

7.7. Tribal development

The tribals have always lived in harmony with nature using its resources in a sustainable manner without destroying them and have helped the Forest Department, all along in the forest management and conservation efforts. The tribal communities have a symbiotic relationship with forests and the existence of both is mutually beneficial. Government policies also insist to have special programmes in tribal areas to improve their quality of life. Hence, Forest Department has been involved in tribal education, employment generation and other welfare activities for the tribals. Primary education to tribals in Jawadi

hills was started by the Forest Department as early as 1951 at Jamanamarathur and extended to other villages. The Forest Department in Tamil Nadu has particularly cared to impart the best education for tribals by running 20 schools in tribal areas in Tiruvannamalai, Vellore and Coimbatore districts. Over 4500 students are studying in these schools. Cash awards were given to the 3 top scorers in Class 10th and 12th from the tribal schools run by Forest Department. Realizing the need of tribals for forest ingredients, this State has also issued orders providing for free collection and use of Minor Forest Produce by tribals. The services of tribals have been utilized in all the major afforestation and development activities of the forest department. This will enable their harmonious existence in the forests and their participation in forest conservation and development.

7.8. Eco-Tourism

Tamil Nadu, with its varied geography and climatic zones, offers several areas to enjoy the

scenic, aesthetic, socio-cultural, and educational aspects of nature in its pristine condition. The forests including some of the highest peaks in South India such as Doddabetta on one hand and coastal plains on the other, sanctuaries, national parks, mangrove areas such as Muthupet and Pitchavaram and coastal sand dunes offer immense scope for developing eco-tourism ventures. Eco-tourism has huge potential for creating substantial livelihoods for local people, even while conserving the natural sites. Eco-tourism is considered as a nature based tourism activity that involves environmental conservation and local economic development for recreational experience. For successful eco-tourism, measures like improvement of infrastructure facilities for the visitors, capacity building and training programmes for forest personnel, publicity, formation of reception centres, vehicles for visitors, watch towers, telescope for viewing wildlife in birds / wildlife sanctuaries and providing eco-guides for tourists has been taken up.

7.9. Infrastructure development

Improving the infrastructure of the Forest Department through construction and maintenance of buildings, equipments, interpretation centres, staff quarters and provision of vehicles is necessary for the efficient functioning of the department. At the same time, infrastructure in forest areas such as roads, housing, schools, and dispensaries also need improvement. As most of the staff of Forest Department is working in remote areas, buildings including residential, non-residential, protection-linked structures like check posts, anti-poaching sheds cum watchtowers will be provided as per requirement besides carrying out maintenance of existing departmental buildings.

A total length of 3,350 kms. of roads including 1,631.5 kms. of WBM roads and black topped roads, 1,718.5 kms. of gravel roads are under the control of Forest Department. Improvement and periodical maintenance of forest roads inside the forest areas is necessary to

facilitate faster movement of protection staff, labour and transport of exploited timber and other forest produce to the nearby market, apart from periodical inspection of interior forest areas by protection staff and senior officers. To strengthen communication facilities, provision of vehicles to field officials who are engaged in protection, provision of communication equipments like GPS, cell phones, etc. for field staff will be undertaken.

7.10. Forest research, Transfer of technology and Extension

Credible and reliable forest management packages and practices can be established only through strong research support. More emphasis has been laid on scientific forestry research after recognizing the impact of forests on ecological security, energy and employment. Forest research has provided new thrust to latest dimension of forest activities, in areas of tree cultivation in private lands, seed biology, medicinal plants conservation, MFP, post harvest technology, etc. The main focus

of forest research in Tamil Nadu is to enhance forest conservation and bio-diversity conservation, improve productivity and thereby produce more goods and services for the benefit of people through research experiments. Research has been undertaken in multipurpose tree species, non-wood forest produce and other thrust areas like silviculture, bio-diversity conservation, restoration ecology, soil nutrient management, medicinal plants improvement and tree husbandry, bio-fertilizer production, post-harvest technology. Remarkable achievements and findings of forest research will be transferred to the field.

Under Tamil Nadu Biodiversity Conservation and Greening Project (TBGP), necessary attention has been given to conduct various types of research for increasing the natural resource base. The main emphasis is to increase the wood production outside the forest area. Management interventions are needed on production forestry and agro-forestry in different

agro-climatic zones. Research on wood market and research on NTFP management have been initiated. Research on invasive species like Lantana camara and Prosopis juliflora has been envisaged.

7.11. Application and development of GIS, MIS and E-Governance

Forestry involves vast database on human resource development, land based information, project related activities, products and services, research and extension and public utilities. The use of Information Technology has come to play a vital role in planning, management and monitoring in forestry sector. Hence GIS is vital for efficient forest management practice. The specific applications of this technology have effectively been utilized in the forest cover / type mapping and change analysis; preparation of the district-wise forest atlases; forest fire monitoring; working plan/ management plan preparation etc. Digital district Forest Atlases were prepared for all the districts of Tamil Nadu by using

satellite Remote Sensing and Geographical Information System. Forest fire mapping using satellite imagery was completed for entire Western Ghats and Eastern Ghats of Tamil Nadu, which is helpful in managing forest fire in the divisions. Management Information System is a very important tool for systematic and effective management of the activities and helps in periodical progress monitoring and timely and effective decision making. In order to orient the Forest Department into Information Technology mode, web-based user friendly MIS software is under development. TNSWAN has been identified as one of the core e-Governance backbone infrastructure by National e-Governance Action Plan (NeGP) and Department of Information Technology (DIT), GOI. Capitalizing on the recent developments in information technology, a full-fledged MIS facility has been established with Wide Area Network (WAN) and centralized video conferencing would be set up, and appropriate skills of the Forest

Department staff will be upgraded by providing training.

7.12. Human Resources Management

Human resources play a vital role in the field of forestry and have become one of the most important assets of the Forest Department. Forest department is one of the oldest departments in the State. Over the years it has made significant contribution in conservation and development of forests of the State through its skilled human resources. At present the department is running two training institutions viz. Tamil Nadu Forest Academy (TNFA), Coimbatore and Tamil Nadu Forestry Training College, Vaigai Dam for imparting training to departmental personnel including senior, middle and lower level officers. In Tamil Nadu Forest Academy, Coimbatore, training is imparted to Forest Range Officers and Foresters while in Tamil Nadu Forestry Training College, Vaigai Dam training is imparted to Forest Guards and Forest Watchers. Training is being imparted to the forest

staff to effectively cope up the challenges in protection and conservation of forests and wildlife. The periodical / refresher programme will be imparted to officers, subordinates, ministerial staff, Village Forest Committee members, NGOs, etc. on advanced plant production techniques, wildlife management, legal aspects, biodiversity conservation, usage of weapons, fire control, application of GIS and handheld GPS, designing of civil works, wood technology, etc.

8. HIGHLIGHTS OF 2013-14

- History of wildlife protection will record in golden letters in the year 2013-14 during which a record number of four wildlife sanctuaries were declared within a year for the first time in Tamil Nadu.
- The Government has sanctioned a sum of Rs.6.94 crores to carryout developmental activities in the zoos under the control of Zoo

Authority of Tamil Nadu, which is headed by the Hon'ble Chief Minister.

- **Operation Malai:** For the first time in India, a herd of 6 wild elephants which was causing extensive damages by straying into the human habitations in Tiruvannamalai, Villupuram, Vellore, Krishnagiri, Dharmapuri and Salem districts for long time was captured and translocated in one go. The entire operation was accomplished in a record time of 60 hours with expertise and man power from within the State. The operation of unprecedented magnitude was made successful by involving 367 staff and officers of Forest and line departments besides 5 kumki elephants. All the six wild elephants were captured and three elephants each were sent to Mudumalai and Anamalai camps for rehabilitation.

- A special health and rejuvenation camps for 55 Forest Department elephants were conducted at Thekkampatti, Mudumalai, Anamalai, Vandalur Zoo and Salem Kurumbapatti Zoo for a period of 48 days by incurring expenditure to the tune of Rs.92.75 lakhs. The departmental elephants were provided 9 medicinal special foods, various green fodder and nutrient supplements besides the regular food during the camp period. The rejuvenation camp has helped creating a process of socialization, joyful experience for the camp inmates and resulted in psychological improvement in the elephant behaviour.
- Forest Museum at Arignar Anna Zoological Park has been established at a cost of Rs. 20 lakhs.
- **Coral reefs restoration:** The Gulf of Mannar is one of the four major coral reef

areas in India. In order to restore and rehabilitate the reef eco-system, coral restoration work has been carried out in Puluvnichalli island of Vembar group and Koswari island of Tuticorin group in Gulf of Mannar Marine National Park under the scheme of conservation and management of coral reefs.

- Monthly wages to Anti-poaching watchers have been enhanced from Rs.4000/- to Rs.6750/- per month.
- Rs.137.07 crores has been realised as revenue to Government by sale of 298.34 tonnes of sandalwood through tender cum auction.
- Rs.11.53 crores has been realized as revenue to Government by sale of 3448.76 cubic metres of teakwood through open auction.

- Rs.31.99 crores has been realized by sale of Social Forestry plantations during 2011-12 and 2012-13. During 2013-14, a sum of Rs.17.97 crores has been realized. For the year 2012-13, it has been proposed to distribute Rs.6.80 crores to panchayats as share of sale of social forestry plantations.
- 645.30 hectares of lands has been notified as Reserved Forests and 1498.81 hectares as Reserved Lands.
- For strengthening the Legal wing of Forest Department three posts of Advocates (1 criminal and 2 civil) have been created.

9. GOLDEN MOMENTS OF TAMIL NADU FOREST DEPARTMENT

Recognition at global level

- The Western Ghats are internationally recognized as a region of immense global importance for the conservation of biological

diversity, besides containing areas of high geological, cultural and aesthetic values. It is one of the 25 global hotspots of bio-diversity and one of the three mega centres of endemism in India.

- Gulf of Mannar Biosphere Reserve found its place in UNESCO network during 2002-03.
- Point Calimere Wildlife Sanctuary was declared as Ramsar site of internationally important wetland during 2002-03.

Increase in forest cover

As per the 2013 Forest Survey of India report, Tamil Nadu has registered a net increase of 219 sq. kms. of forest cover as compared to the previous assessment report of 2011.

Tigers on the rise

The Wildlife (Protection) Act, 1972 governs wildlife conservation and protection of the

endangered species. Protected under the Act, during the year 2011 the population of tigers has increased significantly from 76 to 163. In order to give an impetus to tiger conservation Sathyamangalam Wildlife Sanctuary has been declared as the 4th Tiger Reserve of Tamil Nadu during 2012-13.

Western Ghats made it to the coveted list of World Heritage Sites

A cluster of 39 sites in the Western Ghats have been inscribed in the list of World Heritage Sites by UNESCO's World Heritage Committee during 2012-13. It includes the forest areas of Tirunelveli division, Kalakkadu Mundanthurai Tiger Reserve, Srivilliputtur Wildlife Sanctuary, Grass hills and Karian Shola areas of Anamalai Tiger Reserve and Mukkurthi National Park, which are the repositories of innumerable flora and fauna.

Glorious 100 years of Tamil Nadu Forest Academy, Coimbatore

The Tamil Nadu Forest Academy (Formerly Southern Forest Rangers College), Coimbatore originally known as Madras Forest College was established in the year 1912 and was taken over by the Government of Tamil Nadu in 1990. During 2012-13, one of the oldest institutions in South Asia imparting training in Forestry to Forest apprentices, especially to Ranger cadre, has made it into the history by completing 100 years. During, 2005, the Southern Forest Rangers College was upgraded as 'Tamil Nadu Forest Academy'. It has trained 5074 Forest Range Officers and 1302 Foresters. It is also giving short-term inservice training to IFS officers and Assistant Conservator of Forests.

Kalakkad Mundanthurai Tiger Reserve turned 25

- Kalakkad Mundanthurai Tiger Reserve (KMTR), an important biodiversity hotspot in Western Ghats, has completed a 25 year mark during the year 2013-14. Mundanthurai

Wildlife Sanctuary was declared as the Nation's first Tiger Sanctuary in 1962 primarily for the conservation of Tigers even before the Project Tiger was launched. Kalakkad Wildlife Sanctuary was established in 1976 especially for the protection of endangered lion-tailed macaque. In 1988, the two contiguous sanctuaries viz. Mundanthurai Wildlife Sanctuary and Kalakkad Wildlife Sanctuary were combinedly declared as 17th Tiger Reserve of India.

- **Field Learning Centre** : Considering the benefits of eco-development project (1994-2001) aided by World Bank for improving local livelihoods and enhancing conservation, the World Bank has recognized KMTR as a 'Field Learning Centre' for participatory biodiversity conservation during 2011.

- **National Tiger Conservation Authority award** : KMTR has bagged the National Tiger Conservation Authority (NTCA) award in the 'Best coexistence and buffer zone management' category during 2012-13.

Lowest diversion of forest areas

Tamil Nadu has always been the forerunner of all the forest protection and conservation measures as it implements various enactments vigorously. The diversion of forest lands for non-forestry purposes in Tamil Nadu is lowest in the country. In a long span of more than 30 years, the diversion is only about 4,458 hectares involving 371 cases since enactment of Forest (Conservation) Act, 1980.

10. FOREST REVENUE AND EXPENDITURE

Forest Revenue

Major sources of revenue are by sale of sandalwood, timber and sale of farm forestry

plantations (Annexure-1). Dead sandalwood trees alone are extracted for sale. Matured teak trees aged over 30 years are being harvested every year as decided by the Government. Supplies of raw materials are from matured plantations and are allotted to certain paper and other industries. The farm forestry plantations raised in irrigation tanks are sold in auction to raise revenue.

Expenditure

All development programmes including afforestation, soil and water conservation, habitat improvement works in various sanctuaries and Tiger reserves, intensive care towards protection of forest wealth, creation of awareness among the rural people have been continued in an effective manner. The schemes for which necessary provisions have been made in the budget are given in Annexure-2.

11. MAJOR ONGOING SCHEMES – 2014-15

STATE SCHEMES:

11.1. Tamil Nadu Biodiversity Conservation and Greening Project

An externally aided 'Tamil Nadu Biodiversity Conservation and Greening Project' at an outlay of Rs. 686 crores is under implementation from 2011-12, which will continue till 2018-19. This project focuses on biodiversity conservation through forest protection and socio-economic development of forest fringe villagers and tribal communities. It will also help to continue the State's efforts in increasing tree cover outside forests by taking up tree cultivation in private lands. During 2013-14, the project was implemented at an outlay of Rs.96.80 crores. This scheme is being continued in 2014-15 with an outlay of Rs.143.69 crores.

11.2. Tamil Nadu Afforestation Project (Phase-II)

In order to uplift the quality of life of the forest dependants and poorer sections of the society and to restore the degraded forests through their participation, a massive Joint Forest Management based Tamil Nadu Afforestation Project-II was implemented at a cost of Rs.567.42 crores, with funding from the Japan International Cooperation Agency (JICA) since 2005-06. From 2005-06 to 2012-13, afforestation works were taken up over an extent of 1,77,500 hectares of degraded forests besides carrying out developmental works in 800 forest fringe villages including 150 tribal villages.

JICA Funds: A two year plan has been conceptualized for about Rs.50 crores to ensure sustainability of the project activities by utilizing the balance loan amount available under Tamil Nadu Afforestation Project Phase-II.

State Funds: Maintenance of plantations and soil moisture conservation works in TAP Phase-I areas were carried out at a cost of Rs.27.34 crores under TAP Phase-II during 2011-12 and 2012-13. During 2013-14, the scheme was implemented at a cost of Rs.12.28 crores. This scheme will be continued during 2014-15.

11.3. Massive Tree Planting Programme

In order to make tree planting a massive people oriented exercise as well as to increase green cover in the State, a massive tree planting programme was implemented at a cost of Rs.27.22 crores and about 64 lakh seedlings were planted in 32 districts of the State in commemoration with Hon'ble Chief Minister's 64th Birthday during 2011-12. This scheme is being continued to be implemented over an outlay of Rs.43.55 crores by planting 65 lakh seedlings in the 32 districts of the State from 2012-13 to 2014-15. An amount of Rs.23.15 crores was incurred by planting 65 lakhs seedlings in all over the State upto

March 2014 and maintenance works are under implementation.

Further, the Government has accorded sanction for a sum of Rs.49.18 crores for a period of three years from 2013-14 to 2015-16 towards the implementation of the Massive Tree Planting programme marking the 66th Birthday celebrations of the Hon'ble Chief Minister by planting 66 lakh seedlings in all the 32 districts. Planting works are being carried out.

11.4. Raising teak plantations on padugai lands

The objectives of the scheme are to create timber resources in the State, to increase tree cover outside the Reserve Forests and to prevent soil erosion in the canal banks. During 2013-14, teak plantations were raised over an area of 8,863 ha. besides carrying out maintenance works in the padugais of Thanjavur, Tiruvarur, Trichy, Dindigul and Villupuram districts from the sanctioned amount

of Rs.13.41 crores. This scheme will be continued during 2014-15.

11.5. Free distribution of seedlings

During 2013-14, under this scheme 9.76 lakh seedlings have been raised from the sanctioned amount of Rs. 93 lakh and the same are being distributed to various institutions and individual households free of cost. This scheme will be continued during 2014-15.

11.6. 13th Finance commission

The 13th Finance commission has recommended allocation of a sum of Rs.142.48 crores under Grants in-aid for maintenance of forests for the period from 2010-11 to 2014-15 for Tamil Nadu. The objective is to provide fiscal resources, in support of State's commitment in forest and bio-diversity conservation. During 2013-14, this scheme was implemented with an outlay of Rs.35.62 crores. It is proposed to

implement the scheme at an outlay of Rs.35.62 crores during 2014-15 also.

11.7. Replanting in Thane cyclone affected areas

Sanction has been accorded by the Government for the scheme called 'replanting in Thane cyclone affected areas' for restocking of the affected coastal areas in Cuddalore and Villupuram districts with tree species like teak, casuarina, eucalyptus etc., over a period of four years commencing from 2012-13 at a cost of Rs.14.96 crores. This scheme has been implemented by incurring expenditure to the tune of Rs.11.11 crores so far. It is being continued by carrying out maintenance works during 2014-15.

11.8. Water conservation and canopy improvement project

A comprehensive scheme with an outlay of Rs.50 crores is under implementation every year from 2012-13 to undertake extensive water harvesting works with funding assistance from

NABARD. Main objectives of the scheme are to improve the soil moisture regime, to recharge ground water aquifer and to increase the availability of water for cultivation activities. This scheme has been implemented in 10 districts of Tamil Nadu viz. Coimbatore, Dharmapuri, Dindigul, Kanniyakumari, Madurai, Namakkal, Salem, Tiruvallur, Vellore and Villupuram. It is proposed to continue this scheme at an outlay of Rs.50 crores during 2014-15.

11.9. Nature Conservation

The objective of the scheme is to carry out the works such as improvement of existing enclosures in Guindy National Park, construction of compound wall for protection of forests and wildlife, establishment of fodder plot for herbivores, etc. in Tamil Nadu Forestry Training College at Vaigai Dam. During 2013-14, this scheme was implemented with a sanctioned amount of Rs.67 lakh. It is proposed to implement the scheme with an outlay of Rs.1.38 crores during 2014-15.

11.10. Payment of compensation for the damages caused by wildlife

Fragmentation of wildlife habitats due to population explosion and industrialization has made the wildlife to stray out of the forests into human habitations. This results in man animal conflict situations. It is essential to tackle this problem on a war footing manner by erecting appropriate physical barriers in the vulnerable areas, augmenting fodder resources and providing waterholes for wild animals within the forests and timely payment of compensation to the victims for the loss of human life, livestock, damages to agricultural crops and property caused by wildlife. During 2011-12, this Government has enhanced the rate of compensation for human death and permanent incapacitation from Rs.1.50 lakh to Rs.3.00 lakh and for crop damages from Rs.0.15 lakh to Rs.0.25 lakh per acre. Further a "Revolving Fund" of Rs.2.50 crores had been created during 2011-12 for quick settlement of compensation for damages

caused by wildlife. An amount of Rs.3.40 crores was sanctioned under various schemes and payment made for compensation during 2013-14. This Government has taken adequate measures to prevent man-wildlife conflict besides it has also made necessary arrangements for speedy settlement of compensation for damages caused by wildlife, if any.

11.11. Asian elephants depredation and its mitigation measures

Human wildlife conflict is a complex problem to be managed by adopting a multi-pronged strategy involving habitat improvement including improving water sources, growing crops which are preferred by wild animals as fodder inside the forest areas itself, formation of physical barriers around the forest boundary, capacity building of the villagers, awareness creation and timely payment of compensation to the victims for loss of human life, livestock, damage to agricultural crops and property.

During 2013-14, elephant proof trenches have been dug for the length of 744 kms. along the forest boundaries in Vellore, Tiruvannamalai, Coimbatore, Nilgiris, Dharmapuri, Krishnagiri, Erode, Dindigul, Tirunelveli, Kanniyakumari and Tiruppur districts besides carrying out other activities like construction of percolation ponds, check dams and water troughs, maintenance of elephant proof trenches, early warning system, trip wire alarm system and tranquilizing and translocation of problematic elephants in Vellore, Salem, Dharmapuri circles, etc. for which an amount of Rs.32.18 crores has been sanctioned. During 2014-15, maintenance activities are under implementation.

11.12. Creation of fodder resources and improvement of wildlife habitats

With a view to restrict the elephant movement within the forests, activities like raising green fodder bank inside the Reserved Forest

areas, providing salt licks to meet the mineral requirements of the elephants, creation of water holes, construction of check dams and percolation ponds to meet their water demand in summer season have been undertaken. The Government have sanctioned Rs.20.87 crores for implementation of this scheme for a period of five years from 2011-12 to 2015-16. So far, a sum of Rs.13.60 crores has been incurred towards implementation of the scheme. It is being continued with an outlay of Rs.4.17 crores during 2014-15.

11.13. Preventing monkey menace in Tamil Nadu

To curb the monkey menace, works like establishment of two monkey capturing units at Velachery and Vandalur, establishment of a Nodal Centre at Zoo Veterinary Hospital in Arignar Anna Zoological Park, Vandalur and formation of ten cluster rehabilitation centres at Ooty, Coimbatore, Salem, Erode, Vellore, Tiruchirappalli, Madurai, Tirunelveli, Ramanathapuram and Kanniyakumari

districts have been undertaken at an outlay of Rs.2.75 crores.

11.14. Pallikaranai Marshland

The Pallikaranai marshland is a unique fresh water swamp located within the Chennai metropolitan area. This wetland is situated in Perungudi, Pallikaranai and Thoraipakkam villages of Kancheepuram District. The Hon'ble Chief Minister of Tamil Nadu has taken initial steps to protect this marshland during 2002. As on date, an area of 690.53 ha. is under the control of Forest Department, out of the total area of 807.08 ha.

In order to preserve the marshland to discharge its ecological functions, a comprehensive scheme has been sanctioned for a period of five years from 2011-12 to 2015-16 with an outlay of Rs.15.75 crores, for taking up various restoration activities like habitat improvement, protection, research, monitoring, publicity, awareness, etc. In order to ensure the implementation of the

restoration works during the summer months on continuous basis and to receive funds from other funding agencies and donors, the setting up of a "Conservation Authority of Pallikaranai Marshland" has been approved by Government. Totally a sum of Rs.7.09 crores has been incurred towards implementation of the scheme so far. Implementation of this scheme is being continued during 2014-15.

11.15. Suchindrum - Theroor - Manakudy conservation area scheme

A special scheme to develop Suchindram-Theroor - Manakudy lake areas for birds conservation in Kanniyakumari district over a period of three years was sanctioned with an outlay of Rs.1.61 crores during 2011-12. So far, an amount of Rs. 1.50 crores has been incurred towards implementation of the scheme. It will be continued during 2014-15.

11.16. Butterfly Park and Nakshatravanam at Srirangam, Trichy

A special scheme for establishing a butterfly park in an area of 10 ha. in Upper Anaicut Reserve Forest near Srirangam for creation of Nakshatravanam and to conserve and exhibit the butterflies for the benefit of pilgrims and tourists is under implementation at an outlay of Rs.7.35 crores. An amount of Rs.4.72 crores has been incurred towards the implementation of the scheme so far. The works will be continued during 2014-15.

11.17. Advanced Institute for Wildlife Conservation

Establishment of Advanced Institute for Wildlife Conservation (Research, Training and Education) at Arignar Anna Zoological Park has been undertaken from 2012-13 to 2014-15 with an outlay of Rs.27.13 crores. This institute will have centres for reproductive biology, animal care science, conservation ecology, conservation

education and sustainability, conservation and evolutionary genetics, migratory birds, species survival, wildlife forensic lab and hostel for scientists. So far, an amount of Rs.1.30 crores has been incurred towards infrastructure and other works. The remaining works are being carried out during 2014-15.

11.18. Gulf of Mannar Biosphere Reserve Trust

As the funding support of UNDP came to an end on 31.12.2012, the Government of Tamil Nadu has taken over the functioning of the Gulf of Mannar Biosphere Reserve Trust by sanctioning Rs.10 crores, at Rs.2.50 crores per year for four years from 2013-14 to 2016-17. During 2013-14, research activities, awareness creation, training programmes and eco-development activities were undertaken at an outlay of Rs.2.50 crores. The activities will be continued during 2014-15 also.

11.19. Improvement of Zoo's

Under the Chairmanship of Hon'ble Chief Minister as Zoo Authority of Tamil Nadu, all the Zoo's in Tamil Nadu including Arignar Anna Zoological Park are given special focus for their development. During 2013-14, the State Government had allotted Rs.5.70 crores towards

- Grant for three Zoo's Kurumbapatti, Amirdhi and Trichy @ Rs.1 crores each,
- Improvement of visitors' amenities in Children's Park, Guindy @ Rs.1 crores,
- Replacing iron gates and grills of animal enclosures in AAZP @ Rs.1 crores
- Creation of wildlife awareness centre in Children's Park, Guindy @ Rs.70 lakhs

In addition, under State funds the Government has sanctioned Rs.5 crores for the improvement of Amirdhi Zoo at Vellore and Trichy Zoo. The works will be continued during 2014-15.

11.20. Arignar Anna Zoological Park, Vandalur

The Arignar Anna Zoological Park, Vandalur, spread over an extent of 602 ha. of forest area, is located at Vandalur, close to Chennai. The park exhibits 1,398 animals, which include 45 species of mammals, 70 species of birds, 29 species of reptiles covering 144 species of wildlife. It has emerged as a captive breeding centre for many endangered animal species like white tiger, lion tailed macaque, etc. It attracts about 20 lakh visitors annually. The animal adoption programme by sponsors is emerging as a significant initiative for inculcating awareness and compassion for wild animals among the public. Contribution of Rs.42.59 lakhs has been received from 128 sponsors so far.

In order to attract the visitors, researchers and students for understanding the forests and wildlife and for awareness creation, a Forest and Wildlife Museum has been established at Arignar

Anna Zoological Park with a sanctioned outlay of Rs. 20 lakhs.

Ministry of Tourism Development, Government of India has released Rs.4 crores out of the sanctioned amount of Rs.5 crores towards the establishment of butterfly park at Arignar Anna Zoological Park, Vandalur. Works like construction of building in butterfly shape, formation of a stream, thermal and moisture stabilisation, formation of nectar and host nurseries have been undertaken in the butterfly park. These works will continue during 2014-15.

CENTRALLY SPONSORED SCHEMES

These schemes are 100% funded by Government of India except Project Tiger. 39 such schemes were implemented during the year 2013-14 with a sanctioned sum of Rs.27.85 crores. With this funding, various habitat improvement activities have been undertaken in National Parks, Wildlife Sanctuaries, Bird

Sanctuaries and Conservation Reserve and other areas under the control of Forest Department.

11.21. Project Tiger

The Forest Department has taken various measures to conserve Tigers and their habitats in Tamil Nadu. There are four Tiger Reserves in Tamil Nadu viz., Kalakad Mundanthurai Tiger Reserve in Tirunelveli district, Anamalai Tiger Reserve in Coimbatore and Tiruppur districts, Mudumalai Tiger Reserve in Nilgiris district and Sathyamangalam Tiger Reserve in Erode district. Tiger being the top carnivore is an indicator of the healthy eco-system.

Government of India provides 100% financial assistance for works of non-recurring nature and 50% for works of recurring nature in this scheme. The remaining 50% of the recurring works are financed by the State Government. Activities like habitat conservation, eco-development, wildlife protection, fire protection, water source improvement, tourism development, controlling of

man-animal conflict and improvement of infrastructure facilities have been carried out under this scheme with a sanctioned amount of Rs.17.20 crores during 2013-14. It is proposed to continue this scheme during 2014-15.

11.22. Project Elephant

Project Elephant scheme is implemented in four elephant reserves viz. Nilgiris Eastern Ghats Elephant Reserve, Coimbatore Elephant Reserve, Anamalai Elephant Reserve and Periyar Elephant Reserve. These reserves have no separate legal status. These four Elephant reserves, which include the existing Reserve Forests and sanctuaries, are grouped for management convenience. Tamil Nadu is one of the leading States in elephant population and their habitat management. This scheme is being implemented to protect the elephants and improve their habitats.

It was implemented by undertaking fire protection measures, providing water facilities to

elephants etc., compensation for the crop damages and loss of human lives caused by elephants and planting fodder species to improve the habitats of elephants with a sanctioned amount of Rs.3.17 crores during 2013-14. During 2014-15, it is proposed to implement this scheme with an outlay of Rs.4.12 crores.

11.23. Gulf of Mannar Biosphere Reserve

The Gulf of Mannar Biosphere Reserve is known for its rich bio-diversity and endemism. It includes 21 coral rich islands along the coast line from Rameswaram to Tuticorin. There are about 4,223 species of marine organisms found in this area, which includes 11 species of mangroves, 15 species of sea grass, 117 species of corals, 290 species of birds, 5 species of sea turtles, 6 species of whales, 5 species of dolphins, 1 species of sea cow, 1,145 species of fishes, 77 species of porifera, 79 species of crustaceans, 153 species of echinoderms, 857 species of molluscs and others.

The Government has sanctioned funds under three schemes viz. Gulf of Mannar Biosphere Reserve, Gulf of Mannar Marine National Park and conservation and management of coral reefs in Gulf of Mannar to carry out the developmental activities. To reduce the biotic pressure on the marine ecosystem, creation of alternate livelihood options for the local people who are directly dependent on the marine resources, eco-development works, protection and conservation of natural resources, education and awareness programme, etc. were undertaken from the sanctioned amount of Rs.1.13 crores during 2013-14. During 2014-2015, it is proposed to implement this scheme with an outlay of Rs.2.10 crores.

11.24. Wetland conservation and development

This scheme is implemented at Point Calimere, Kazhuveli and Pallikaranai wetlands to check floods, prevent coastal erosion, mitigate the effects of natural disasters like cyclones and tidal waves, store rainwater, recharge ground water

aquifers, provide nesting ground for many wading birds and water fowls, provide food and shelter for mammals and to remove wide range of pollutants. Major activities like habitat improvement, wildlife protection, eco-development activities around wetlands, bio-upgradation, awareness creation, research and monitoring and nature education were undertaken from the sanctioned amount of Rs.1.01 crores during 2013-14. It is proposed to implement this scheme with an outlay of Rs.2.85 crores during 2014-15.

11.25. National Afforestation Programme

The National Afforestation Programme (NAP) is being implemented in Tamil Nadu from 2002-03 through Forest Development Agencies and Joint Forest Management Committees (JFMCs) with 100% central assistance. From 2002-03 to 2013-14, an area of 70,484 ha. has been afforested at a cost of Rs.112.34 crores. During 2013-14, sanction has been accorded for carrying out 1,800 ha. under "creation component" and 2,094 ha. under

"advance work" and for maintenance works at a cost of Rs.5.68 crores. Works were undertaken from the first instalment release amount of Rs.2.84 crores by Government of India.

11.26. Green India Mission

The National Mission for Green India is one of the eight missions announced under the National Action Plan on Climate Change (NAPCC). It recognizes that climate change phenomenon will seriously affect the distribution, type and quality of natural biological resources of the country. During 2011-12, the Government of India had sanctioned the bridge plan under Green India Mission for implementation in Kolli hills landscape of Namakkal Forest Division at a cost of Rs. 72 lakhs and an amount of Rs. 70 lakhs has been incurred towards implementation of the scheme till date.

11.27. Conservation, development and sustainable management of medicinal plants

The scheme conservation, development and sustainable management of medicinal plants is a 100% centrally sponsored scheme. The National Medicinal Plants Board, New Delhi has approved the projects for 5 divisions at an outlay of Rs.3.37 Crore.

SCHEMES SHARED BETWEEN STATE AND CENTRE

11.28. Intensification of Forest Management Scheme

The erstwhile Integrated Forest Protection Scheme has been implemented as a centrally sponsored scheme. The components of the scheme are protection of forest resources by strengthening protection measures for controlling forest fires, survey and demarcation of the forest boundaries to prevent encroachments by constructing the cairns, improvement of roads,

provision of better communication facilities, preparation of working plans for scientific management of forest divisions, etc.

With a view to make the Integrated Forest Protection Scheme broader based, Government of India renamed this scheme as "Intensification of Forest Management". In addition to the above components, four more new components viz., protection and conservation of sacred groves, conservation and restoration of unique vegetation and ecosystems, control and eradication of forest invasive species and preparedness for meeting challenges of bamboo flowering and improving management of bamboo forests have been added. During 2014-15, it is proposed to implement this scheme at an outlay of Rs.4.20 crores.

11.29. Part-II schemes

During 2013-14, 7 part-II schemes were implemented at a cost Rs. 2.50 crores. During 2014-15, 14 new and innovative schemes under

part-II will be continued at a cost of Rs.3.23 crores (Annexure-3).

12. FOREST CORPORATIONS

12.1. Tamil Nadu Forest plantation Corporation Limited (TAFORN)

Tamil Nadu Forest Plantation Corporation Limited was established on 13.06.1974 with headquarters at Tiruchirappalli under Indian Companies Act, 1956. This Corporation has an authorized share capital of Rs.10 crores and a paid up share capital of Rs.5.64 crores. The entire share capital of the Corporation is held by the Government of Tamil Nadu. About 75,000 ha. of Reserved Forests were taken on lease from the Tamil Nadu Forest Department. As per the Government Orders, 30% of the annual turnover is being paid as lease rent to the department. The main objectives are to raise, maintain and harvest pulpwood and cashew to meet the needs of industries, to increase the productivity of forests, to provide rural employment, to conserve soil and

moisture and to supply firewood to meet the fuelwood needs of the public.

12.1.1. Achievements

The details of the plantations raised and expenditure involved during 2012-13 and 2013-14 are given in Annexure-4.

12.1.2. Pulpwood

The pulpwood supplied to paper mills during 2012-13 and 2013-14 are given in Annexure-4.

12.1.3. Cashew

Cashew is the second major revenue earner in TAF CORN. The details of revenue realized are given in Annexure-4.

12.1.4. Revenue and expenditure

The revenue and expenditure details of the corporation for 2012-13, 2013-14 and 2014-15 are given in Annexure-5.

12.1.5. Proposals for 2014-15

The details of fresh plantations to be raised and expenditure involved during 2014-15 are given in Annexure-5.

12.2. Tamil Nadu Tea Plantation Corporation Limited (TANTEA)

A Government Tea Project was started by the Government of Tamil Nadu for raising tea plantations in 1968, through the Forest Department with the socio-economic objective of rehabilitating the repatriates from Sri Lanka under the Shastri-Srimavo Pact. Later, the tea project was registered as a company under the Indian Companies Act, 1956 viz., "Tamil Nadu Tea Plantation Corporation Limited" and is popularly known as "TANTEA". The authorized share capital of this Corporation is Rs.15 crores and the paid-up share capital is Rs.9.96 crores. The entire share capital of the Corporation is held by the Government of Tamil Nadu. The main objectives are to establish

tea plantations and to employ and rehabilitate the Sri Lankan repatriates in the plantation schemes.

The corporation is maintaining plantations over an area of 4311.04 ha. on the lands leased out by Government of Tamil Nadu in four phases. Details are in Annexure-6.

12.2.1. Green tea leaves and made-tea production

The actual physical achievement of green tea leaves and made-tea for the year 2012-13 and 2013-14 are furnished in Annexure-6.

12.2.2. Revenue and Expenditure details

Revenue and expenditure details are furnished in Annexure-6.

12.2.3. Major initiatives taken during 2013-14

- As per the announcement of the Hon'ble Chief Minister, the Government has sanctioned Rs.40 lakhs under the HADP, for

providing amenities to the workers of TANTEA and to improve their living conditions.

- To raise the paid up share capital of TANTEA to undertake capital works viz. modernisation of Tea Factories and improvement of infrastructure facilities, the Government had sanctioned Rs.4 crores to undertake the capital works and released the amount during April 2013. Accordingly, 23 new machineries have been purchased and installation works are under progress. Similarly, 40 toilet blocks for labour quarters are being constructed.
- Intensive measures have been taken to harvest green tea leaves, engage the workers for harvesting green tea leaves, number of plucking rounds per month in a field and plucking average of labour to increase the productivity. As a result the

harvest of green Tea leaf has increased by 50 lakh kgs. and made Tea 12 lakh kgs., compared to last year. Similarly, the average daily productivity of labourers has increased from 38.32 kgs. to 43.17 kgs.

- In order to improve the quality and level of supervision TANTEA factories at Quinshola and Pandiar are being provided with Closed Circuit Television (CCTV) arrangement. TANTEA conducted 'Buyers Meet 2014' at Cochin and Coonoor to impress the buyers about the efforts taken to improve the quality of tea. Action is being taken to get ISO 22000 food grade quality certification for all the eight TANTEA factories this year.
- In order to improve the retail marketing of TANTEA, 4 types of dip tea bags i.e. cardamom tea, masala tea, ginger tea and black tea have been introduced in the retail market. A gift pack consisting of the above

100 tea bags with four flavours has been introduced which is well received by the market. In order to increase the sale of tea, for the first time, TANTEA has announced 10% festival discount on M.R.P to the retail consumers throughout the State during Pongal week. Such seasonal discount will be offered for one week in every quarter to give boost to the retail sale.

- Eco-Tourism centres are being developed at Coonoor and Naduvattam Tea divisions of TANTEA. A 'Tea Museum' at Naduvattam and a 'Tourist Tea Lounge' at Coonoor are proposed to be established under the Hill Area Development Programme for the benefits of Tourists.

12.3. Arasu Rubber Corporation Limited (ARC)

Arasu Rubber Corporation Limited with headquarters at Nagercoil has rubber plantations over an area of 4187.68 ha. of forest lands taken on

lease from the Forest Department in Kanniyakumari district, where the soil, climate and topography are conducive for the growth of rubber trees. The Corporation was registered on 01.08.1984 under the Indian Companies Act, 1956 and has been functioning with effect from 01.10.1984. The authorized capital of the Corporation is Rs.10 crores and the paid up share capital is Rs.8.45 crores. The Government of Tamil Nadu holds the entire share capital of the Corporation. There are 1504 permanent workers including 311 Sri Lankan repatriates.

12.3.1. Production and financial achievement

Production and financial achievements are furnished in Annexure-7.

13. CONCLUSION

Forests take long years to grow and mature, before they can be of lasting service to man. Enormous efforts have been taken to increase the forest / tree cover including the non-forest areas in

Tamil Nadu through massive tree planting programme and tree cultivation in private lands under TBGP. This Government will strive hard to improve the status of the local people as well as of tribals in order to gain their wholehearted support in forest conservation and development. This Government is ushering in a new era in forest administration, by making forestry a people's movement. Under the leadership of Hon'ble Chief Minister, the Forest Department is committed towards conservation and preservation of forests and wildlife which will sustain human survival. Further, the conservation and preservation of forests and wildlife will also provide livelihood options for human being and its sustenance.

M.S.M. ANANDAN
MINISTER FOR FORESTS

Annexure-1

Forest revenue

Sl. No.	Source of revenue	2014-15 Budget Estimate (Rs. in lakh)
a)	Sandalwood	2,000.00
b)	Timber	525.00
c)	Supply of raw materials to industries	87.41
d)	Other Minor Forest Produce	20.00
e)	Farm Forestry plantations excluding refund	1,900.00
f)	Sale of bamboo, cashew, softwood plantations, etc.	11.00
g)	Other receipts	1,456.06
	Sub total	5,999.47
	Deduct recoveries (-)	1,513.10
	Total	4,486.37

Annexure-2

Expenditure

Name of the Scheme(s)	2014-15 Budget Estimate (Rs. in lakh)
Non-Plan schemes	35,508.97
State Plan schemes	26,479.03
Centrally Sponsored Schemes (100%)	2,184.62
Schemes shared between State and Centre (50:50)	820.03
Total	64,992.65

Annexure-3

Part-II Schemes for 2014-15

Sl. No.	Name of the Scheme	Amount (Rs. in lakh)
1	Construction of rest house at Sivaganga and Wildlife Warden's quarters at Theni.	78.21
2	Inventory and assessment of biodiversity and preparation of Working Plan for Vellore division	5.00
3	Rescue and rehabilitation of spotted deer in Chennai city	44.73
4	Upgrading Information Centre at 'O' point and Suchindrum-Theroor Birds Conservation Reserve	6.00
5	Spotted deer signage board with solar sensors	10.00
6	Rock afforestation	10.80
7	Conducting Wildlife Census in 12 Territorial circles.	12.00

Sl. No.	Name of the Scheme	Amount (Rs. in lakh)
8	Formation of iron / concrete barriers in the course of elephant proof trench across Mungil pannai Odai, Pandithevar Odai in Kadayanallur Range	12.00
9	Planting agave for consolidation of forest boundaries.	7.00
10	Dibbling of palmyra nut in the forest boundaries	6.00
11	Identifying best practices and success stories in Forest Extension Divisions	1.10
12	Improvement of Pykara Boat house road by providing RCC culverts and drainage structures.	20.00
13	Raising of Tamarind seedlings in Reserved forest areas	10.00
14.	Bio-diversity Conservation through Eco-Tourism in Vaduvur Birds Sanctuary in Tiruvarur District	100.00
	Total	322.84

Annexure-4

Tamil Nadu Forest Plantation Corporation Limited Achievements

Sl. No.	Species	Physical (ha.)		Financial (Rs. in crores)	
		2012-13	2013-14	2012-13 (Actuals)	2013-14
1.	Eucalyptus	4112	4054	10.76	11.76
2.	Cashew	814	910	2.73	2.97

Pulpwood supply

Year	Quantity supplied (M.T)	Revenue (Rs. in crores)
2012-13	2,13,551	60.86
2013-14	2,27,699.95	69.11
2014-15 (Budget Estimate)	2,25,000	72.00

Cashew

Year	Revenue (Rs. in crores)
2012-13	6.23
2013-14	2.88
2014-15 (Budget Estimate)	8.90

Annexure-5

Tamil Nadu Forest Plantation Corporation Limited

Revenue and Expenditure

(Rs. in crores)

Year	Revenue	Expenditure	Profit (+) Loss (-)
2012-13 (Actuals)	84.98	52.17	(+) 32.81
2013-14 (Revised Estimate)	82.32	54.74	(+) 27.58
2014-15 (Budgetted)	95.64	62.25	(+) 33.39

Proposals for 2014-15

Plantations	Physical (ha.)	Financial (Rs. in crores)
Eucalyptus	4110	11.34
Cashew	850	2.51

Annexure-6

Tamil Nadu Tea Plantation Corporation Limited Area leased out to TANTEA

Phase	Year	Planted area (in Ha.)		
		Nilgiris	Anamalais	Total
Phase I	1969-1979	1850.74	..	1850.74
Phase II	1979-1981	591.10	..	591.10
Phase III	1982-1984	336.58	..	336.58
Phase IV	1990-1995	576.26	956.36	1532.62
TOTAL		3354.68	956.36	4311.04

Green tea leaves and made-tea production

(in lakh kgs.)

Details	2012-13 (Actuals)	2013-14 (Actuals for 12 months)
Harvest of green tea leaves	329.27	379.22
Made-Tea production	82.87	94.87

Revenue and expenditure details

(Rs. in lakh)

Year	Revenue by sale of tea and other items	Expenditure	Profit (+) Loss (-)
2012-13 (Actuals)	7416.17	7013.60	(+) 402.57
2013-14 (Actuals for 9 months)	6493.43	6392.61	(+) 100.82

Annexure-7

Arasu Rubber Corporation Limited

Production and financial achievement

Sl. No.	Particulars	2012-13 (Actuals)	2013-14 Revised Estimate	2014-15 Budget Estimate
a)	Production of Rubber (in M.T)	1467	1800	1900
b)	Revenue and expenditure			
	a) Income (in Crore)	25.12	41.60	62.27
	b) Expenditure (in Crore)	28.25	35.80	36.01
c)	Profit (+) or Loss (-) (in Crore)	(-) 3.13	(+) 5.80	(+) 26.26

TOWARDS A GREEN TAMIL NADU



Hon'ble Chief Minister launching massive tree planting drive to mark the occasion of her 66th birthday at State Police Headquarters, Chennai

GREEN DREAM COMES TRUE



Before Massive Tree Planting :
Moongilthuraipatti of Kallakurichi during 2012-13



After Massive Tree Planting :
Moongilthuraipatti of Kallakurichi during 2013-14

CARING FOR ELEPHANT CALF



Hon'ble Chief Minister visits an elephant calf at Mudumalai Tiger Reserve at Theppakkadu

NAMING THE TIGER CUBS



Hon'ble Chief Minister named the four white tiger cubs and three normal coloured tiger cubs at a function held at Arignar Anna Zoological Park, Vandalur

ELEPHANT GETS A SWEET TREAT



Hon'ble Chief Minister feeding an elephant at Mudumalai Tiger Reserve at Theppakkadu

VISITING ELEPHANT CALVES AT VANDALUR



Hon'ble Chief Minister visited the four orphaned male elephant calves at Arignar Anna Zoological Park, Vandalur

AUGMENTING THE INFRASTRUCTURE



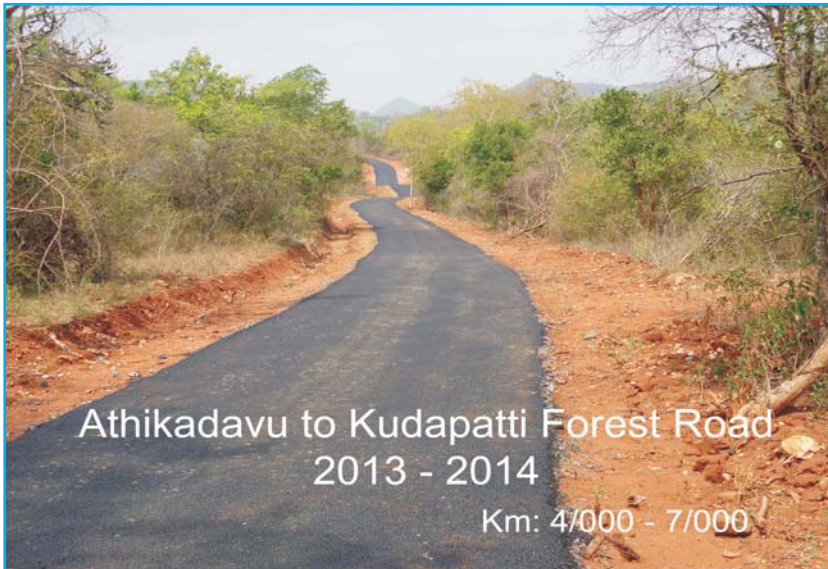
Hon'ble Chief Minister inaugurated 100 newly constructed forest department buildings on 25.06.2014

AUGMENTING THE INFRASTRUCTURE



Hon'ble Chief Minister inaugurated 100 newly constructed forest department buildings on 25.06.2014

QUALITY FOREST ROADS



Formation of Athikadavu to Kudapatti Forest roads for tribals under 13th Finance Commission

WATER TROUGHS FOR WILDLIFE



Creation of water trough at Sathyamangalam Tiger Reserve

FOREST PROTECTION WORKS



Anti-poaching shed-cum-watch tower constructed in Tirupattur division under 13th Finance Commission

ELEPHANT QUENCHES THIRST



Augmentation of water supply to wildlife in Sathyamangalam division

WATER HARVESTING FOR HEALTHY FORESTS



Check dam constructed at Salem under water conservation and canopy improvement scheme

PLANTATION FOR TIMBER



Teak plantations raised in the padugai of Velankudi canal bank of Thanjavur division

NEW INFRASTRUCTURE



Newly constructed Forest Range Office of Courtallam Range inaugurated by Hon'ble Chief Minister through video conferencing.

REPLANTING IN CYCLONE AFFECTED AREAS



Planting under the scheme 'replanting in Thane cyclone affected areas' in Villupuram division

FOREST CHECK POST



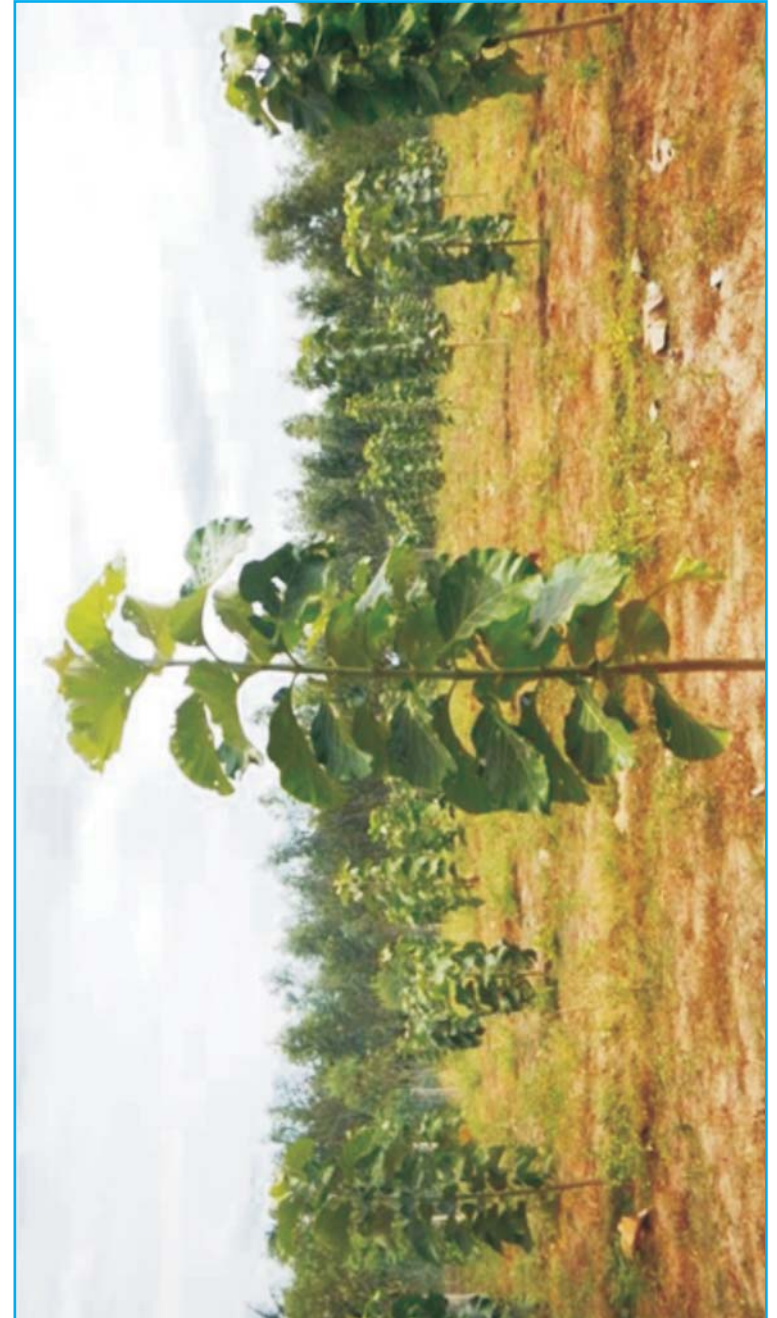
Check post constructed at Tiruppur division under 13th Finance Commission

WILDLIFE PROTECTION



Anti-poaching shed constructed at Sathyamangalam division under Tamil Nadu Biodiversity Conservation and Greening Project

TREE PLANTING IN PRIVATE LANDS



Planting in the private lands by Forestry Extension wing, Madurai
- Southern region under TBGP