

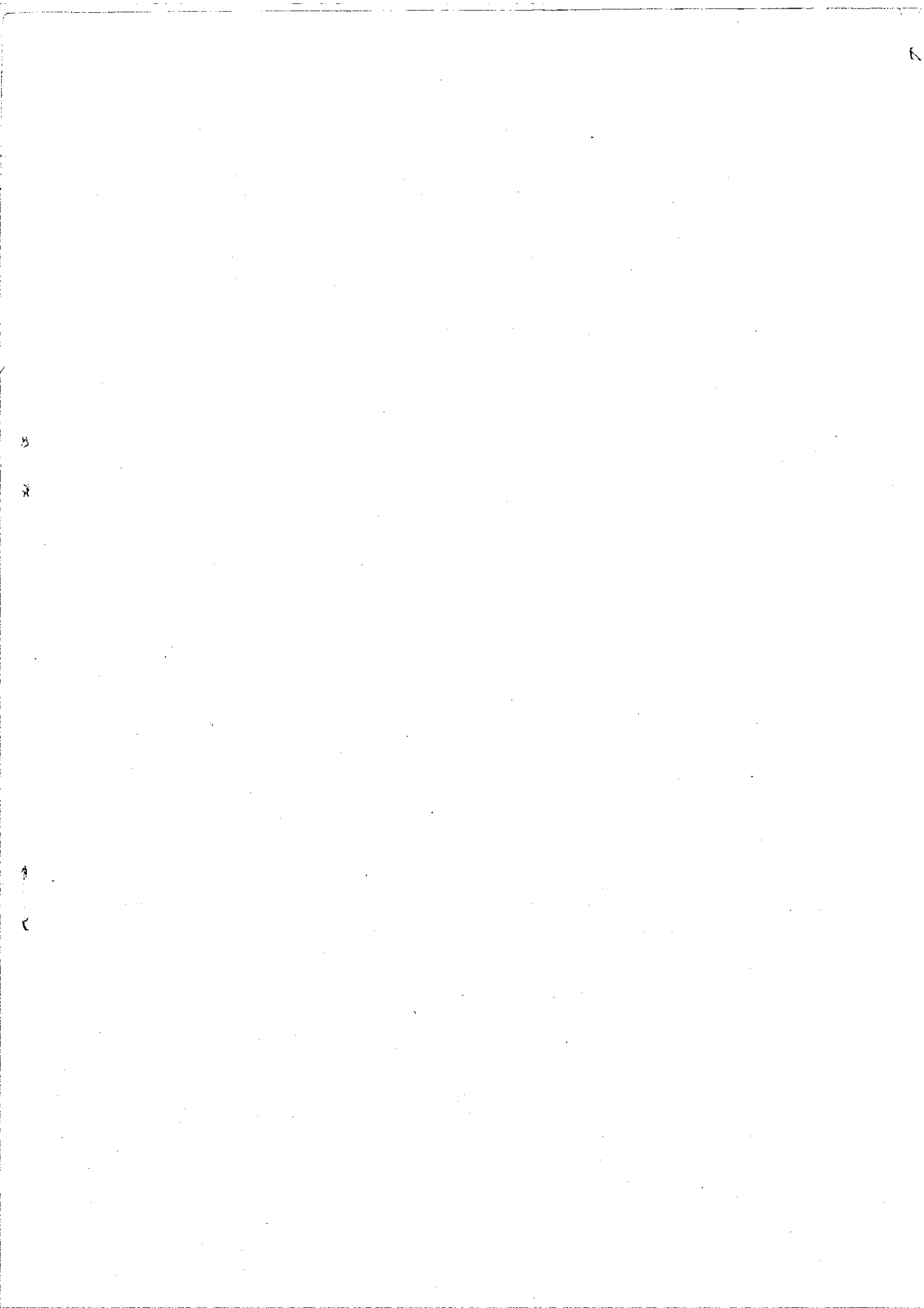
Date: 16-02-2006
FOREST DEPARTMENT
GUJARAT STATE
GANDHINAGAR

FORESTRY & WILDLIFE

2006-2007

ANNUAL DEVELOPMENT PLAN





1.6 FORESTS

Introduction

1.6.1 Forests which were developed and diversified from the earliest forms of plant life, played a very vital role in changing the earth's carbon-dioxide laden atmosphere which earlier enveloped the earth's surface into a more oxygen bearing atmosphere, and set the stage for the emergence of Animal life and ultimately, evolution of man.

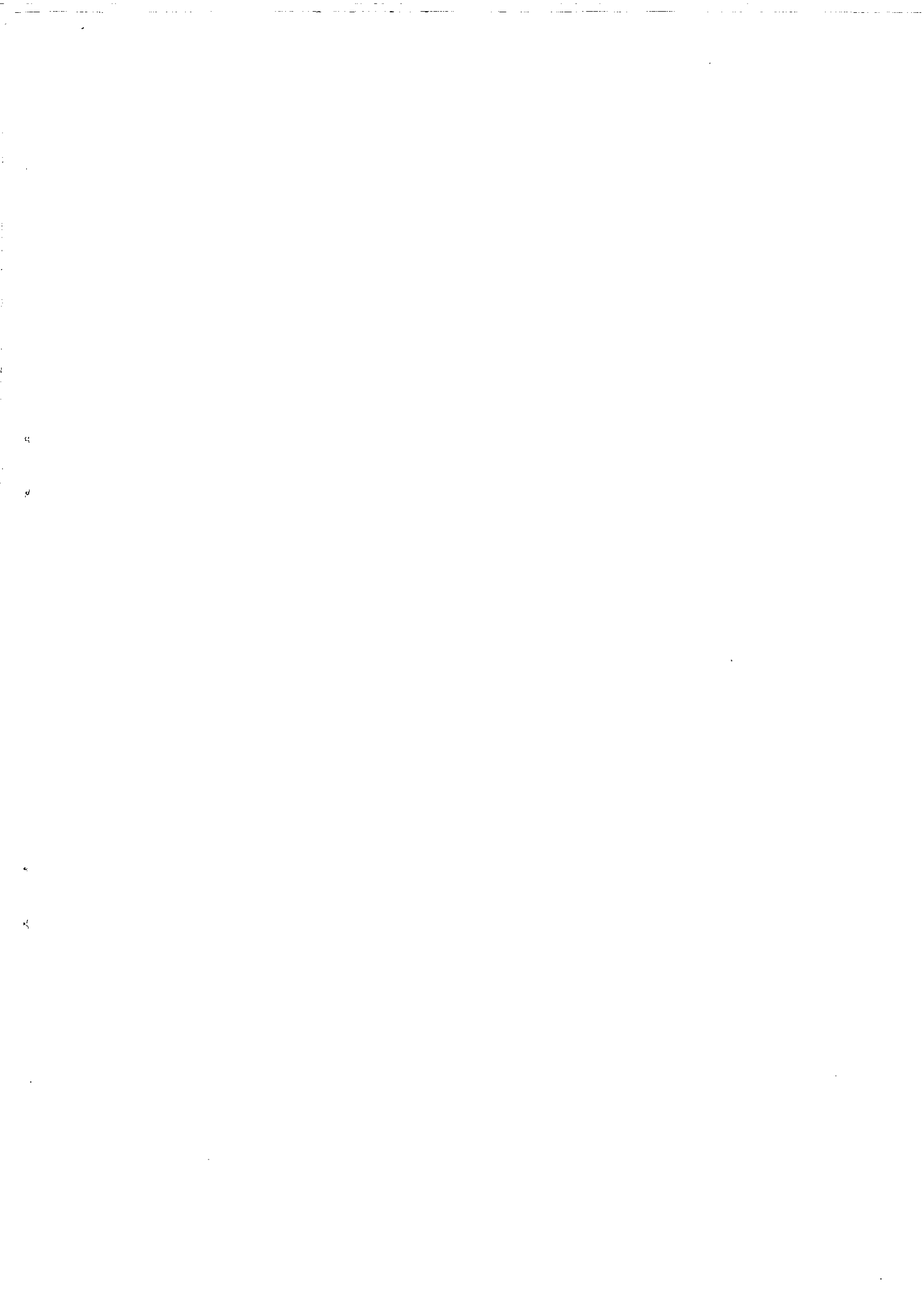
1.6.2 Even today, forests play an important role in moderating the climate, maintaining the soil mantle, improving soil fertility and improving the air quality and in regulating the flow of water in rivers and streams. If these intangible benefits could be monetised, the contribution of forests would be stupendous and would be higher than the direct benefits like fuel wood, timber, grass and other forest produce which we get from forest.

1.6.3 Approximately 10% of the geographical area of the State is legally designated as forests and it is just not possible to enhance this category of land use. The forests are irregularly distributed and confined mainly to the eastern and southern districts of the State. The situation is aggravated by the absence of tree cover from about half of the area. The forests of Gujarat can meet only about 13%, 5% and 18% of its timber, small timber (poles) and firewood requirements respectively. On the other hand, the climate and rainfall of the State are quite unpredictable. Agro-climatically, the State is divided into 8 agro-climatic zones. The rains are unpredictable and droughts are quite common (about 35 % of the area is chronically affected). Fodder becomes scarce during drought years and the State has to transport large quantities of fodder from far-off places to save the cattle from starvation. Category-wise land use details are as follows:

Land Use	(Area in Sq.km.)
Geographical area	1,96,024
Reporting area	1,88,129
Forest area	18,612
Non-agricultural area	11,384
Barren & Unculturable land	26,040
Permanent pasture & Grazing land	8,490
Misc. tree crops & Grazing land	40
Culturable waste	19,737
Current fallow	7,590
Other fallow	241
Net area sown	95995

Source: Socio-Economic Review (1999-2000) Gujarat State

1.6.4 It has been estimated that at least 33 % of the land area should be under forest cover to prevent the deterioration of our environment. The total area of forestland in Gujarat as per various legal categories is 18830 Sq.kms., which represents 9.61 % of total geographical area.



The protected forests area of Gujarat is 388.12 Sq.kms i.e. 2.06% of total forests area. If the protected Forest of Banni area of Kachchh, which is with the Revenue Department are included, the total area of the recorded forests in Gujarat would go up by another about 3000 sq.kms.

1.6.5 Only 7.7 % of Gujarat geographical area is under good forest covers. This is far below the National average of 23 % and woefully below the stipulated 33 % as per National Forest Policy of India. An urgent need was therefore felt to augment the tree cover both inside and outside the forest area. Larger allocations were made to the forestry sector from the 4th five-year Plan onwards and the strategy of raising large-scale plantations outside the regular forest areas under the Community Forestry Programmes was adopted. However, the high pressure on the forests for fuelwood and grazing coupled with the unpredictable nature of rainfall causing intermittent droughts affected the results.

1.6.6 During the 5th five-year Plan along with the increased financial outlay for plan an important Central Legislation in the form of Forest (Conservation) Act-1980 was introduced and Gujarat amended the Indian Forest Act 1927 to provide for more stringent punishment for forest offences. During the 7th & 8th Five Year Plans the increased protection and modification of plantation schemes to include more water percolation measures resulted in the real increase in forest cover in Gujarat as shown by the satellite imagery. Bolstered by these good results the strategy for the 9th Five-Year Plan laid a greater emphasis on conservation of forest and wildlife. Plantations were also proposed to be continued but with a view to making the people self-dependent for their needs of ***fuel wood, fodder and small timber.***

Social Forestry: -

1.6.7 The Maintenance of old plantation was carried out during the IXth five-year plan. During the period of IXth Five Year Plan the following awards were given by the Government of India for outstanding contribution towards social forestry in Gujarat.

1. Indira Priyadarshini Vrikshmitra Award 2003: - This award was given to Junagadh Forest Division by Govt. of India for their contribution in the field of forestry & Environment protection. The award consists of Rs. 100000.00.

2. Mahavriksha Puraskar 1997:- This award was given to Shrimati Dahiben Ravjibhai Patel of Uttarsanda, Dist. Kheda, Gujarat for raising "AMBLA" tree. (Emblica officianalis) The award consists of Rs.25,000 and certificate given by Govt. of India.

The State Government has laid maximum emphasis on afforestation through Social Forestry to increase tree cover. Plantations are also raised under special programmes such as River Valley Project, Sardar Sarovar Project etc. During the Eighth Five Year Plan (1992-97), an area of 306629 ha. was planted, in addition to distribution of 8616



lakh seedlings to public. Raising plantation on forestland, social forestry and covering community and strip lands and farm forestry over private lands received special attention during the period. Other noteworthy afforestation programmes are River Valley Projects and catchments treatment programme for Sardar Sarovar Dam. The achievement during the Eighth Five-Year Plan (1992-97) & Ninth Five-Year Plan (1997-2002) in the table below.

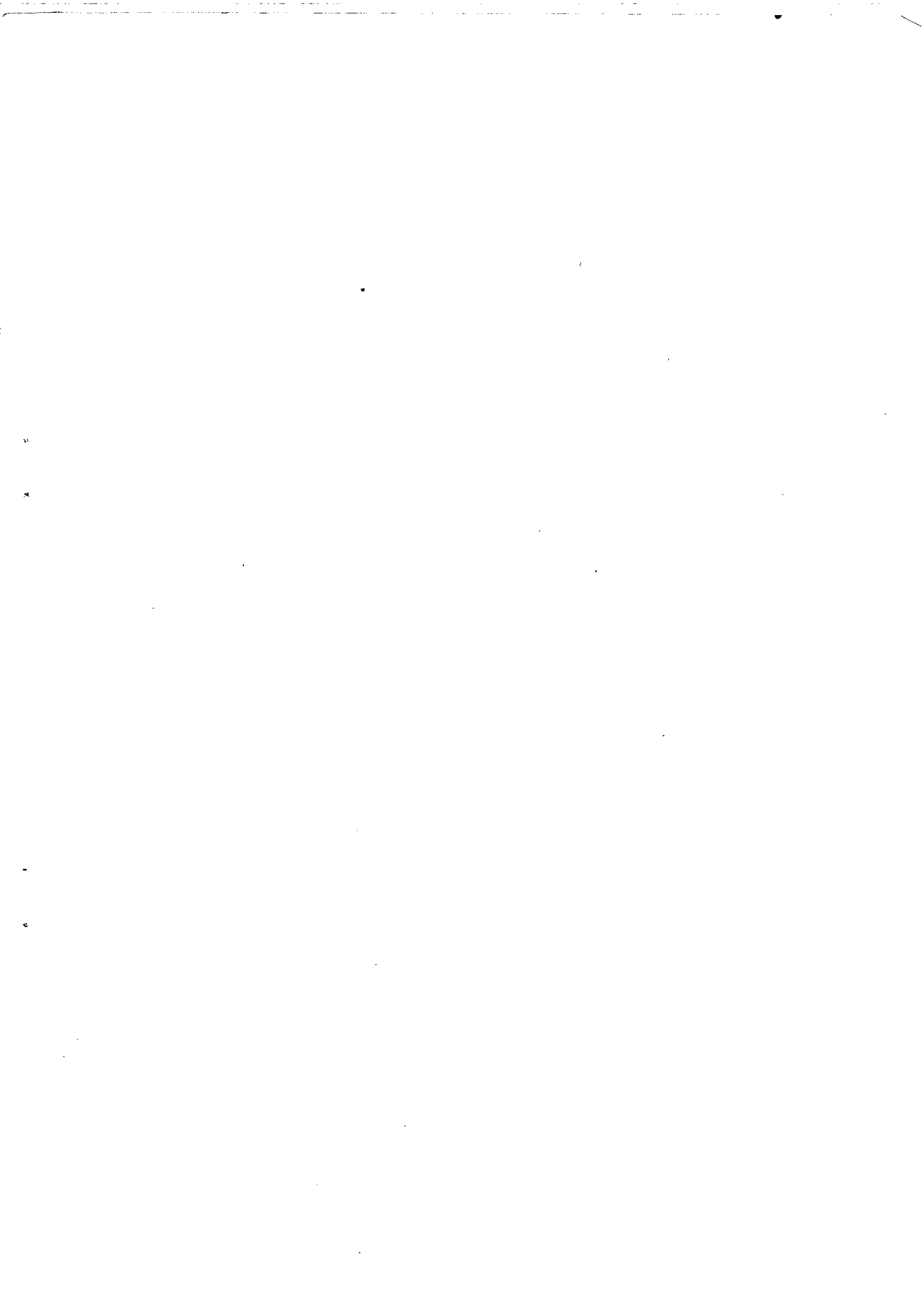
Sr. No.	Period	Seedlings Distribution (in lakh)	Area covered under Plantation (in Ha.)	Departmentally planted Seedlings
		Forest Dept.	Forest Dept.	
		Other Dept.	Other Dept.	
		3	4	5
		6	7	8
1	8th Five Year Plan (1992-1997)	8616	-	244915
				61714
2	9th Five Year Plan (1997-2002)	8936	199	313212
				27125
3	10th Five Year Plan (2002-07)	1267	330	47895
				8610
1	2002-03	1092	111	52000
				130
2	2003-04	1635	-	76001
				4019
3	2004-05	1640	-	56602
				-
4	2005-06			
				628.00

Under 10th Five Year Plan, during the year 2005-06, 628 lakh seedlings were planted over an area of 56602 ha. and 1640 lakh seedlings were distributed. Gujarat stood first among States of India in 20-point programme on the subject of afforestation point no.16 (1) and 16(2). During the year 2006-07, it is proposed to distribute 2000 lakh seedlings and to afforest 85000 ha area.

During the year 2004-05, out of an outlay of Rs. 149.60 crores, the expenditure incurred was Rs.146.41 crores. For the year 2005-06, out of an outlay of Rs.151.93 crores, the likely expenditure will be around Rs.151.93 crores.

As per the State of Forest Report, 2003, Forest Survey of India, Dehra Dun, Gujarat has total 14946 sq.kms. (7.62 % of total geographical 8601 sq.km of tree cover in forest areas.

The Forest Survey of India has carried out survey of tree cover outside forest area recently. As per its status report of 2003, in Gujarat the tree cover outside forest area is 10586 sq.km, which works out to be 5.40% of total land area. Therefore the total forest and tree cover for Gujarat is 25432 sq.km, which works out to be 13.02% of geographic area.



The Planning Commission in its approach paper for the 10th plan envisaged that the forest cover of the country should be increased to 25 % by 2007 and to 33 % by 2012. This will mean an increase of 15 % from the present level (nearly 10 %) in Gujarat in the next five-year period. To achieve this, the afforestation, plantation and regeneration would then be required to be undertaken in an area of 28.5 lakh ha. in five years i.e. 5.7 lakh ha. per annum. Looking to the availability of land for afforestation both in forest and out side, it seems almost impossible to adhere to the suggested norms by GOI. More over, to handle an annual target of 5.7 lakh with the present staff it is also not possible. The State of Gujarat has therefore decided to increase forest cover nearly 5 % in 10 years time for which an annual target of around 75,000 ha. in forest area and nearly 25,000 ha. outside forest i.e. 1,00,000 ha. per annum need to be taken. Additionally seedling distribution to the tune of 25 crore has to be done to cater the need of the public. Considering the land availability, the figure may be kept at 5.00 lakh ha for 5 years. The break-up will be as follows.

Forest area in ha.	3.75 lakh
Non Forest area in ha.	1.25 lakh
TOTAL	5.00 lakh Ha

In order to affect this change, the Working Group Govt. of India (MOEF) strongly feels the Centre's share could be 2/3rd while the States may contribute 1/3rd of their annual budget outlay since the states will not be in a position to augment their forestry sector outlay substantially over the next five years.

However, with the present outlay on forestry of around Rs.160.00 crores, it is possible to carry out plantations in 55248 Ha areas only and to plant 12000 ha under seedlings distribution. In all about 69248 ha area is brought under tree cover. With this rate, it will be possible to cover only 13% during Tenth plan. To achieve 25% tree cover in 2007, the fund inflow into forestry sector shall have to be around Rs.245.00 crores in 2006-07 by covering an area of 1789000 ha which is a very difficult task to achieve with the given financial outlay of Rs.161.44 crore and staff available.

Objectives

1.6.8 Maintenance of environmental stability through preservation and where necessary, restoration of the ecological balance that has been adversely disturbed through serious depletion of the forests.

1. To conserve the bio-diversity in the forests and **Protected Areas**.
2. To strengthen adequately the protection of forests and **Protected Area**.

3. To check the process of the degradation which **includes Soil Erosion, Desertification, and Denudation** of watershed.



4. To increase the availability of forest produce particularly to rural and tribal communities by increasing tree cover.
5. Creating a massive people's movement through JFM with the involvement of women for achieving the objectives mentioned above.
6. To minimize the pressure on forests by enhancing the self-reliance for the forest produce.

Strategies:

1.6.9 To achieve the above objectives, the strategy of the department will be as that of the 10th Five-Year Plan as recommended by GOI in draft Plan for the 10th plan. They are as follows.

1. Convergence of afforestation schemes to avoid duplicity and channelise smooth flow of funds.
2. Introduction of multi-cropping system. Promotion of agro-forestry / farm forestry, involvement of private sector in agro forestry plantation. Remove bottlenecks and review felling and transit rules.
3. Standardization and rationalization of cost norms under afforestation scheme.
4. Provision of quality planting materials through improved and innovative technologies in nursery and plantation.
5. Suitable mechanisms for forest protection against fires, pest attack and other diseases.
6. Strengthening of JFM network for greater involvement of people and sustaining such programs.
7. Strengthening of monitoring mechanism through establishment of IT network to the divisional/ Range levels.
8. Revival of working plans and strengthening of human resources planting and management.
9. Taking up soil and moisture conservation works with emphasis on ground water recharge.
10. Resolving people related, policy related and legal issues.
11. To provide effective protection to forests and protected areas to conserve bio-diversity
12. Use of **IT and work towards electronic Management Information System-MIS**

Thrust areas of ADP-2006-07

1. Massive tree planting works in forest and non-forest areas to increase tree cover
2. Soil conservation and water harvesting
3. Shelter belts plantations
4. Bamboo planting
5. Increase of tree planting in non-forests areas and in command catchments area of different river basins
6. Bio-diversity conservation and wildlife management
7. Tree improvement



8. Promoting eco-tourism in around national park & sanctuaries, natural sites
9. Involvement of people through JFM in forestry activities
10. Welfare through special schemes and programmes
11. Use of Information technology for FMIS

Outlay for Annual Plan 2006-07

1.6.10 The outlay provided for forestry and Wildlife for the year 2006-07 is Rs. 16144.00 lakh against an outlay of Rs. 15193.28 lakh for 2005-06. In view of inflation that includes increase in daily wage of Rs 4.80, i.e. 5.68% (from Rs. 84.50 per day to 89.30), this is likely to have adverse impact on the programme. However, efforts are being made to allocate maximum to thrust area schemes. The scheme wise break up is as under:

Sr. Programme	Outlay for 2006-07
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1. Forest administration	110.00
2. Forest Protection	250.00
3. Roads and Building	100.00
4. Forest Conservation and Development	5417.00
5. Community Forestry	4095.00
6. Special area programs-Dangs area	330.00
7. Research & Training	1190.00
8. IFDP	50.00
9. Tribal Welfare	65.00
10. Wild Life conservation	1388.00
11. Compensatory afforestation	2014.00
12. River Valley projects	46.00
13. Farmarked for TASP	523.00
14. 12 Finance Commission	400.00
13. BADPP (CSS)	166.00
TOTAL	16144.00

FST-1: Forest Protection:

1.6.11 Forest Fire Control Measures

Forest fires cause considerable damage to forest habitat. The forest fires, in addition have devastating effect on forest growth and regeneration. As a measure of fire control, firelines are prepared and maintained during dry season i.e. from November to June next year. Fireguards keep constant watch to prevent fire in forest areas.



An outlay of Rs. 50.00 lakh is proposed for 2006-07

required. The outlay for 2005-06 was Rs. 50.00 lakh. godowns for storing of grass and other commodities etc are also available. Further, buildings such as rest houses, Office buildings, in the interior areas of the state where staying facilities are not located

Construction of Buildings:- Important forests of the State are located roads, culverts causeway, where necessary. For undertaking various forestry operations in time, provision of proper communication is necessary. Under these schemes, it is proposed to improve the existing forest roads and construct new

Roads and Buildings- Development of Communication- Roads**1.6.15 FST-3: Communication and Buildings****An outlay of Rs. 100.00 lakh is proposed for 2006-07.**

provided under this programme for the year 2005-06. Govt. for introduction of IT. An outlay of Rs. 120.00 lakh has been divisional, Circle and head quarter level. In keeping with the policy of It is proposed to strengthen IT cell by introducing computers at

1.6.14 FST-2: Planning, Evaluation and Information Technology

Integrated Forest protection scheme. **Rs 100.00 lakh** provision of 25% share of state under CSS of **outlay of Rs. 250.00 lakh is proposed for 2006-07, which includes** A budget outlay Rs 343.00 lakh is provided for the year 2005-06. An

and (2) Survey and demarcation. FOREST PROTECTION having the components (1) Forest Protection, These schemes are clubbed together into one scheme namely - period of five years.

demarcate the forest and unauthorized cultivation boundary in a forestland has been regularized recently. It is, therefore, planned to cultivators prior to 1980 has become necessary. Over 20000 ha of demarcation of forest deleting the forest area regularized to the apart from regular demarcation of forest, an extra survey and the ground and maintain the demarcation pillars (Cairns). This year, is, therefore, necessary to demarcate the boundaries very clearly on from poor forest dwellers and also for other developmental activities. It Forest is an important natural resource that faces constant pressure

1.6.13 Demarcation & Survey

this scheme in 2002-2003. forest protection. Budget outlay of Rs. 361.02 lakh was provided for local people will be formed and incentives will be provided to them for operational under this scheme. Protection committees by associating maintained and the mobile squad and striking force are kept degradation. The forest wireless network to be expanded and protect the forests it would not be possible to prevent their wood, timber and grazing and unless effective measures are taken, to Gujarat's major forests are constantly under great pressure for fuel

1.6.12 Forest Protection



The program to arrest the advancing of desert sands was initiated for creating shelterbelt to act as a barrier against the desert winds. Further this scheme of the state corresponds to DF-- model of G F D P. It is proposed to merge this scheme with SMC and afforestation in forest areas.

1.6.19 Desert Border Plantations

The program proposes to take-up intensive soil and moisture conservation works followed by planting with suitable species. The scheme aims at reducing soil erosion and regulating flow of water in the rivers and streams of the area. This is the scheme in which plantation targets corresponding to GFDP plantation models will be undertaken from the year 2003-04 onwards. The outlay for 2005-06 was Rs. 4393.90 lakh. The outlay for the year 2006-07 is Rs. 5417.00 lakhs. Staff of so far sanctioned under AORFP (CSS), SSP, IFDP are being transferred to SMC scheme and these staff are engaged in plantation programme territorial forests. Therefore the outlay has been increased suitably under the scheme for 2006-07.

It is pertinent to note that almost all the plantation target used to be undertaken in various State schemes were adjusted towards one or the other plantation model under Integrated Forestry Development Project (IFDP) when OECF externally aided IFDP project came into existence in the year 1995-96. Now IFDP project is over on 31-3-2001. It has become, therefore, inevitable to take up advance action works for 2002 plantation onwards under the on going State schemes. From 2003 onwards the schemes are implemented under the new models approved by the state

1.6.18 Soil and Moisture Conservation

1. Soil and Moisture Conservation
2. Desert Border Plantations
3. Coastal Border Plantation
4. Border Area Development Programme (state plan)
5. Drip Irrigation
6. Plantation of Minor Forest Produce & medicinal plant.

Due to rationalization of schemes being implemented by forestry sector, the following schemes are merged into one scheme namely Forest Conservation and Development from the current annual plan:

1.6.17 FST-5: Forest Conservation and Development:

The proposed outlay for 2006-07 is Rs. 50.00 lakhs

An outlay of Rs. 195.00 lakh is provided for construction of Van Bhavan in the year 2005-06.

1.6.16 FST-4: Construction of Van Bhavan



Conservation and Management of wildlife in India has assumed great importance in view of the dwindling habitat of wildlife. The department has been alive to the needs of the conservation of wildlife by implementing various schemes and soliciting public support. The State has 21 Wildlife sanctuaries and 4 National Parks covering about 8.6% of total geographical area of the State. Due to merger of various schemes under rationalisation of existing schemes, only one scheme

1.6.25 FST-6: Wildlife Conservation:

lakhs

The total outlay for scheme for the year 2006-07 was Rs. 5417.00

lakhs

The total outlay for scheme for the year 2005-06 was Rs. 4393.90

will be applicable in models -D1, D2, D3, D4, D5 in these areas. Bamboos as a mixture @ 100 plants per ha in central and North Gujarat. This cottage industries. Hence it is proposed to plant 5000 ha of bamboos in non-bamboo areas to increase availability of bamboos for encouraging Bamboos Plantation: It is proposed to introduce bamboos in non-scheme with scheme of SMC and afforestation in forest areas.

Under this scheme it is proposed to raise species yielding minor forest products, which are in great demand. It is proposed to merge this

1.6.24 Plantation of Minor Forest Produce & medicinal plant.

merged with SMC and afforestation in forest areas. forests areas & model no II was for non forests areas. Model -I is for outlay of Rs. 182.93 lakh. It has two models I & II. Model no.I is for kotar land was introduced from 2000-2001 in Saurashtra with an The program of Drip irrigation in barren hills and barren plane &

1.6.23 Drip Irrigation - Plantation on Barren Hills

International Border touches the district of Kachchh and Banaskantha. Due to geographical location these districts are subjected to vagaries of nature. Looking to the refractory nature of the area greening of these lands at a faster rate becomes essential. Also with a view to generate employment for local poor, It is proposed to merge this scheme with SMC and afforestation in forest areas.

1.6.22 Border Area Development Programme

Mangrove Between low and high tide zone, mangrove plantations are raised along the coast. This model correspondence to DF-4 model of

1.6.21 Mangrove Plantation

This model correspondence to DF-- model of GFDP. Coastal Plantation Gujarat has a long coastline of about 1661 kms. A narrow strip along the coastline consists of loose sand. In order to stabilize the sand belt and protect land from salt laden winds, this scheme has been initiated. Along the coast and above the tidal zone, plantations in the width of one km. are taken to create shelterbelts.

1.6.20 Coastal Plantation



will be operational under wildlife conservation-namely **Conservation and Management of wildlife**. Hence all schemes of the management of all National Parks and Sanctuaries and all schemes under implementation for the management of wildlife outside National Park and Sanctuaries will be merged into one scheme namely **Conservation and Management of wildlife**. This scheme will comprise of

1. Management and development of wildlife in National Parks and Sanctuaries :
2. Conservation and Management of wildlife outside Protected areas
3. Scheme for Grant in aid to GBER Foundation & Indroda Park
4. Eco development
5. Eco tourism
6. Development of zoological parks and nature parks .

This scheme will have six models or items as shown above:

1.6.26 Conservation and Management of wildlife in Protected areas:

The program aims at management of all National Parks and Sanctuaries. The main item of works under this scheme are maintenance of all Guest Houses, maintenance of all rescue centers, providing guzzler system tanks and maintenance of roads, providing proper food and water facilities for the wildlife, maintenance of crocodile breeding center, maintenance of buildings, providing lodging & boarding facilities to the visitors, maintenance of wireless system etc.

Completing survey and settlement of the **Wild Ass Sanctuary** areas and carries O & M expenditure for 14 personnel such as Range Forest Officer (4), Forester(7), Surveyor(2) & Clerk-cum-typist(1) engaged for the management of the Marine National Park.

The proposed outlay for 2006-07 is Rs. 630.00 lakhs.

1.6.27 Conservation and Management of wildlife outside Protected areas:

A large number of wild animals are found outside forest area or PAs too. They need utmost care for management. The program aims to develop the habitat by providing water, food, fodder and protection. The outlay proposed for the year was Rs. 105.00 Lakh for 2005-06.

Scheme for Minimizing and preventing depredation by Wildlife to Human life, Human activities like Cultivations, crops Properties This scheme is specially drawn up for the areas where there is a higher concentration of carnivores like lions, panthers and other animals which can potentially damage the human property and lives. There are wild herbivores also in large numbers in many areas. They cause damage to crops of farmers because of which man - animal conflicts are increasing and wildlife is losing sympathy of the people. It



was necessary to prevent this kind of damage. To minimize the monetary loss Government compensates the person for damage done by wildlife to human beings or their livestock at rates fixed by the Government. However, there is no provision to compensate the damage to the crops. The scheme, therefore, aims to prevent damage to the crops by 1. Providing barbed wire fence along the forest boundaries touching the farms of farmers on 50% sharing basis that is the farmers have to pay 50% cost of such fencing, (Rajkot, Jarnagar, Ahmedabad, Kheda, Gandhinagar, Bharuch, Baroda-73-village, 146KM) 2. translocate the animals damaging the crops to such other suitable areas, 3. Engaging observers to locate such animals and push them to forests. With the implementation of these schemes occurrence of depredation problems will be reduced. This scheme is merged with the **Conservation and Management of wildlife outside Protected areas.**

The outlay for 2005-06 was Rs. 205.00 lakhs.

The proposed outlay for 2006-07 is Rs. 185.00 lakhs.

1.6.28 Eco-development Project:- A programme of Eco-development aiming at development of areas adjoining sanctuaries and national park is introduced as new scheme during the 10th plan as Eco-Development around places of religious and tourist importance. The outlay for the 10th plan is about Rs.775.00 Lakh. (C.S.S.) An outlay of Rs.145.00 lakh was made for the year 2005-06.

The proposed outlay for 2006-07 is Rs. 148.00 lakhs

1.6.29 Eco-tourism

This is a new program to be introduced during the 10th plan for the wild-life education interpretation, training and Eco-tourism. Here education is mainly nature education through nature camp for the students, teachers and other elite group. The training is for departmental staffs working for wildlife wing. The interpretation programme is for visitors visiting the national parks and sanctuaries. The Eco-tourism programme is for the public. The outlay of the 10th plan is Rs.815.00 lakh. A provision of Rs. 57.00 lakh was made in the year 2005-06

The proposed outlay for 2006-07 is Rs.100.00 lakhs.

1.6.30 Scheme for Grant in aid to GER Foundation& Indroda park

Gujarat Ecological Education and Research Foundation, Gandhinagar is an autonomous institution and is engaged in the activity of environmental education and ecological research. In order to achieve it's objectives various sections like Arboretum, Shrubarium, medicinal plants, cactus house, green house, walk-in-aviary, fish pond, snake house whale skeleton etc. have been set up and animal enclosures, buildings, camp sites, roads, etc., have been maintained and improved. 1619 nature education camps have been organized. To create awareness, the workshops, seminars, lectures, competitions etc. were organized during World Forestry Day, World Environment



Day, Wildlife Week etc. Srishti magazine is published. It includes expenditure on establishment, expenditure for ongoing activities and part provision for office buildings, research projects, etc. Outlay for 2005-06 was Rs. 145.00 lakh. The scheme of **Establishment of Wilderness Park at Indroda is being merged with this scheme from 2006-07**

The proposed outlay for 2006-07 is Rs. 125.00 lakhs.

1.6.31 Development of zoological parks and nature parks

Sakkarbaug, Victoria Park, Kabirvad

The program aims to maintain and develop zoological park and establish Nature Park. The outlay provided for the year 2005-06 was Rs. 145.00 Lakh.

The proposed outlay for 2006-07 is Rs 200.00 lakhs.

The total outlay for scheme on wildlife conservation is Rs.1388.00 lakhs

FST-7: Research & Training :

1.6.32 Research

Forest research plays important role, particularly in enhancing productivity, development of various techniques, conservation of Gene pool, etc. For achieving this, research centers have been established in various agroclimatic zones. With a view to demonstrate results of modern techniques, Demonstration cum research centers have also been established in 19 districts. For conservation study of succession, preservation plots have been demarcated. Seed orchards, clones plantation and progeny trials have been taken up. A regional research institute has been established. In Dang, Botanical Garden had been established at Waghai. Green house technology and root seedlings for raising plantations.

1.6.33 Training

Training of Staff:- The need of trained manpower is a pre-requisite for implementation of any project, Activities related to forestry and such other subject related to management of natural resources also requires constant updating of technical know-how. Hence it is necessary to make sufficient provision for training for the staff and officers of the department. For the implementation of various training programs the department had established Gujarat Forest Rangers' College at Rajpipla, Forester's Training Center at Kakrapar and Guard Training Center at Dungarda. Under IFDP facilities for Training including hostel have been created at Gandhinagar. Scheme for wildlife education, interpretation & training, Forest and wildlife signify a wide spectrum of values, which serve the interest of human society. In order to provide opportunity for intimate contact with nature, Nature Education Camps are organized. Gujarat state is pioneer in this approach. Moreover Farmer's shibir are organised with a view to impart training in plantation techniques as well as other requisite know how to farmers.



In addition to training within the state, about 60 officers get trained in forest management, GIS, remote sensing, participatory management, wildlife, JFM etc. Moreover, all IFS officers are sent to National level institutes on various important topics every year. IFS Officers of 20 years service and 17 years service are given 2 weeks training before promotion to CCF level and CF level. Every year two officers are sent to Wildlife Institute of India, Dehradun for the 10 months diploma course on wildlife management.

1.6.34 Women Component in Nature Education Camp

Considering the role, which can be played by women and girls, in conservation, about 33% participation i.e. app. 13000 participants, in Nature Education Camps, would be female. The total outlay for women component would be about Rs. 15.60 lakh, @ Rs 120/ participant, for women's participation.

1.6.35 Training of staff and officers in Environmental Education :

Appropriate Human Resource Development is the key for better Administration and Management as it helps in tackling problems to achieve desired goals with efficiency. In the developing field of Environmental and Ecological Conservation and wildlife management, regular training of staff and officer is essential. Such training helps in their capacity building and also provides exposure to new technology, strategy and policy issues in the respective fields. Under this scheme, officers and staff members are sent for short duration training at the institution of excellence such as Wildlife Institute of India, Indra Gandhi National Forest Academy, Indian institute of Forest Management. Etc. Besides, short-term training courses were also conducted at Gujarat Forest Rangers College, Rajpipla. RTC Kakrapar, Guard Training Center Dungarda and Training centre at Gandhinagar, on the identified subject and issues, essentially required for the better performance of officers and staff, of Gujarat Forest Department.

1.6.36 Forest Publicity:

It is of utmost importance to disseminate information about utility of forests and also about exemplary work done by the department to the people. Forest Publicity also plays an important role in ensuring proper communication with people to achieve critical minimum support for related themes, like JFM, Conservation of Biodiversity and to create awareness as well as to inform people about various beneficiary schemes. Significance of generating suitable publicity material in the form of audio and video programmes films, literature, pamphlets, stickers, hoardings etc. to let this information reach the people cannot be overstated. Celebration of various events like World Environment Day, World Forestry Day, Wildlife Week, Tableau during Independence Day and Republic Day, exhibitions, newsletter etc. are other activities, which help in creating mass awareness. Involvement of NGO in such activities is also of importance.

During the year 2005-06 provisions have been made for Rs. 1053.28



- Construction of van kutirs and van chetna kendras in all districts of the State.
- Extension and motivational activities programmes,
- Organizing farmer's shibires and van mahotsava celebrations,
- Distribution of solar cookers,
- Wood saving devices: installation of improved crematoria in rural areas for the community
- Wood saving devices: installation of improved crematoria in rural areas for the community

following works:
has been made under these components. These activities include the
programme too. Over the years, noteworthy and substantial progress
There are some other related and support activities of social forestry

- Seedling distribution.
- Environmental plantations
- Fodder Development,
- Rehabilitation of Degraded Farm Lands,
- Village woodlots (Rainfed / Irrigated),
- Strip Plantations (roadside, railway side and canal banks),

categories of non-forest lands, as follows:
Specific types of models have been in vogue for tackling the different

raising of seedlings and tree planting activities.
farmers, women, private individuals, etc. are directly involved in
governmental / non-governmental organisations, institutions, schools,
the people, by the people and of the people. A large number of
leading state in this field. Social forestry is said to be a pioneer and
for planting trees on non-forest lands and became a pioneer and
Gujarat Forest Department launched a 'Social Forestry Programme'
distribution of forest resources within the state. As early as 1969-70,
seventy percent of villages have no forests because of uneven
possible for the state to enhance this category of land use. About
10% geographical area legally designated as forests and it is not
1,96,024 sq.km). However, Gujarat is a forest poor state with only
geographical area under forests (one third of its geographical area of
Gujarat should, therefore, maintain about 65,000 sq.km of its
geographical area of the country should be maintained as forests.
According to the National Forest Policy of 1988, one-third of the

1.6.37 FST-8: Community Forestry Project

Community Forestry :

The proposed outlay for 2006-07 is Rs. 1190.00 lakhs

outlay has been increased suitably for 2006-07.
related activities are being transferred to Research scheme. Hence this
staff sanctioned under IFDP scheme working in research works and
lakh under State plan for research, communication & training. The



Basic objective of planting more and more trees have been principally achieved as overall achievements were quite substantial and millions of standing trees on private and common lands are the visible proof of its success. This programme has brought a real turn about in the long standing degradation of common lands. It has created a good demonstration effect and visual impact of green cover. It has also shown its potential to become an integral part of rural and urban environment and has a vast potential to provide important opportunities for meeting the growing needs of the society, particularly the rural countryside and the interior parts of the state. It has contributed a great deal of employment generation in rural areas and has been helpful in significant upgrading of forestry knowledge of the people. Other valued aspects of social forestry include the recreation and landscape improvements, improvement in habitat for wildlife of diverse kinds, an effective means to check pollution hazards. Substantial production of forest produce has provided lot of relief to the rural people and has also helped in reducing the pressure on our forests. Throughout the state, the people are now able to partially procure their needs of fuel and some other forest produce (fruits, pods, leaves, twigs, branches, etc.). Hundreds of sawmills in the state are now utilising the wood materials obtained from the trees planted under social forestry.

The important schemes for social forestry works are covered State funded Community Forestry (CFP), Special Component Plan (SCP), Decentralised Peoples' Nurseries (DCP) and for raising of trees near the water harvesting structures, Afforestation of barren hilllocks through drip irrigation, Dang Malki Plantation etc. new activities of social forestry are described briefly as under:

Promotion of non-conventional energy saving devices to reduce pressure on forests: As a part of strategy to reduce the burden on the forests specially the needs energy in and around the forest area promotion and use of non-conventional sources of energy and energy saving devices is a must. In this scheme alternate sources of energy and devices will be provided to the people living in and around the forests.

Biodiesel Fuel Plantation: Social forestry wing will plant 300 ha area in 2007-08 by planting Jatropa and karanj in wasteland, kothars, gaucher land and tetractory areas. Besides this, in all departmental plantations, Jatropa seeds will be sown on the trench mounds in forest and non forest areas. This will cover an area of 1000 ha (notional)

1.6.38 Forest Information Centres

Forest Information Centers will be developed at all district head quarters to create awareness, knowledge and interest in the conservation of Forest and Wildlife. These centers will also work as forest information centres showing all forests activities, role of Forestry and Ecology.



Forest information centre at Ahmedabad is being developed which will not only cater to district information system but also it will be developed as state centre. During the year an amount of Rs.30.00 lakhs will be provided to complete the centre. They will be maintained and upgraded as and when the situation and demand arises.

The outlay for the social forestry works in 2005-06 is Rs 3940.00 lakh. It is proposed to allocate Rs. 2818.00 lakhs for community forestry including Rs.30.00 lakhs for upgradation of DIC at Ahmedabad, Rs 390.00 lakhs for seedling distribution, Rs.600.00 lakhs for special component plan and Rs.132.00 lakhs for Drip irrigation in wastelands.

The outlay for 2005-06 wais Rs. 3940.00 lakhs.

The proposed outlay for 2006-07 is Rs. 4095.00 lakhs.

1.6.39 FST-9: Compensatory afforestation:

The following schemes being implemented are merged into one scheme namely scheme of **Compensatory afforestation:**

1. Compensatory Afforestation Regularization of Unauthorized Cultivation on Forest lands

2. Compensatory Afforestation (User Agency)

3. Establishment of special cell for implementation of Forest Conservation Act, 1980.

4. Acquisition of Private forests

1.6.40 Compensatory Afforestation Regularization of Unauthorized Cultivation on Forest lands

(i) Regularization of unauthorized cultivation in forest area prior to 1967

The Government of India has approved the de-reservation of 10900.47 ha. of area towards regularization of unauthorized cultivation in forest area prior to 1967 with a condition to carry out Compensatory Afforestation on equivalent degraded forests lands. Compensatory Afforestation on degraded forest area of 10901 ha. has been completed.

The plantations of **7400 ha.** raised from 97-98 to 99-2000 are required to be maintained, as envisaged in the scheme, for 4 years after the planting. Thus, the provision of Rs. 59.59 lakh for Maintenance of these plantations is made.

(ii) Regularization of unauthorized cultivation on forestlands prior to 1980 Government of India has also finally approved the de-reservation of 21082.33 ha. Unauthorized cultivation on forest lands prior to 1980, with a condition to carry out Compensatory Afforestation on 29770 ha. of non-forest land identified under land Bank.

Plantation on 7543.5 ha. of non-forest land have been raised. Remaining **22227 ha.** area will be covered under plantations from 2001-2002 to 2009-2010.

The outlay proposed for 2006-07 is Rs. 20.00 lakhs.

made for 16 staffs salaries etc. and works .
 This is 100% CSS scheme, however GOI does not bear expenditure of staff and the state has to bear 10% cost of the project as the guidelines of GOI. Hence, a provision for 2004-05 was Rs. 20.18 lakh

1.6.44. Dantivadi River Valley Project (DRVP).

FST-10: River Valley Projects:

The combined outlay for the year 2005-06 for Scheme of Compensatory Afforestation was Rs. 1937.40 lakhs
The combined outlay for theyear 2006-07 for Scheme of Compensatory Afforestation is Rs. 2014.00 lakhs

An outlay of Rs 0.00 lakh is proposed for 2006-07.

year 2005-06 an outlay of **Rs. 0.00 lakh** was provided.
 compensation in accordance with the provisions of the Act. For the acquisition Act-1973, the owners of the private forest are entitled for bringing them under scientific management. Under the private forest acquired about 1187 sq.kms. privately owned forest areas in 1973 for

1.6.43 Acquisition of Private forests : Gujarat State Government have

The proposed outlay for 2006-07 is Rs. 14.00 lakhs.

There is a unit at state level for the implementation of Forest Conservation Act, 1980 consisting of (1) Chief Conservator of Forests, (1) Dy. Conservator of Forests, (1) Accountant, (2) Driver and (1) Guard. The outlay provided for the year 2005-06 is Rs. 13.00 Lakh.

Conservation Act, 1980.

1.6.42 Establishment of special cell for implementation of Forest

The proposed outlay for 2006-07 is Rs. 850.00 lakhs.

year 2006-07, 2856 ha will be covered
 lakh. An outlay for the year **2005-06** is Rs. **850.00** lakh. During the Plantation under user agency for the year 2001-2002 was Rs 652.65 The outlay for New Plantation, advance work and maintenance of old condition as violation of FCA.

be, at the cost of the User Agency. GOI views Non compliance of this degraded forest area against the forest land diverted, as the case may raised on the land provided by the user agency or on double the from GOI under FCA), Compensatory Afforestation is required to be forest land is diverted for any non-forestry activities (with approval under the provisions of the Forests Conservation Act, 1980, when a As per the rules and guidelines framed by the Government of India

1.6.41 Compensatory Afforestation (User Agency)

The proposed outlay for 2006-07 is Rs. 1150.00 lakhs.

During the year 2006-07, 2645 ha will be covered
 For the above mentioned three activities of unauthorized cultivation Rs. 1074.40 Lakh was provided for the year 2005-06.



1.6.45 Sabarmathi River Valley Project (DRVP).

This is 100% CSS scheme, however GOI does not bear expenditure of staff the state has to bear 10% cost of the project as the guidelines of GOI. Hence, the outlay for 2005-06 was Rs. 0.00 lakhs.

The outlay proposed for 2006-07 is Rs. 26.00 lakhs

1.6.46 FST-11: Tribal Welfare:

The following schemes being implemented are merged into one scheme namely scheme of Tribal Welfare:

This scheme will have two models namely

Individual Beneficiary Scheme and Development of Forest Settlements

1.6.47 Individual Beneficiary Scheme

With a view to create sense of belonging amongst rural masses towards the forest to earn the good will of the forest dwellers and to prevent the exploitation of tribal by money lenders and middle men it is necessary to continue the scheme introduced in the past for the welfare of tribal and weaker sections living in and around the forest areas. In this scheme, in order to bring about clarity and for budgeting convenience, the works to be done in non tribal and Dang tribal areas will be undertaken in plan from the coming year while the works to be undertaken in tribal areas (other than Dangs) will be from SCA funds.

Tribals are an integral part of the forest Eco-system. In order to create a sense of belonging towards forests and to reorient the forestry programme towards the development of the tribals this scheme will be continued. Under this scheme, in the component of Kotwalia Welfare primitive tribals produce bamboo articles and depend for their livelihood on the sale of bamboo articles. Under the programme of wood workshop, carpentry training is imparted to the tribal youth Under Tribal component of this scheme staff expenditure is borne on plan while works are undertaken in SCA (Non-Plan).

An outlay of Rs. 25.00 lakh was provided for the year 2004-05 scheme with similar objectives is also implemented under SCA (Non-Plan).

Dhanvantri - Ayurvedic Farming : Medicinal Plants of Ayurvedic importance will be raised for distribution in tribal area. An exclusive nursery of nearly two hectares will be established in each tribal Division where seedlings will be raised through application of modern techniques. The main medicinal plants are **Kali musli, Ardushi, Kalmegh, Ashwagandha, Sarpagandha, Brahmi, Gethimadh, plants of Triphala group, Kumbhar pata, Bhiringaraj, Shikakai, etc.** There will be total twelve plots out of which two plots will be raised in Dang District. Medicinal plants so raised will be supplied to the tribal free of cost after imparting due training at the time of lifting of seedlings. For establishing a centre of 2 ha., nearly Rs. 2.5 lakh are required. Further, for imparting training at least twice a season, nearly Rs 20000/- per division will be required. The scheme may encourage



some entrepreneurs to develop financially viable medicinal farming land use that may be at par or more remunerative to agricultural practice in vogue.

Two ongoing schemes FST - 24 individual beneficiary and FST - 25 tribal welfare have been merged into one having three components as stated above in this merged schemes, an outlay of Rs. 34.87 lakh is provided for 2005-06.

The proposed outlay for 2006-07 is Rs. 40.00 lakhs (Plan) and in SCA Non-Plan is Rs. 40.00 lakhs.

1.6.48 Development of Forest Settlements

In the past, the forest settlers helped the department in carrying out forestry operations. For this purpose, they were allotted forestland for cultivation for their livelihood. Since, these settlers are poor, department has taken up various programme for their development. The programme includes individual Beneficiary items like supply of agriculture inputs, kits, bullock carts, and providing subsidy for digging of well, purchase of pump set, installation of bio-gas etc, and community facilities like construction of school buildings, approach road, electrification etc. An Outlay of Rs. 14.82 lakh was proposed for 2005-06 in plan for staff cost.

The proposed outlay for 2006-07 is Rs. 25.00 lakhs and in SCA Non-Plan is Rs 100.00 lakhs.

The total outlay FOR 2006-07 under this scheme is Rs. 65.00 lakhs.

(I) Direction and Administration

1.6.49 FST 12: Secretariat Economic Services

Forest appears in the Concurrent list of subjects in the Indian Constitution. Consequently a series of issues are required to be referred to the Government of India for its clearance, which has resulted in increase in correspondence between the State and Government of India. In order to cope with this work a special cell has been created in the secretariat. An outlay of Rs. 8.60 had been kept for the 2005-06.

The proposed outlay for 2006-07 is Rs. 10.00 lakhs.

1.6.50 FST-13: Integrated Forestry Development Project

Integrated forestry Development Project aided by the OECF Japan (now JBIC, Japan) has been launched from the year 1995-96 This project was sanctioned at the cost of Rs. 608.47 crores for a period of 5 years from 1995-96 to 2001. The project aims at Integrated Forestry Development encompassing various spheres of activity of the department like territorial forestry, wildlife, social forestry, training, research, orientation, publicity, etc.

For the year 2005-2006 an outlay of Rs. 570.00 lakh has been sanctioned by the Government. Proposed outlay for the maintenance of works carried out under this project for 2006-07 is Rs.50.00 lakh.

The proposed outlay for 2006-07 is Rs. 50.00 lakhs.

1.6.51 FST-14: Special Areas Program:

The schemes being implemented in **Dangs district** has been regrouped and a new nomenclature is given as special area program. Under this scheme following models will be implemented. These models are being implemented in other districts of south Gujarat also.

1. Soil Moisture conservation and afforestation in Forest areas.

The provision for 2006-07 is 180.00 lakhs

2. Community Forestry

The provision for 2006-07 is 10.00 lakhs

3. Forest protection

The provision for 2006-07 is 80.00 lakhs

4. Tribal Welfare

The provision for 2006-07 is 30.00 lakh

5. Buildings

The provision for 2006-07 is 30.00 lakh

The detailed notes are given under relevant portions in other schemes.

The provision for 2006-07 is 330.00 lakhs

1.6.52 FST-15: Tribal area sub plan:

The outlay proposed for Tribal area sub plan is Rs.51.55 crores, which works out to be 31.93 % of the total outlay. Besides this, under Forest Development Agencies formed in the tribal districts, an outlay of Rs. 8.94 Crores will be available for the tribal development. Thus in all about Rs 60.49 crores will be spent in Tribal areas. **The outlay for 2005-06 was Rs. 4465.49 lakhs**

The proposed outlay for 2006-07 is Rs. 5275.00 lakhs.

1.6.53 Ear Marked fund for TASP -This fund is for district level tribal schemes placed by Tribal Department with Project Administrator in the eastern belt of Gujarat. Tribal Development schemes prepared by local DCF are to be approved by District Tribal Committee and administrative approval is to be obtained by local Project Administrators. This is one type of Vivekadhin Fund managed by tribal Dept.

The outlay for 2005-2006 was Rs. 523 lakh.

The proposed outlay for 2006-07 is Rs. 523.00 lakhs.

1.6.54 Special Component Plan (SCP) :

Forestry works for Scheduled Caste beneficiaries: Gujarat state has about 7.41% of its population belonging to Scheduled Caste and it is, therefore, necessary to implement schemes of forestry for the welfare of these people. The budgetary provisions for SCP should be about 7.5% of the total budget of the forest department. It needs to be mentioned here that forestry works are mostly labour oriented and provide a large amount of wages for the poorer section of the society, including the

