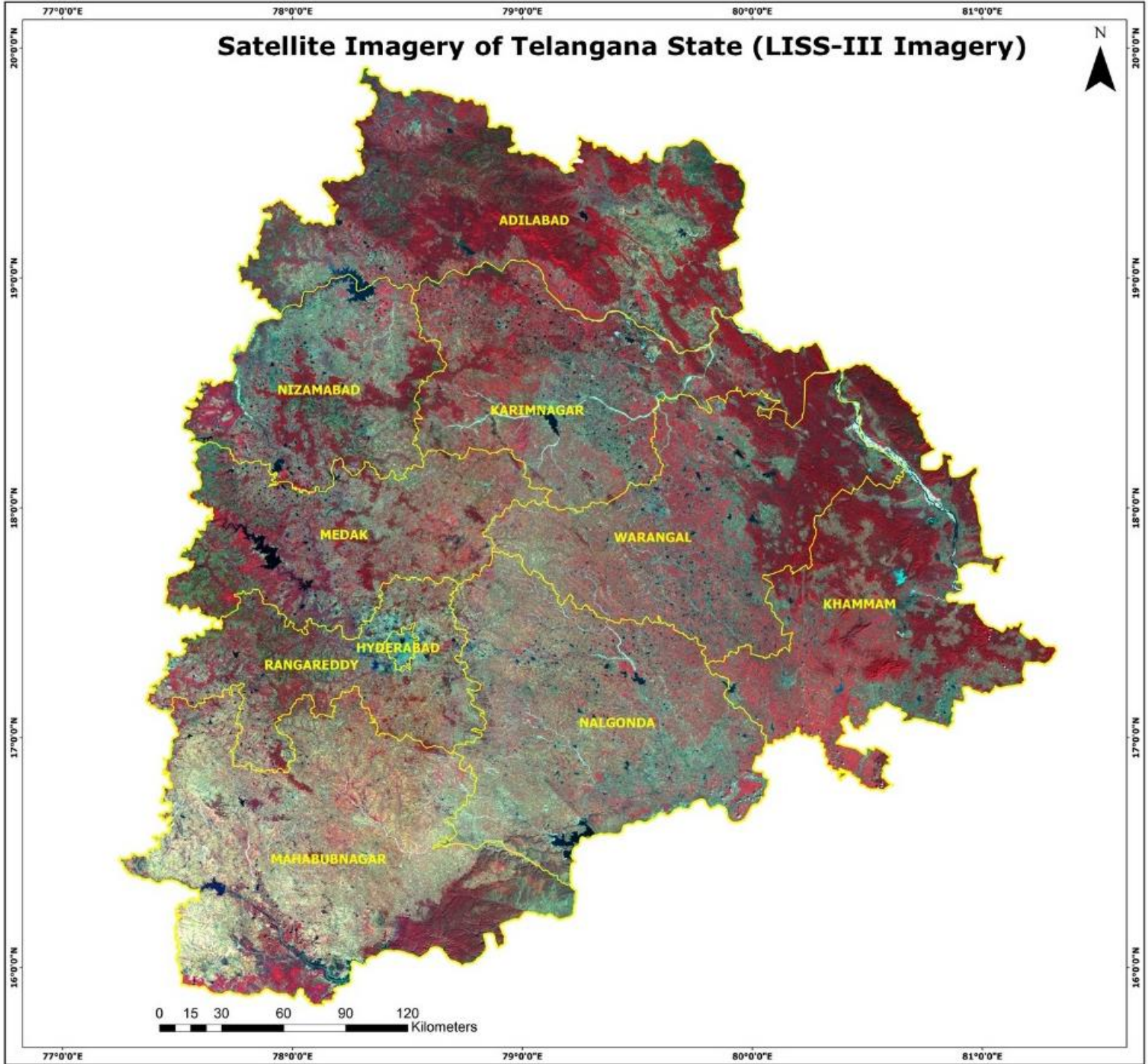


**FORESTS
OF
TELANGANA**



Satellite Imagery of Telangana State (LISS-III Imagery)



Forests in Telangana State

Total Geographical Area of the State
(in Lakh Ha)

112.101

A. Inside notified forests

Notified Forest Area of the State
(in Lakh Ha)

26.903

% of notified Forest Area
to Geographical Area

24%

B. Outside notified forests

Trees Outside Forests (in Lakh Ha)

2.738

% of TOF to Geographical Area

2.44%

Diversity in Flora and Fauna

Floral Diversity:

- 535 Tree species
- 245 Shrubs
- 300 Climbers
- 1565 Herbs
- 294 Grass species

Faunal Diversity:

- 103 Mammal species
- 365 Bird Species
- 78 Reptile species
- 21 Amphibian species

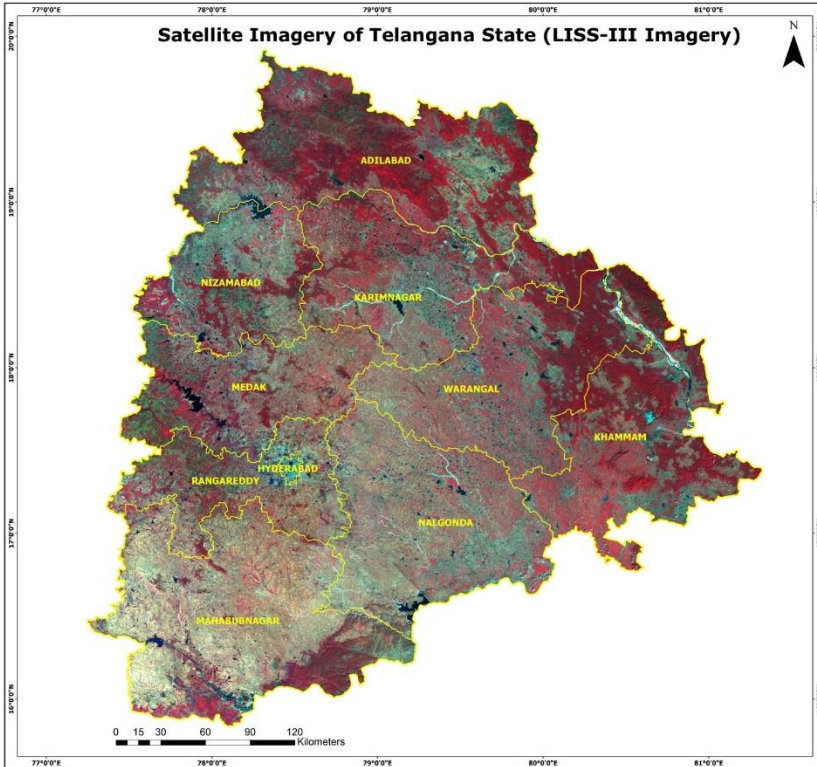


STATE OF FORESTS



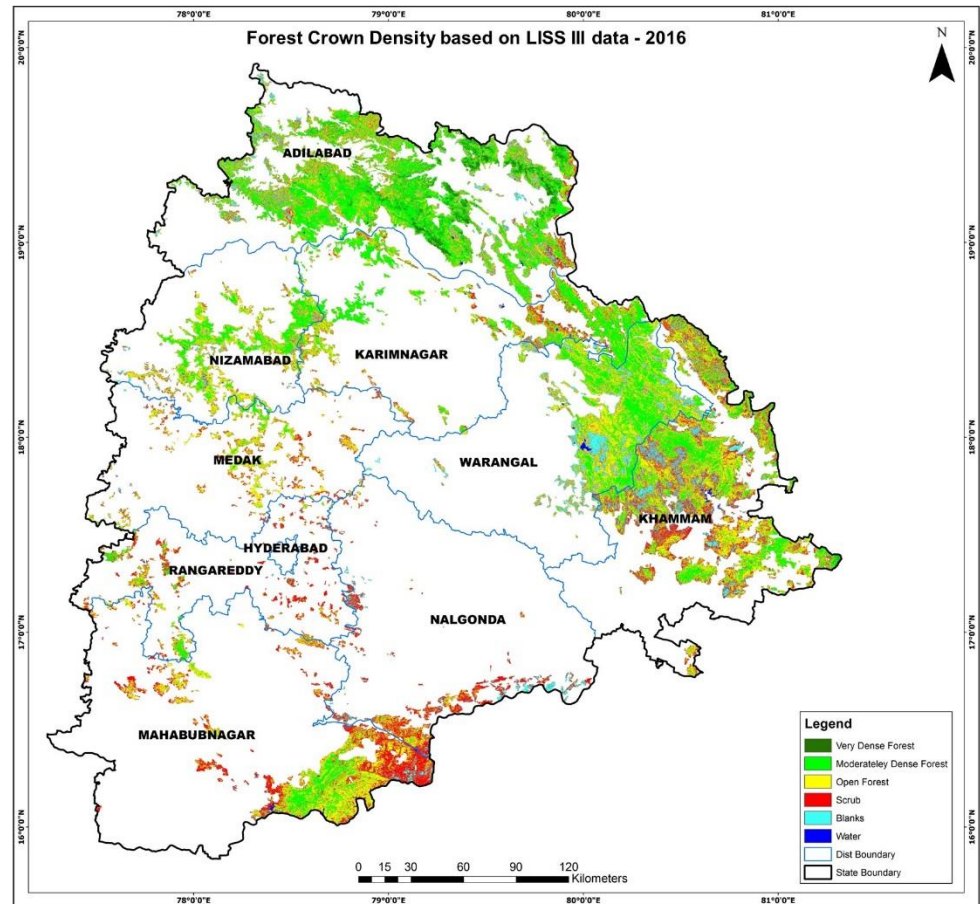
Class-wise Forest Cover

Satellite Imagery of Telangana State (LISS-III Imagery)



- Total Geographical area of the State: 112101 Km²
- Recorded Forest Area: 26904 Km²
- % of Recorded Forest Area to Geographical Area: 24.00
- Forest cover of State based on the interpretation of Satellite Data: 16504.33 km²
- Extent of Forests under PAs: 5856 Km²
- Trees cover Outside notified Forests: 6827.63 Km²

Forest Crown Density based on LISS III data - 2016

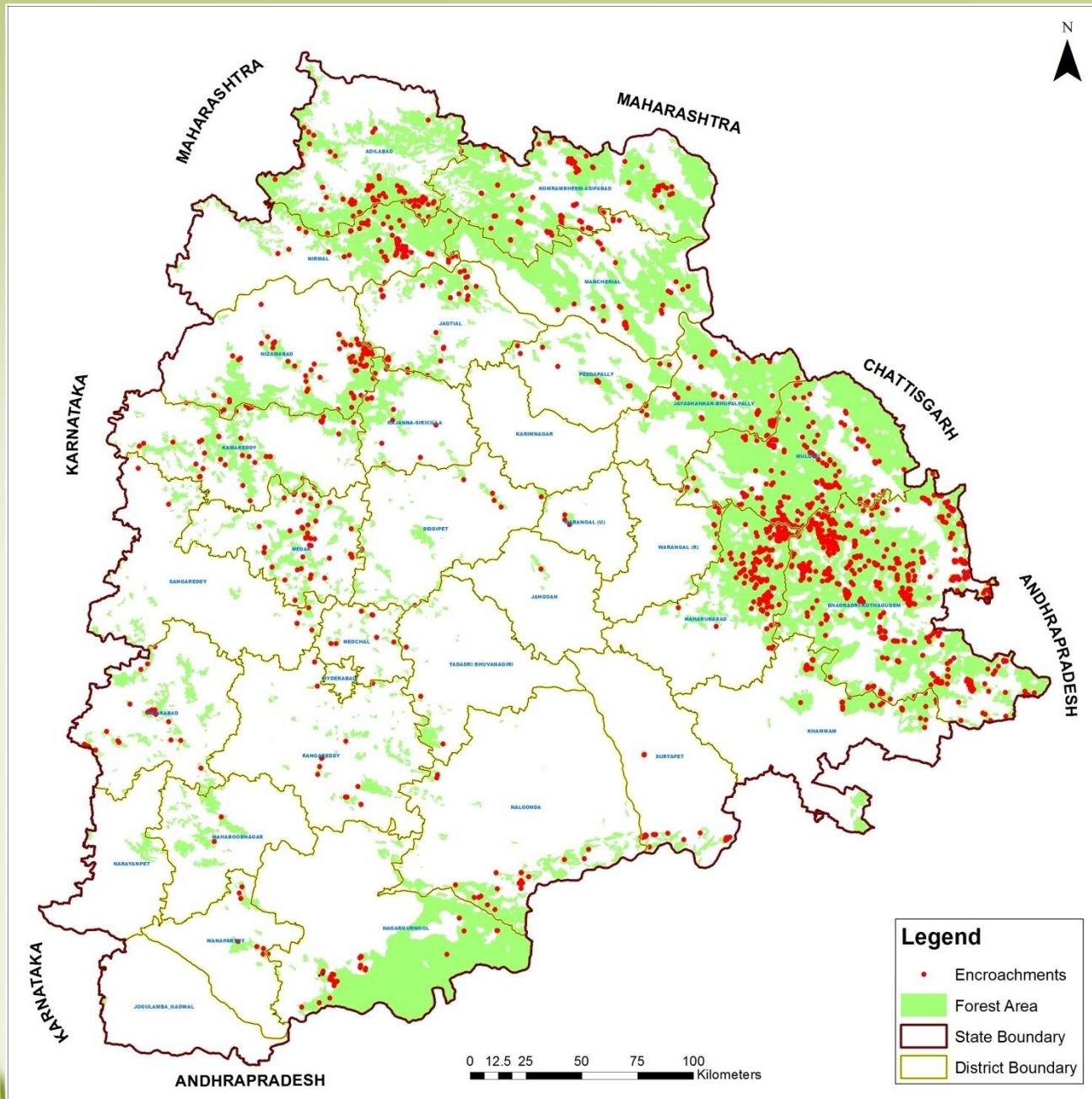


S. No.	District	Canopy Density Class (Area in Km ²)						Total
		Very Dense Forest	Moderately Dense Forest	Open Forest	Scrub	Blanks & Others	Water Bodies	
1	Adilabad	267.93	2661.24	1464.46	1030.06	1661.55	16.07	7101.31
2	Karimnagar	0.00	1123.96	697.20	304.98	227.23	7.90	2361.27
3	Khammam	18.58	1322.60	2024.95	848.92	1755.84	24.39	5995.28
4	Mahabubnagar	0.15	493.25	1291.28	983.52	216.06	58.59	3042.85
5	Medak	0.00	109.28	474.71	227.56	149.02	2.54	963.11
6	Nalgonda	0.00	7.71	172.02	414.25	286.79	8.38	889.15
7	Nizamabad	0.00	604.07	690.24	110.37	355.10	8.64	1768.42
8	Hyd & Rangareddy	0.00	110.70	181.79	301.59	162.13	2.67	758.88
9	Warangal	0.00	1356.68	1431.53	105.66	1117.05	12.51	4023.43
State Total		286.66	7789.49	8428.18	4326.91	5930.77	141.69	26903.70

State of Forests

- Extents of good forests – 818248 ha
- **Large part of forests is degraded & some under encroachments.**
- **Under the RoFR Act 2006:**
 - 1,62,168 Ha**
- **Dominantly blanks, sheetrock:**
 - 1,24,017 ha**
- **Area under encroachment:**
 - 2,86,453 Ha**
- **Extent of degraded forests:**
 - 12,90,397 Ha**

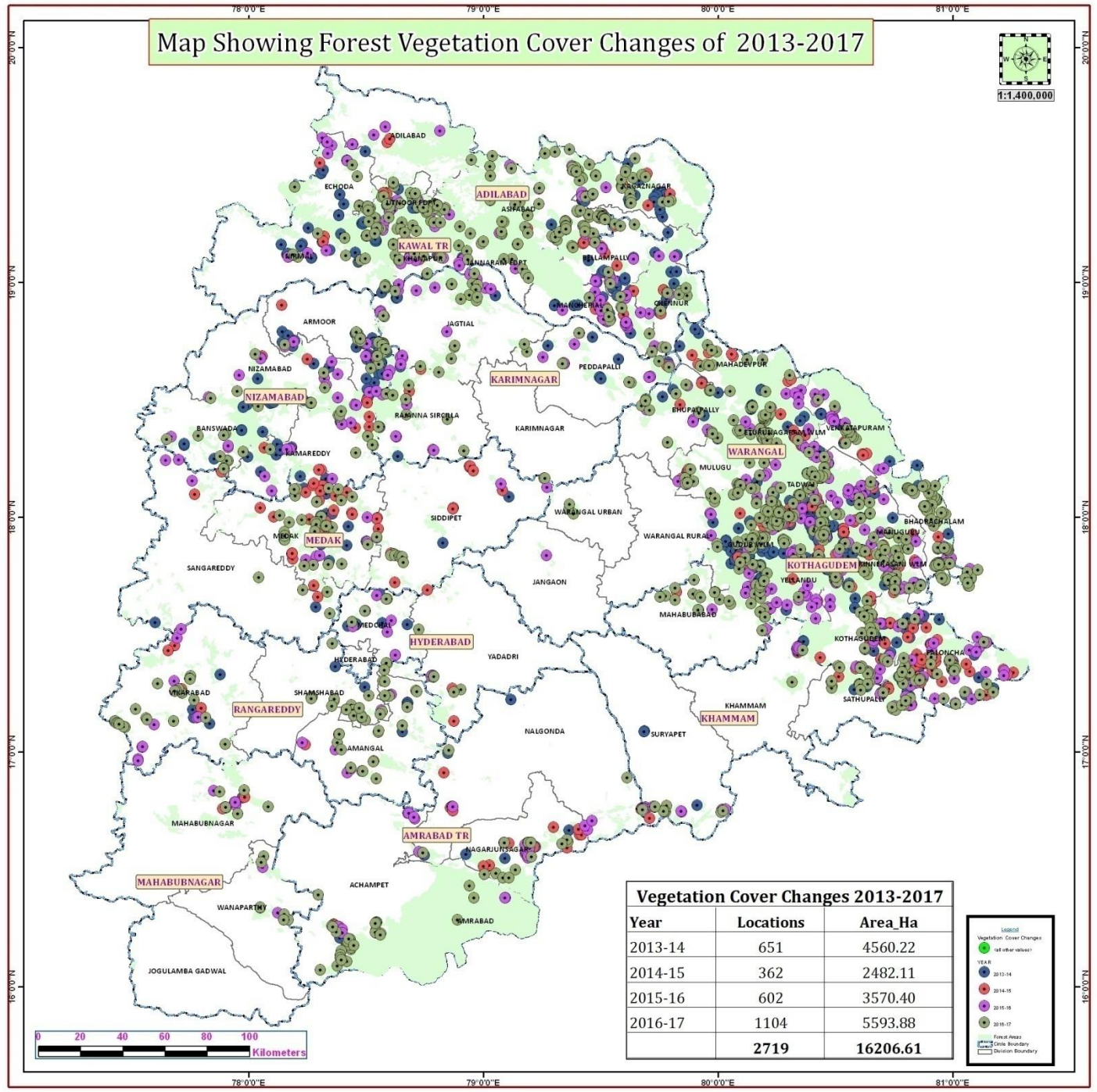
Map Showing Encroachments (2013 – 2017) -Telangana State



Y
E
A
R

W
I
S
E

Map Showing Forest Vegetation Cover Changes of 2013-2017



Vegetation Cover Changes 2013-2017

Year	Locations	Area Ha
2013-14	651	4560.22
2014-15	362	2482.11
2015-16	602	3570.40
2016-17	1104	5593.88
	2719	16206.61

Legend

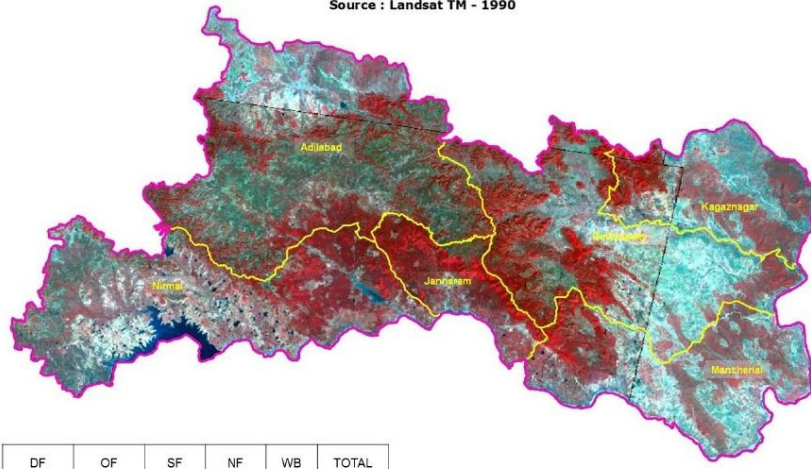
- Vegetation Cover Changes
- YEAR
- 2013-14
- 2014-15
- 2015-16
- 2016-17
- 2018-17
- Forest Area
- State Boundary
- Division Boundary

Vegetation Cover Changes from 2013 to 2017

	2013-2014		2014-2015		2015-2016		2016-2017		Total	
Reason	Loc.	Area_Ha	Loc.	Area_Ha	Loc.	Area_Ha	Loc.	Area_Ha	Loc.	Area_Ha
Advance Operations	84	991.23	51	543.89	99	1668.42	57	737.21	291	3940.75
Development Works	1	0.57			2	2.13	3	6.62	6	9.32
Diversion	25	503.53	6	154.59	35	150.59	44	244.70	110	1053.41
Encroachments	371	1060.31	233	1087.49	381	944.06	782	1705.39	1767	4797.25
Eva Encroachments	32	197.09	11	59.90	7	81.16	4	10.41	54	348.56
Fire Damage			1	1.17			6	7.25	7	8.42
Harvest of Plantations	12	202.11	2	15.84	9	99.59	44	947.31	67	1264.85
Natural Improvement Protection	38	134.05	3	6.62	11	86.63	10	81.03	62	308.33
Rais Pla	79	1446.48	30	529.15	28	493.58	93	1762.20	230	4231.41
ROFR	9	24.85	24	82.95	27	42.27	36	65.39	96	215.46
SMC Works			1	0.52	3	1.97	25	26.37	29	28.86
Total	651	4560.22	362	2482.11	602	3570.40	1104	5593.88	2719	16206.61

Satellite Imagery of ErstWhile Adilabad District - (LISS-III 1990 to 2012)

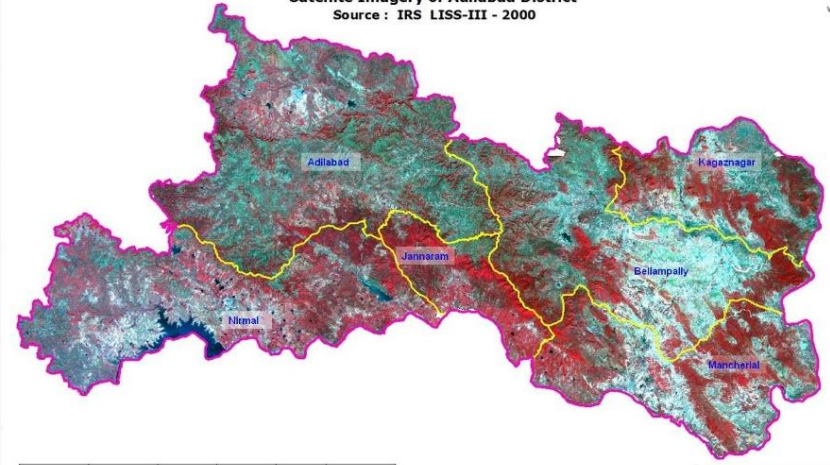
Satellite Imagery of Adilabad District
Source : Landsat TM - 1990



DF	OF	SF	NF	WB	TOTAL
4256.63	1385.41	944.50	496.75	18.01	7101.30

Legend
█ District Boundary
█ Division Boundary

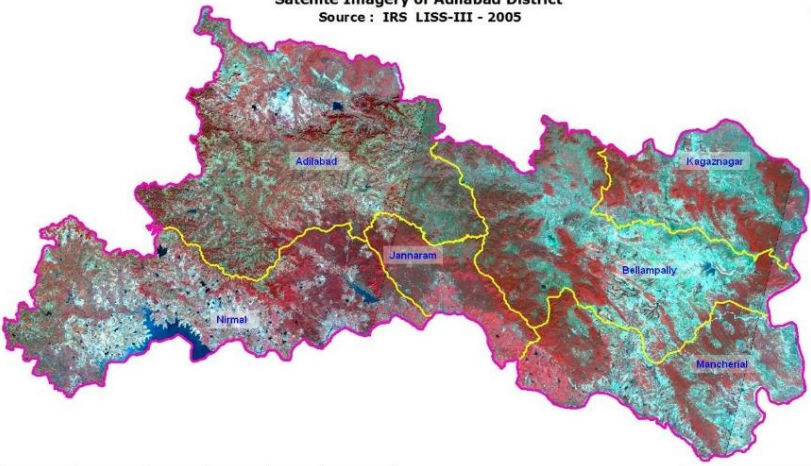
Satellite Imagery of Adilabad District
Source : IRS LISS-III - 2000



DF	OF	SF	NF	WB	TOTAL
4121.00	1534.60	810.84	600.57	34.29	7101.30

Legend
█ District Boundary
█ Division Boundary

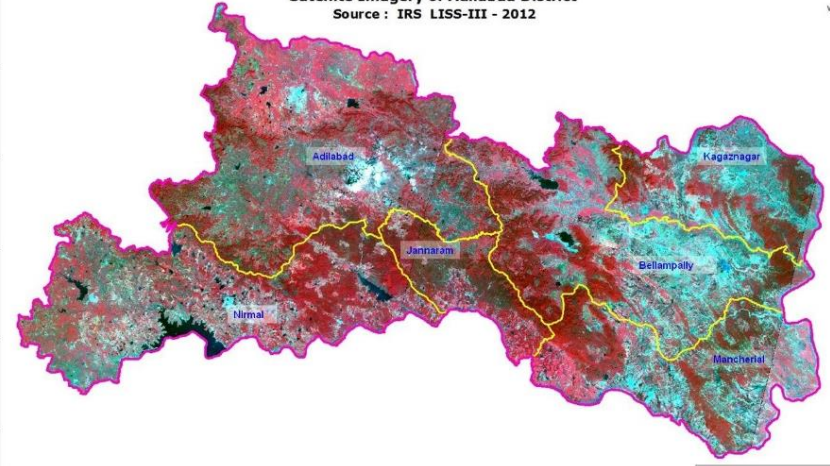
Satellite Imagery of Adilabad District
Source : IRS LISS-III - 2005



DF	OF	SF	NF	WB	TOTAL
4117.89	1553.92	835.73	571.75	22.01	7101.30

Legend
█ District Boundary
█ Division Boundary

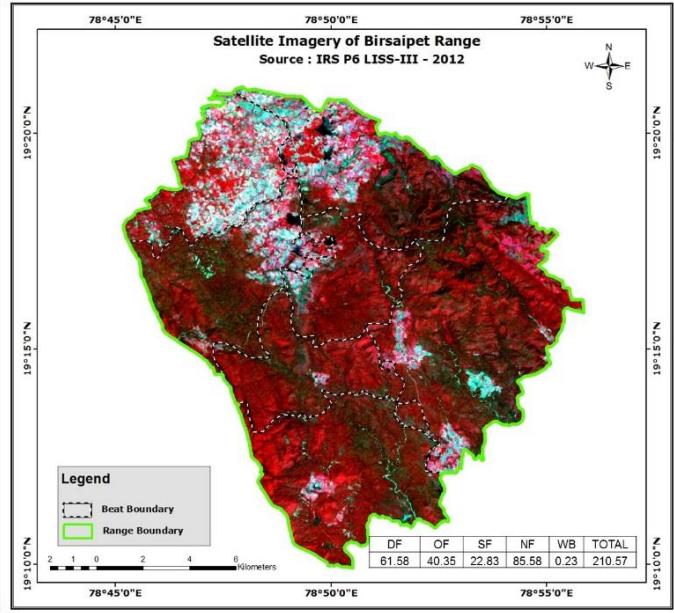
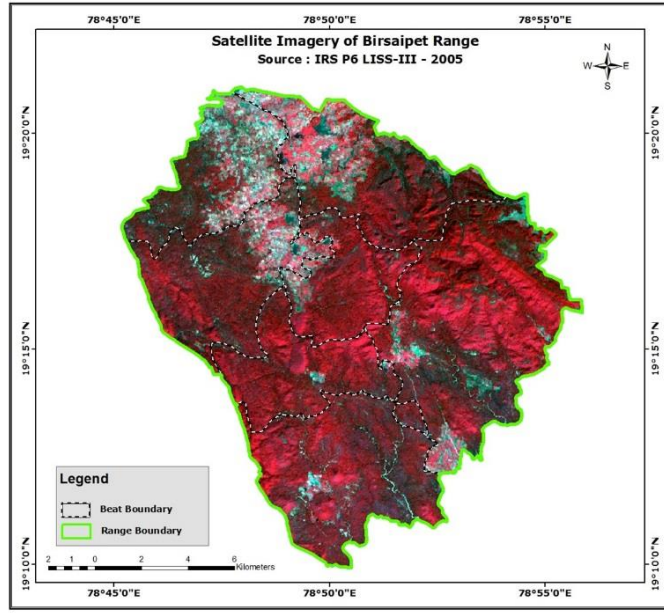
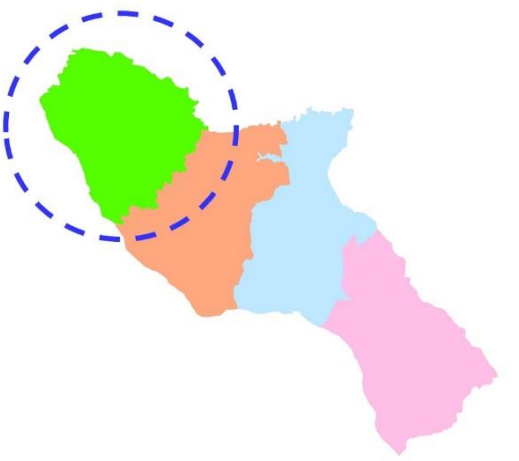
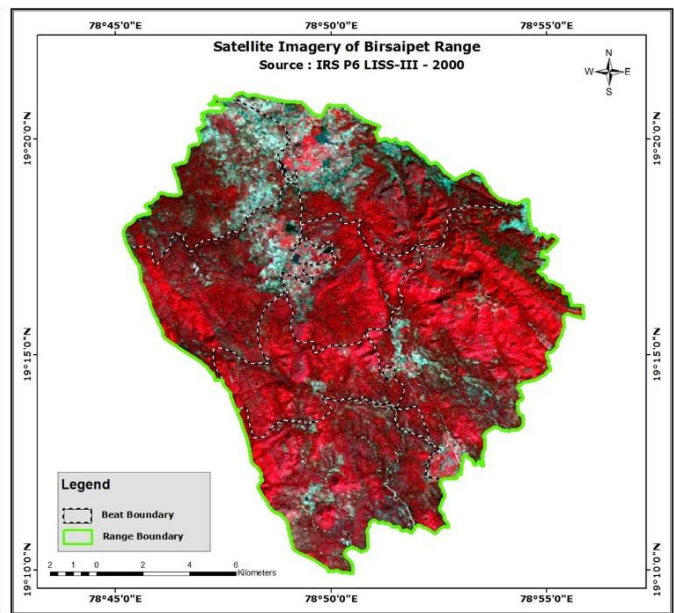
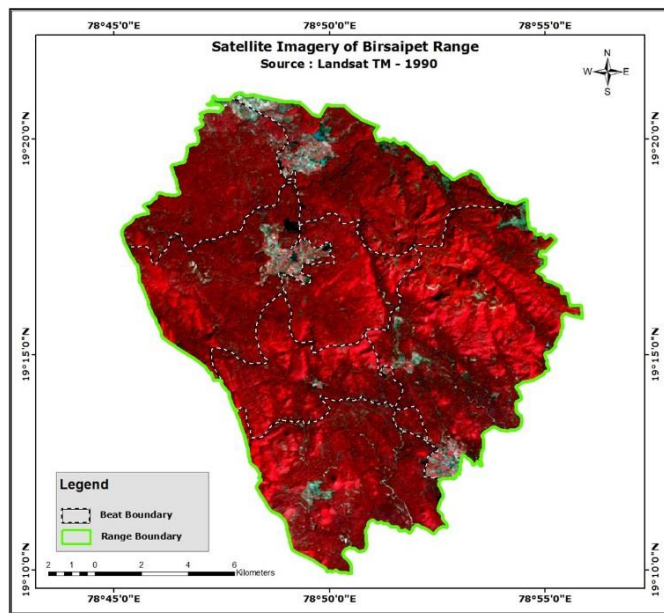
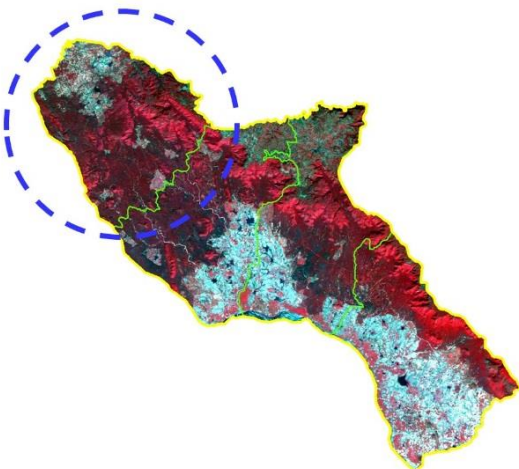
Satellite Imagery of Adilabad District
Source : IRS LISS-III - 2012



DF	OF	SF	NF	WB	TOTAL
4100.35	1443.01	810.28	712.82	34.83	7101.30

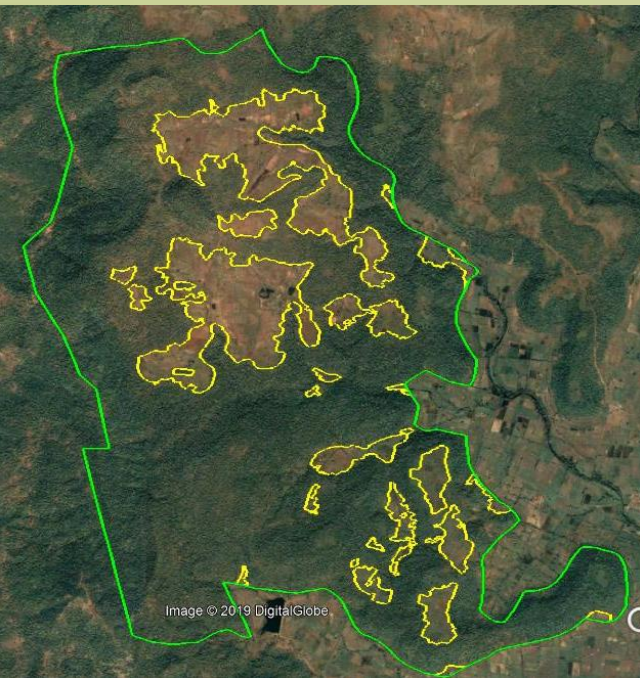
Legend
█ District Boundary
█ Division Boundary

Satellite Imagery of ErstWhile Birsaipet Range – (LISS-III 1990 to 2012)

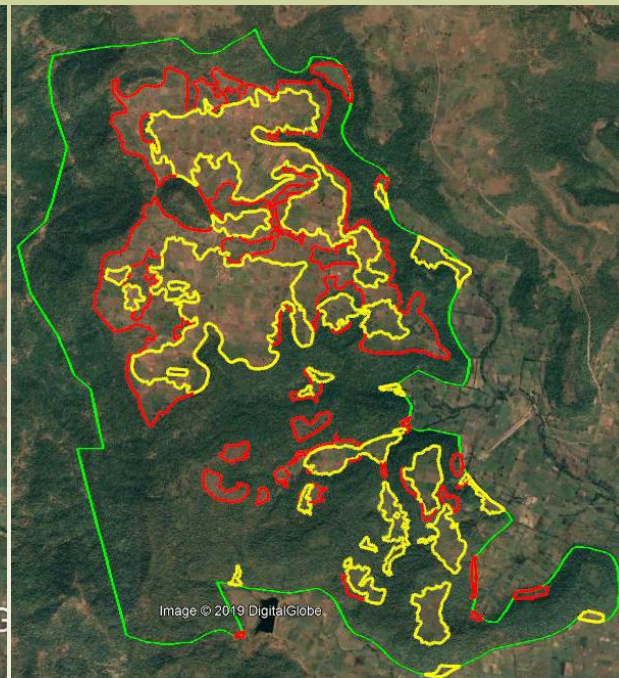


Encroachment Area in Kothaguda Beat of Echoda Division, Adilabad Circle

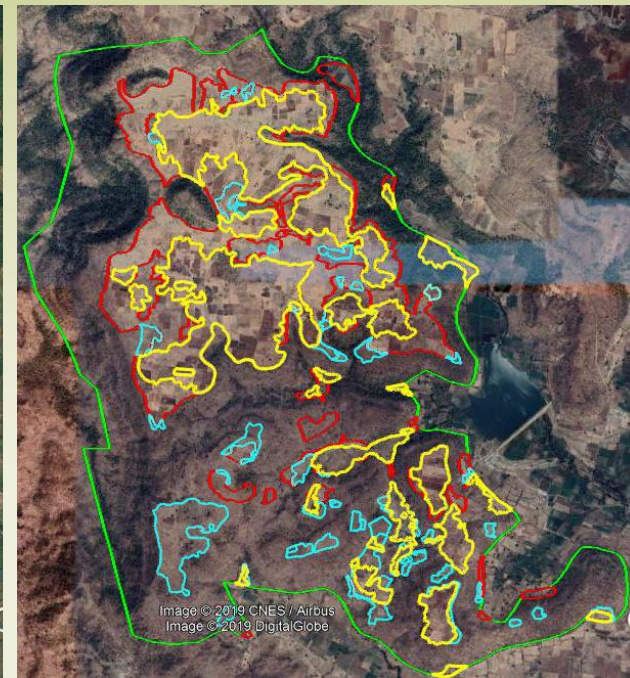
Dop :05-11-2003



Dop : 30-11-2010



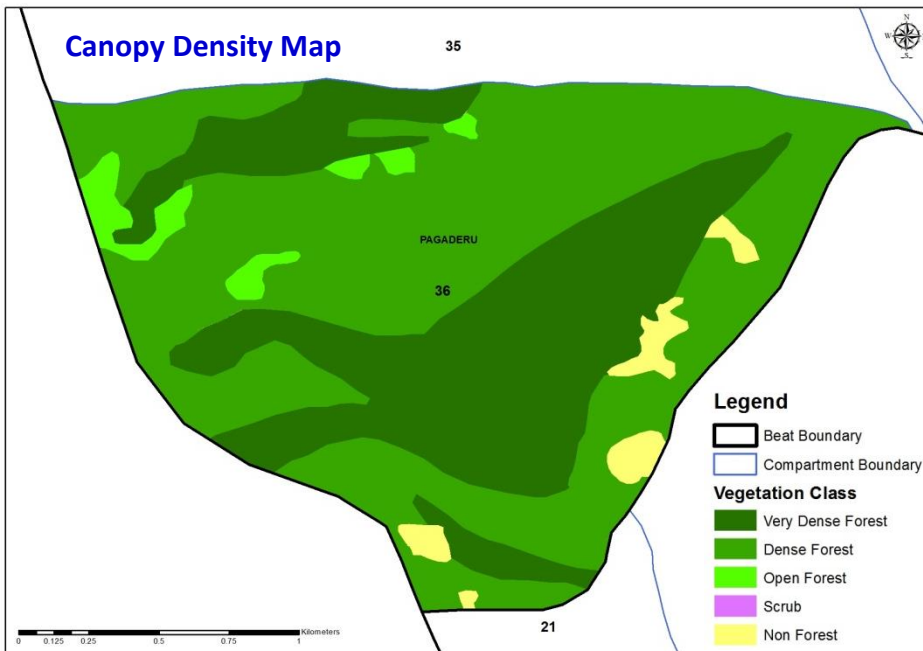
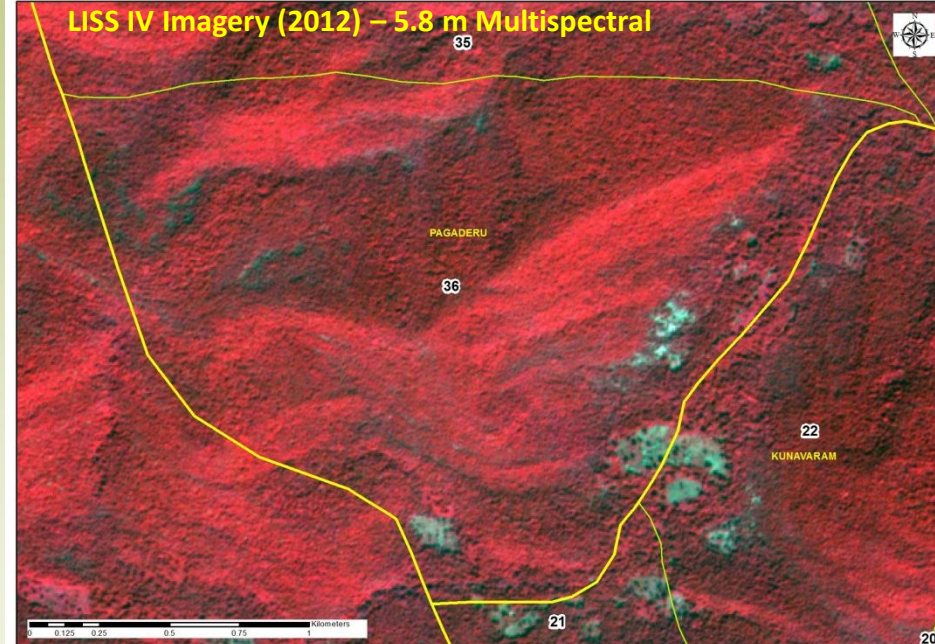
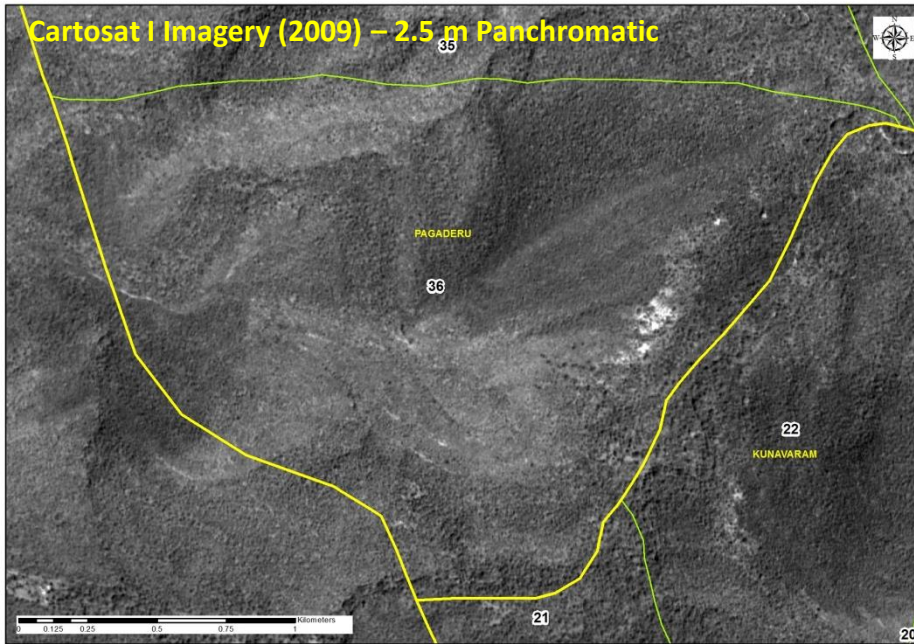
Dop :5-3-2017



Year of Encroachment	Area(Ha)
Upto 2003	264.35
2003-2010	197.89
2010-2017	71.45
Total	533.69

Encroachment Year	
	Upto 2003
	2003-2010
	2010-2017
	Compartment Boundary

Vegetation Canopy Density Statistics at compartment level



Division	Range	Beat	Cmpt.
Paloncha	Bayyaram	Pagaderu	36

Area in Ha

VDF	DF	OF	SF	NF	Total
111.86	219.60	13.71	0.00	12.56	357.73

State of Forests

- **THE GROWING STOCK:**
- The **Growing Stock** of the State in 1970s was estimated to be **177.91 mM³** & the average GS per Ha was **66.13 M³**.
- **Growing Stock**, as estimated in 2007 came to be **118.73 mM³** (Forest Inventory Report 2010) and the average **GS per Ha is 41.13 M³**.
- National average of GS is **58.46 M³ per ha** (Source ISFR,2013) and the World is **131 M³ per ha**.
- There is a decrease of **59.18 mM³** in the GS and **25.00 M³** in the average GS per Ha, in last 3 decades. The average rate of depletion is about **2 mM³** per annum. Which is quite alarming.

State of Forests

- **THE NUMBER OF TREES:**
- Total No. of trees (Stems having girth >30 cm) was assessed to be **55.61 Crore** in 2007.
- Loss of trees accordingly between 1970s and 2007 is about **40 Lakhs** per year (@ 2 trees per M³).
- Reasons for the above depletion are high intensity of biotic interference.
- As per the Forest Inventory Report of 2010, Incidence of Grazing is high in an area of **11.21Lakh Ha** of forest area (38.85%).

MAGNITUDE OF BIOTIC PRESSURE:

- 1. Human Population increased from 1.28 Crore in 1956 to 3.50 in 2011; an increase of 171.83%.**
- 2. Cattle Head population increased from 1.47 Crores in 1956 to 2.70 Crore in 2011; an increase of 83.84 %.**
- 3. Per capita Forest area came down from 0.20 Ha in 1956 to 0.07 Ha in 2011.**

RESULT OF BIOTIC PRESSURE:

- Change in **Crop composition** and distortion in **Age class** distribution. Predominance of young crop and decrease in higher age class (> 70 years).
- Decrease in **number of trees** having commercial value.
- Reduction in **Seed supply** due to illegal hacking of Mother trees, Plus trees, Seed stands, Germplasm Bank etc.
- Absence of **Forest stratification**.

State of Forests

- The heavy intensity of **grazing** has adversely affected the regeneration of forests.
- **Seedling regeneration** is either inadequate or absent altogether in 75% of the forest area.
- This has also led to **Soil erosion**. 61% of the forest area is effected with soil erosion in different degrees.



WHAT NEEDS TO BE DONE:

1. Protection of the Forests against fire, grazing, encroachment and smuggling and poaching.
2. Improvement of the degraded forests by way of tending (assisting natural regeneration), cultural operations and SMC works.
3. Improved management of the Protected Areas to minimize man-animal conflict and improve the habitat of wildlife.

Pre-requisites for restoration of Tree Cover:

1. **Adequacy of the manpower:** Department functioning with 45% of the Sanctioned Strength.

Now, in 2017 permission has been given to fill up all the vacancies including newly sanctioned posts. Process completed.

Right person at the right place: Strict adherence to the Transfer & Posting Policy.

2. **Reduction in Jurisdiction of the field officers:** National Commission on Agriculture had recommended reduction in the area of a Beat to 10 Km². This had been done in most of the States. In Tamil Nadu, it is as low as 7 Km².

3. **Eviction of encroachers:** Stern action against encroachers of Forest Lands & their eviction & consolidation of Boundary Lines. (Recent SCI Order).

4. **Demarcation of FRA Lands:** Right holders lands are not delineated on ground, thus giving scope for further clearance & encroachments.

Pre-requisites for restoration of Tree Cover:

5. **Strengthening of Forest Act:** Certain offences need to be made Cognizable, i.e., non-bailable by amending the Act.
6. **Control of Grazing:** Free grazing is allowed in the entire State of Telangana; this has caused immense damage to the forests, specially by adversely affecting the regeneration. A Grazing Policy with control is needed. Govt. to encourage Stall Feeding.
7. **Control of Forest Fires:** By effectively implementing the forest fires and preventing man made fires.



Pre-requisites for restoration of Tree Cover:

- 8. Involvement of People:** People's involvement is a must for making any programme a success. The Institution of JFMCs has become dysfunctional over the years. This needs to be rejuvenated & re-vitalized. Special incentives in the form of Entrypoint- & Income generation activities need to be provided for protecting forests.
- 9. Budgetary Support:** Budget allocation has been <1% of the State budget so far. This needs to be enhanced to at least 2% of the State Plan Budget.

