"Environment, Forest & Budget"

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#### Paryavaran Mitra's Climate Change Lecture Series

47<sup>th</sup> Lecture
 Environment, Forest & Budget"
 By Mahender Jethmalani
 Pathey Budget Center
 28<sup>th</sup> May, 2011

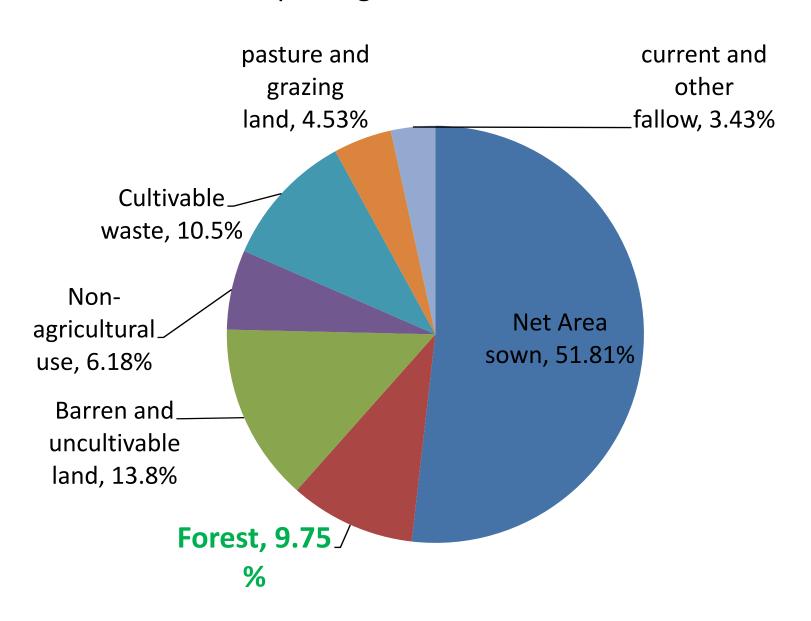
Venue: Yuvak Vikas Trust

#### Forest, Environment and Budgets

By

Mahender Jethmalani Pathey Budget Center

## Land use pattern in Gujarat-2006-07, out of total reporting areas of 188.1 lakh hectares



#### **FORESTS**

#### FORESTS

• In the year 2009-10, the Forests of Gujarat extend over an area of 19160.99 sq. kms. which constitute 9.77 percent of total geographical area of the State. Most of the forests are dry deciduous to scrub type having very low productivity.

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## Wasteland in Gujarat

Total Geographical Area of state	196014 Square Kilometers	
Total wasteland in state	20377.74 square kilometer	
Percentage of wasteland in the state	10.40%	
Source: NRSA, 2003 National Remote sensing Agency		

 Joint Forest Management Committees are in operation covering an area of 3.82 lakh hectare of forest area as tool measure of people's participation in forest conservation and management. At present 25 Forest Development Agencies are in operation.

- Gujarat Forest Department has launched a "Social Forestry Programme" for planting trees on non forest lands and become a pioneer and leading State in social forestry field.
- During the year 2009- 10, total outlay of Rs.5744.20 lakh has been provided and the expenditure of Rs.5736.93 lakh was incurred. During the year 2010-11, an expenditure of Rs.3386.07 lakh has been incurred till November-2010 against the outlay of Rs.6744.90 lakh.

## Departments, which allocate funds for forest and environment

- Dept of Forest and Environment
- Climate Change Department
- Tribal Development Department(Demand-96)
- Tribal Development Dept (Demand -93)
- Special Component Plan for Schedule caste
- Road and Building
- Agriculture and cooperative department

#### Programme of Management and Development of Sanctuaries and National

#### **Park**

 A Programme of Management and Development of Sanctuaries and National Parks was introduced as a new schemes during the 11th five year plan. During the year 2009-10, Rs. 3152.50 lakh was provided and the expenditure of Rs.2972.46 lakh was incurred. Sanctuaries and National Parks are the store houses for Biodiversity conservation. They provide unique habitation to the rare species. • The State has 23 wildlife sanctuaries and 4 National Parks covering about 8.71% of the total geographical area of the State as against the National average of 4 %. The forest department has been created awareness towards the needs of conservation of wildlife by implementing various schemes and soliciting public support.

- Gujarat Forestry Development Project (GFDP) to be funded by the JBIC, Japan was launched in the year 2007-08 and will be completed in 2015. The project cost is Rs. 83027.00 lakh. The project aims at integrated forestry development encompassing of various wings like territorial forestry, wildlife and social forestry in tribal districts.
- The important features **Of** the project are provisions for raising various plantation in an area of 147800 hectare of plantation under various models in forestry and non forestry areas, Wildlife Conservation, Joint Forest Management (JFM), Research and Development and providing infrastructural facilities through Gujarat Forest Development Project (GFDP) funded by JBIC, under externally aided project from 2008-09. During the year 2009-10, total outlay of Rs. 11411.16 lakh were provided and an expenditure of Rs.11124.60 lakh was incurred where as during the year 2010-11, an expenditure of Rs. 5368.75 lakh was incurred till November- 2010 against the outlay of Rs. 16482.02 lakh

#### Wild life

- Gujarat has four national park and
- 22 sanctuaries



#### **National Parks**

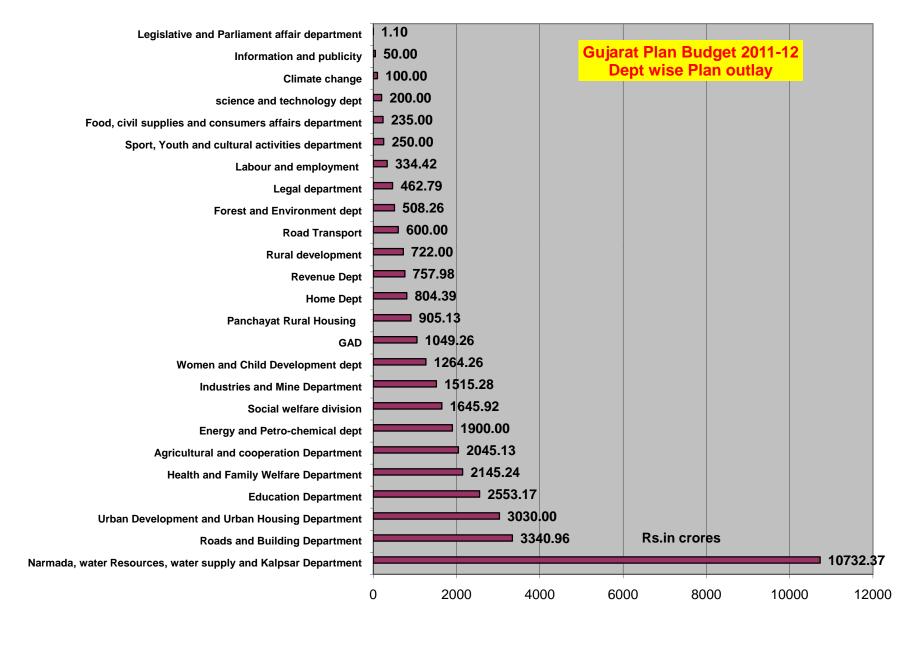
			Area in		
Sr.	Name of Park	Estt.	Sq.Kms.	Location	Major Species
1	Gir National Park	1975	250 71	Sasan Gir	Lion, Leopard, Chital, Chausinga, Hyena, Sambar, Chinkara, Herpetofauna, Crocodiles and birds.
	Oil National Park	1775	230.71	Jasaii Gii	
2	Black National Park	1976	34.08	Velavader	Blackbuck, Wolf, Houbara bustard, Harrieres, Leser florican, Herpetoufaua
3	<u>Vansda National</u> Park	1979	23.99	Vansda	Leopard, Hyena Chital, Chausinga, Birds, Herpetofauna
4	Marine National Park	1982		Gulf of Kachchh	Sponges, Corals, Jelly fish, Sea horse, Octopus, Oyster, Pearl oyster, Starfish, Lobster, Dolphin, Dugon, Waterfowls.
		Total	479.67		

## Budget

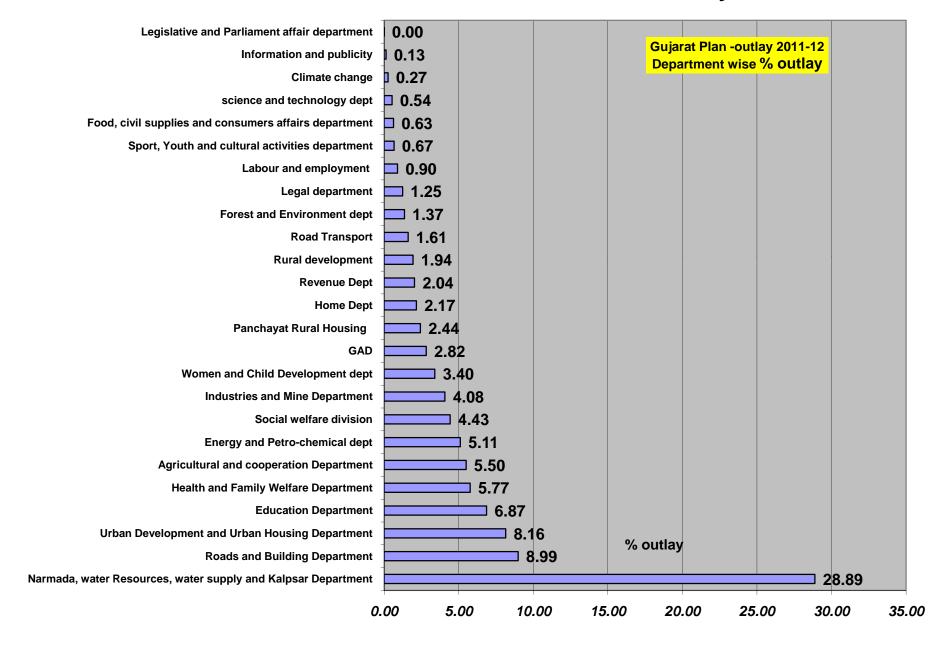
• State's Plan Budget

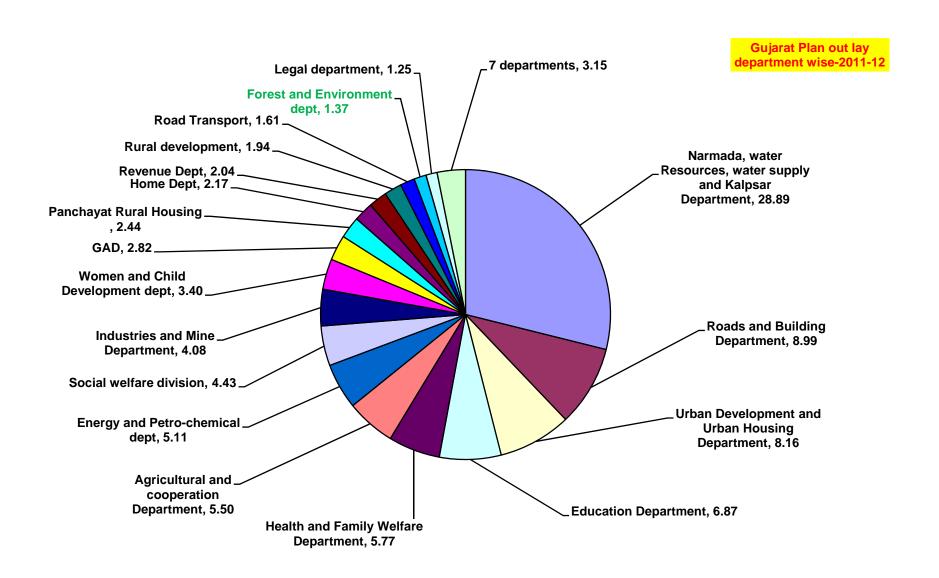
Rank	Department wise Plan outlay for 2011-12	Outlay Rs in Crores	% outlay
1	Narmada, water Resources, water supply and Kalpsar Department	10732.37	28.89
2	Roads and Building Department	3340.96	8.99
3	Urban Development and Urban Housing Department	3030.00	8.16
4	Education Department	2553.17	6.87
5	Health and Family Welfare Department	2145.24	5.77
6	Agricultural and cooperation Department	2045.13	5.50
7	Energy and Petro-chemical dept	1900.00	5.11
8	Social welfare division	1645.92	4.43
9	Industries and Mine Department	1515.28	4.08
10	Women and Child Development dept	1264.26	3.40
11	GAD	1049.26	2.82
12	Panchayat Rural Housing	905.13	2.44
13	Home Dept	804.39	2.17
14	Revenue Dept	757.98	2.04
15	Rural development	722.00	1.94
16	Road Transport	600.00	1.61
17	Forest and Environment dept	508.26	1.37
18	Legal department	462.80	1.25
	7 departments	1170.52	3.15
		37152.67	100.00

#### Gujarat Plan Budget 2011-12 : Dept wise Plan outlay (Rs in crores)



#### Gujarat Plan -outlay 2011-12 :Department wise % Outlay





Budget for Forest and environment

## 2406-forestry and wild life

#### Revenue Expenditure

	Rs in crores.	Rs in crores	Rs in crores
Year	BE	RE	AE
2007-08	159.39	186.32	195.30
2008-09	193.57	203.82	202.40
2009-10	232.81	250.12	252.29
2010-11-RE	268.18	295.91	
2011-12-BE	303.39		

## 4406-Capital outlay on forestry and wildlife capital expenditure

	Rs in crores.	Rs in crores	Rs in crores
Year	ВЕ	RE	AE
2007-08	2007-08 174.57 162.91		155.68
2008-09	2008-09 288.70		261.14
2009-10	287.80	289.43	286.11
2010-11-RE	341.02	340.33	
2011-12-BE	410.27		

### 2810-New Renewable Energy

	Rs in crores.	Rs in crores	Rs in crores	
Year	BE	RE	AE	
2007-08	0.84	0.84	0.76	
2008-09	2.00	2.00	1.65	
2009-10	7.65	2.50	2.50	
2010-11-RE	24.91	9.26	2.30	
2010-11-KE 2011-12-BE	19.01	3.20		

## 3435-Ecology and Environment

	Rs in crores.	Rs in crores	Rs in crores
Year	BE	RE	AE
2007-08	140.83	162.03	166.21
2008-09	167.20	172.15	170.89
2009-10	202.45	214.22	215.86
2010-11-RE	311.96	318.91	
2011-12-BE	348.51		

### 2215-Water supply and sanitation

	Rs in crores.	Rs in crores	Rs in crores
YEAR	BE	RE	AE
2007-08	2.60	2.34	2.19
2008-09	3.90	3.44	3.33
2009-10	2.50	1.95	1.73
2010-11-RE	5.80	5.01	
2011-12-BE	7.85		

# Total expenditure for Forest and Environment/climate

	Rs in crores.	Rs in crores	Rs in crores	
Year	BE	RE	AE	
2007-08	478.22	514.43	520.13	
2008-09	655.36	647.96	639.42	
2009-10	733.21	758.22	758.49	
2010-11-RE	951.87	969.42		
2011-12-BE	1089.02	2.93% out of plan budget of 2011-12		

	Forest and Environment Department's budget	Total Budget of the state		
Year				
2007-08	273.1170	42556.25	0.642%	
2008-09	296.6423	51752.35	0.57%	
2009-10	387.3040	60825.80	0.64%	
2010-11-RE	454.6788	73634.3467	0.62%	
2011-12-BE	501.5765	81279.98	0.62%	

•	District wise Forest coverage in Gujarat	

District	Geographic al area		Mod. Dense forest	Open forest	Total	% of G.A	Change*	Scrub
District	ai ai ea	rorest	lorest	Open forest	Total	70 OI G.A	Change	SCIUD
Ahmedabad	8707	0	15	128	143	1.64	6	17
Amreli	6760	0	63	167	230	3.4	6	36
Anand	3214	0	19	36	55	1.71	-2	4
Bahas Khntha	9858	0	371	473	844	8.56	3	184
Bharuch	6458	0	85	234	319	4.94	3	3
Bhavnagar	11155	0	54	226	280	2.51	1	75
Dahod	4405	1	163	538	702	15.94	-1	35
Gandhinaga r	649	0	6	36	42	6.47	0	2
Jamnagar	14125	0	54	360	414	2.93	22	64
Junagarh	8281	15	952	633	1600	19.32	6	24
Kuchchh	45652	0	312	1999	2311	5.06	7	571
Kheda	3980	0	21	74	95	2.39	1	16
Mehsana	8540	0	19	196	215	2.52	-2	51
Narmada	2580	20	465	474	959	37.17	-11	19
Navsari	2215	18	125	147	290	13.09	-4	6

	Geographi	Dense		Open				
District	cal area	Forest	forest	forest	Total	% of G.A	Change*	Scrub
Panch Mahals	4461	0	176	394	570	12.78	4	35
Patan	3332	0	4	79	83	2.49	-4	24
Porbandar	2326	0	16	104	120	5.16	-2	16
Rajkot	11203	0	4	137	141	1.26	-2	29
Sabnar Knatha	7390	29	305	468	802	1.82	0	90
Surat	7657	84	778	445	1307	17.07	-9	26
Surendran agar	10489	0	8	165	173	1.65	3	92
The Dangs	1762	209	745	414	1368	77.64	-2	3
Vadodara	7794	0	144	479	623	7.99	0	27
Valsad	3029	0	345	589	934	30.84	-7	14
Total	196022	376	5249	8995	14620	7.46	16	1463

• State wise Forest cover in India

1-074	E	 States/UTS	 - ! ^ 7
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	Forest Cover								
State/UT	Geographical Area	Very Dense Forest	Mod, Dense Forest	Open Forest	Total	% of G.A	Change in Forest Cover	Scrub	
Andhra Pradesh	2,75,069	820	24,757	19,525	45,102	16.4	-129	10,372	
Arunachal Pradesh	83,743	20,858	31,556	14,939	67,353	80.43	-119	111	
Assam	78,438	1,461	11,558	14,673	27,692	35.3	-66	179	
Bihar	94,163	231	3,248	3,325	6,804	7.23	-3	134	
Chhattisgarh	1,35,191	4,162	35,038	16,670	55,870	41.33	-59	107	
Delhi	1,483	7	50	120	177	11.94	0	1	
Goa	3,702	511	624	1,016	2,151	58.1	-5	1	
Gujarat	1,96,022	376	5,249	8,995	14,620	7.46	16	1,463	
Haryana	44,212	27	463	1,104	1,594	3.61	-10	145	
Himachal Pradesh	55,673	3,224	6,383	5,061	14,668	26.35	2	327	
Jammu & Kashmir	2,22,236	4,298	8,977	9,411	22,686	10.21	-3	2,036	
Jharkhand	79,714	2,590	9,899	10,405	22,894	28.72	172	683	
Karnataka	1,91,791	1,777	20,181	14,232	36,190	18.87	-10	3,176	
Kerala	38,863	1,443	9,410	6,471	17,324	44.58	40	58	
Madhya Pradesh	3,08,245	6,647	35,007	36,046	77,700	25.21	-39	6,401	
Maharashtra	3,07,713	8,739	20,834	21,077	50,650	16.46	-11	4,157	

		Tab	le2.7.1 Forest (	Cover in States/	UTS in India in	27		
			Fores	t Cover				
State/UT	Geographical Area	Very Dense Forest	Mod, Dense Forest	Open Forest	Total	% of G.A	Change in Forest Cover	Scrub
Maharashtra	3,07,713	8,739	20,834	21,077	50,650	16.46	-11	4,157
Manipur	22,327	701	5,474	11,105	17,280	77.4	328	1
Meghalaya	22,429	410	9,501	7,410	17,321	77.23	116	211
Mozoram	21,081	134	6,251	12,855	19,240	91.27	640	1
Nagaland	16,579	1,274	4,897	7,293	13,464	81.21	-201	2
Orissa	1,55,707	7,073	21,394	20,388	48,855	31.38	100	4,852
Punjab	50,362	-	733	931	1,664	3.3	4	20
Rajasthan	3,42,239	72	4,450	11,514	16,036	4.69	24	4,347
Sikkim	7,096	500	2,161	696	3,357	47.31	0	356
TamilNadu	1,30,058	2,926	10,216	10,196	23,338	17.94	24	1,206
Tripura	10,486	111	4,770	3,192	8,073	76.95	-100	75
Uttar Pradesh	2,40,928	1,626	4,563	8,152	14,341	5.95	-5	745
Uttarakhand	53,483	4,762	14,165	5,568	24,495	45.8	2	271
West Bengal	88,752	2,987	4,644	5,363	12,994	14.64	24	29
Grand Total	32,87,263	83,510	3,19,012	2,88,377	6,90,899	1242.84	728	41,525

Table 2.9.1 Fo	orest Cover in	Tribal Distri	icts in 2007						
		Geographica		Forest	Cover				
State/UT	No. of Tibal Districts	I Area in Tribal Districts	Very Dense Forest	Mod. Dense Forest	Open Forest	Total Forest	% of G.A	Change* in Forest Cover	Scrub
Andhra Pradesh	8	87090	239	16745	8583	25567	29.36	-96	2405
Arunachal Pradesh	13	83743	20858	31556	14939	67353	80343	-119	111
Assam	16	50137	651	4666	6691	12008	23.95	-32	89
Chhatisgarh	9	92656	3611	24573	12026	40210	43.4	-21	79
Gujarat	8	48409	322	2949	3496	6767	13.98	-8	382
Himachal Pradsh	3	26764	950	1068	1213	3231	12.07	0	138
Jharkhand	8	44413	1677	6057	6155	13889	31.27	96	339
Karnataka	5	26597	1248	7642	4249	13139	49.02	1	55
Kerala	9	27228	1073	7026	5010	13109	48.15	53	44
Madhya Pradesh	18	139448	5645	20291	16376	42312	30.34	-48	2100
Maharashtra	11	138272	7277	11397	10835	29509	21.34	-11	2127
Manipur	9	22327	701	5474	11105	17280	77.4	328	1
Meghalaya	7	22429	410	9501	7410	17321	77.23	116	211
Mizoram	8	21081	134	6251	12855	19240	91.27	640	1
Nagaland	8	16579	1274	4897	7293	13464	81.21	-201	2

Table 2.9.1 F 2007	orest Cover i	n Tribal Dis	tricts in						
		Geographica I Area in		Forest	Cover				
State/UT	No. of Tibal Districts	Tribal Districts	Very Dense Forest	Mod. Dense Forest	Open Forest	Total Forest	% of G.A	Change* in Forest Cover	Scrub
Orissa	12	86124	5279	14465	13555	33299	38.66	78	2593
Rajasthan	5	38218	0	2444	3904	6348	16.61	0	940
Sikkim	4	7096	500	2161	696	3357	47.31	0	356
Tamil Nadu	6	30720	695	2396	3636	6727	21.9	-3	417
Tripura	4	10486	111	4770	3192	8073	76.95	-100	75
Uttar Pradesh	1	7680	409	475	436	1320	17.19	-1	1
West Bengal	11	69403	2965	4473	4861	12299	17.72	24	28
Andaman & Nicobar	2	8249	3762	2405	495	6662	80.76	-1	53
Dadra & Nagar Haveli	1	491	0	114	97	211	42.97	-5	1
Daman & Diu	1	72			3		5.56		0
Lakshdwee p	1	32	0	16	10	26	82.75	0	0
Grad Total	188	1105744	59791	193813	159121	412725	81421.37	690	12548

	Change	of Forest Co	ver from 2005	to 2007				
		20	05		2007			
State/UT	Very Dense	Mod. Dense	Open	Total	Very Dense	Mod. Dense	Open	Total
Andhra Pradesh	820	24805	19606	45231	820	24757	19525	45102
Arunachal Pradesh	20859	31632	14981	67472	20858	31556	14939	67353
Assam	1464	11653	14641	27758	1461	11558	14673	27692
Bihar	232	3253	3322	6807	231	3248	3325	6804
Chhattisgarh	4166	35146	16617	55929	4162	35038	16670	55870
Delhi	7	50	120	177	7	50	120	177
Goa	511	626	1019	2156	511	624	1016	2151
Gujarat	376	5319	8909	14604	376	5249	8995	14620
Haryana	26	488	1090	1604	27	463	1104	1594
Himachal Pradesh	3224	6386	5056	14666	3224	6383	5061	14668
Jammu & Kashmir	4298	8977	6414	19689	4298	8977	9411	22686
Jharkhand	2595	9892	10235	22722	2590	9899	10405	22894
Karnataka	1772	20196	14232	36200	1777	20181	14232	36190
Kerala	1443	9404	6437	17284	1443	9410	6471	17324

		20	05		2007			
								_
State/UT	Very Dense	Mod. Dense	Open	Total	Very Dense	Mod. Dense	Open	Total
Madhya Pradesh	6648	35035	36056	77739	6647	35007	36046	77700
Maharashtra	8747	20847	21067	50661	8739	20834	21077	50650
Manipur	689	5522	10741	16952	701	5474	11105	17280
Meghalaya	334	9527	7344	17205	410	9501	7410	17321
Mozoram	134	6384	12082	18600	134	6251	12855	19240
Nagaland	1280	5072	7313	13665	1274	4897	7293	13464
Orissa	7077	21421	20257	48755	7073	21394	20388	48855
Punjab	0	738	922	1660	0	733	931	1664
Rajasthan	72	4454	11486	16012	72	4450	11514	16036
Sikkim	500	2161	696	3357	500	2161	696	3357
TamilNadu	2925	10189	10200	23314	2926	10216	10196	23338
Tripura	113	4816	3244	8173	111	4770	3192	8073
Uttar Pradesh	1626	4569	8151	14346	1626	4563	8152	14341
Uttarakhand	4762	14170	5561	24493	4762	14165	5568	24495
West Bengal	2992	4646	5332	12970	2987	4644	5363	12994
Grand Total INDIA	83472	319948	283751	687171	83510	319012	288377	690899

		Change							
State/UT	Very Dense			Total					
Andhra Pradesh	0	-48	-81	-129					
Arunachal Pradesh	-1	-76	-42	-119					
Assam	-3	-95	32	-66					
Bihar	-1	-5	3	-3					
Chhattisgarh	-4	-108	53	-59					
Delhi	0	0	0	0					
Goa	0	-2	-3	-5					
Gujarat	0	-70	86	16					
Haryana	1	-25	14	-10					
Himachal Pradesh	0	-3	5	2					
Jammu & Kashmir	0	0	2997	2997					
Jharkhand	-5	7	170	172					
Karnataka	5	-15	0	-10					
Kerala	0	6	34	40					

		Cha	nge	
State/UT	Very Dense	Mod. Dense	Open	Total
Madhya Pradesh	-1	-28	-10	-39
Maharashtra	-8	-13	10	-11
Manipur	12	-48	364	328
Meghalaya	76	-26	66	116
Mozoram	0	-133	773	640
Nagaland	-6	-175	-20	-201
Orissa	-4	-27	131	100
Punjab	0	-5	9	4
Rajasthan	0	-4	28	24
TamilNadu	1	27	-4	24
Tripura	-2	-46	-52	-100
Uttar Pradesh	0	-6	1	-5
Uttarakhand	0	-5	7	2
West Bengal	-5	-2	31	24
Grand Total	38	-936	4626	3728

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