

Change in 2009 has launched the Indian Network for Climate Change Assessment (INCCA), which has been conceptualized as a network-based scientific programme designed to assess the drivers and implications of climate change through scientific research, prepare climate change assessments once every two years, develop decision support systems and build capacity towards management of climate change related risks and opportunities.

Steps taken to protect 48 species of bumblebees

1936. SHRI MOHD. ALI KHAN : Will the Minister of ENVIRONMENT, FOREST AND CLIMATE CHANGE be pleased to state:

- (a) whether India is home to 48 species of bumblebees; and
- (b) if so, the details thereof and the steps being taken to protect such species?

THE MINISTER OF STATE OF THE MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE (SHRI PRAKASH JAVADEKAR): (a) Yes, India is home to large number of species of bumble bees. As per the studies conducted by Zoological Survey of India and other organisations, the bumble bees in India are largely restricted to the Himalayan region. According to a recent publication "*Indian Bumble Bees*" by Dr. Malkiat S. Saini et al. of Punjabi University, Patiala, 48 species of bumble bees are reported from Indian region of Himalaya.

(b) Bumble Bees are important pollinators of several medicinal, endangered, endemic, threatened and agriculturally important plants of Himalayan ecosystem. They are not included under any schedules of Wildlife (Protection) Act, 1972. However, the habitat of bumble bees are protected through a network of wildlife sanctuaries, national parks, biosphere reserves and community conserved areas.

Steps taken to increase forest area

1937. SHRI B. K. HARIPRASAD:
SHRI D. P. TRIPATHI:

Will the Minister of ENVIRONMENT, FOREST AND CLIMATE CHANGE be pleased to state:

- (a) whether it is a fact that forest area is decreasing gradually and density of population with respect to land area is increasing in Maharashtra, Karnataka, Chhattisgarh, Odisha and drastic changes in Jharkhand;
- (b) if so, the details thereof and reasons therefor, State/UT-wise; and

(c) the steps taken/being taken by the Government to improve its condition and the target for the next three years?

THE MINISTER OF STATE OF THE MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE (SHRI PRAKASH JAVADEKAR): (a) and (b) As per India State of Forest Report-2013, the total forest cover in the country is 697,898 square kilometers which is 21.23% of the total geographical area of the country. There is a net increase of 5871 square kilometers in the forest cover of the country as compared with India State of Forest Report-2011. The detailed list showing increase/decrease in forest cover State/UTs wise is given in Statement-I (*See below*). The reason for increase and decrease in the forest cover are given in Statement-II and III respectively (*See below*). It is also a fact that the density of population has increased in the State of Maharashtra, Karnataka, Chhattisgarh, Odisha and Jharkhand. The population density for 2001 and 2011 as per Census in these States is given in Statement-IV (*See below*).

(c) In order to increase the forest and tree cover and improve the quality of existing forest, afforestation in the country is taken up under various Centrally Sponsored Schemes such as National Afforestation Programme (NAP), Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS), Integrated Watershed Management Programme (IWMP), National Bamboo Mission (NBM) and under Compensatory Afforestation Fund Management and Planning Authority (CAMPA), 13th Finance Commission Grant, different State Plan/Non-Plan Schemes including externally aided projects. National Afforestation Programme (NAP) of the Ministry of Environment and Forests is a 100% Centrally Sponsored Scheme for Afforestation and tree plantation and eco-restoration of degraded forests and adjoining areas in the country. The Scheme is being implemented through a decentralized mechanism of State Forest Development Agency (SFDA) at State level, Forest Development Agency (FDA) at Forest Division level and Joint Forest Management Committees (JFMCs) at Village levels. The State-wise details of fund released and approved area under National Afforestation Programme during last three years are given in Statement-V and VI respectively (*See below*).

The Ministry has also released to the tune of ₹ 4994.55 lakhs and ₹ 1265.50 lakhs to the States in the financial year 2012-13 and 2013-14 for preparatory activities for implementation of Green India Mission. The activities undertaken by the State Governments under preparatory phase include institutional strengthening, training, identification of landscapes and preparation of Perspective Plan for implementation of Green India Mission. The Year-wise and State-wise details of allocation of funds are given in Statement-VII (*See below*).

National Afforestation Programme is the flagship scheme under the Ministry of Environment, Forest and Climate Change which being a demand driven scheme, the target are not fixed and afforestation area is sanctioned based on the proposals received from the State Forest Development agencies on the basis of past performance, potential degraded forest land available for ecorestoration and availability of budget under the scheme.

Statement-I

*Change in Forest Cover in States/UTs as per
India State of Forest Report (ISFR)- 2013*

(area in square kilometres)

States/UTs	Geographical Area	Total Forest Cover 2013	Total Forest Cover 2011	Change in Forest Cover
1	2	3	4	5
Andhra Pradesh	275069	46116	46389	-273
Arunachal Pradesh	83743	67321	67410	-89
Assam	78438	27671	27673	-2
Bihar	94163	7291	6845	446
Chhattisgarh	135191	55621	55674	-53
Delhi	1483	179.81	176.2	3.61
Goa	3702	2219	2219	0
Gujarat	196022	14653	14619	34
Haryana	44212	1586	1608	-22
Himachal Pradesh	55673	14683	14679	4
Jammu and Kashmir	222236	22538	22539	-1
Jharkhand	79714	23473	22977	496
Karnataka	191791	36132	36194	-62
Kerala	38863	17922	17300	622
Madhya Pradesh	308245	77522	77700	-178
Maharashtra	307713	50632	50646	-14
Manipur	22327	16990	17090	-100
Meghalaya	22429	17288	17275	13
Mizoram	21081	19054	19117	-63
Nagaland	16579	13044	13318	-274
Odisha	155707	50347	48903	1444

1	2	3	4	5
Punjab	50362	1772	1764	8
Rajasthan	342239	16086	16087	-1
Sikkim	7096	3358	3359	-1
Tamil Nadu	130058	23844	23625	219
Tripura	10486	7866	7977	-111
Uttar Pradesh	240928	14349	14338	11
Uttarakhand	53483	24508	24496	12
West Bengal	88752	16805	12995	3810
Andaman and Nicobar Islands	8249	6711	6724	-13
Chandigarh	114	17.26	17	0.26
Dadra and Nagar Haveli	491	213	211	2
Daman and Diu	112	9.27	6.15	3.12
Lakshadweep	32	27.06	27.06	0
Puducherry	480	50.06	50.06	0
GRAND TOTAL	3287263	697898	692027	5871

Statement-II*States showing gain in forest cover and reasons for gain.*

Sl. No.	States/UTs	Change (km ²)	Reasons for gain
1.	West Bengal	3,810	Coppice growth and afforestation inside Reserve Forest Areas (RFA); plantations outside forests etc.
2.	Odisha	1,444	Conservation initiatives by SFD and through VSS
3.	Kerala	622	Conservation and afforestation activities.
4.	Jharkhand	496	Plantation and reclamation of mining area
5.	Bihar	446	Afforestation activities within and outside forests
6.	Tamil Nadu	219	Protection and conservation efforts of SFD

Sl. No.	States/UTs	Change (km ²)	Reasons for gain
7.	Gujarat	34	Conservation and afforestation within and outside forest
8.	Meghalaya	13	Conservation leading to regeneration and afforestation activities
9.	Uttarakhand	12	Conservation and afforestation activities
10.	Uttar Pradesh	11	Plantation and conservation activities.
11.	Others	21	Plantation and conservation activities

Statement-III*States showing loss in forest cover and reasons for loss*

Sl. No.	States/UTs	Change (km ²)	Reasons for loss
1.	Nagaland	-274	Biotic pressure, shortening of shifting cultivation cycle.
2.	Andhra Pradesh	-273	Rotational felling mainly of fast growing species, open cast mining, encroachments
3.	Madhya Pradesh	-178	Submerge of area, mining, encroachments
4.	Tripura	-111	Shifting cultivation practices.
5.	Manipur	-100	Shifting cultivation practices.
6.	Arunachal Pradesh	-89	Shifting cultivation practices.
7.	Mizoram	-63	Shifting cultivation practices.
8.	Karnataka	-62	Rotational felling
9.	Chhattisgarh	-53	Developmental activities, mining, encroachments
10.	Haryana	-22	Developmental activities, Rotational felling

Sl. No.	States/UTs	Change (km ²)	Reasons for loss
11.	Maharashtra	-14	Encroachments etc.
12.	Andaman and Nicobar Islands	-13	Drying up of mangroves after Tsunami
13.	Others	-5	
TOTAL		-1,257	

Statement-IV*Density of population per square kilometre for 2001-2011 Census*

Sl. No.	Name of the State	Density of Population 2001	Density of Population 2011
1.	Chhattisgarh	154	189
2.	Jharkhand	338	414
3.	Karnataka	276	319
4.	Maharashtra	315	365
5.	Odisha	236	270

Statement-V*Details of funds released during last three years (2012-13 to 2014-15)
under National Afforestation Programme Scheme*

		(₹ in crore)		
Sl. No.	States	2012-13	2013-14	2014-15
1.	Andhra Pradesh	2.71	3.75	4.56
2.	Bihar	3.40	12.84	7.00
3.	Chhattisgarh	13.33	21.38	20.00
4.	Goa	0.00	0.00	0.00
5.	Gujarat	14.30	11.68	10.50
6.	Haryana	6.41	17.94	11.00

Sl. No.	States	2012-13	2013-14	2014-15
7.	Himachal Pradesh	3.62	2.61	0.73
8.	Jammu and Kashmir	3.37	8.11	3.59
9.	Jharkhand	4.69	9.02	8.60
10.	Karnataka	6.81	9.26	21.35
11.	Kerala	11.30	6.99	2.82
12.	Madhya Pradesh	9.15	22.10	21.00
13.	Maharashtra	28.87	32.33	35.00
14.	Odisha	3.38	5.36	17.92
15.	Punjab	0.76	2.00	1.87
16.	Rajasthan	4.14	2.81	3.35
17.	Tamil Nadu	2.78	3.21	4.25
18.	Telangana	0.00	0.00	2.03
19.	Uttar Pradesh	15.27	20.15	12.00
20.	Uttarakhand	6.25	6.01	2.50
21.	West Bengal	2.57	2.96	0.78
TOTAL (OTHER STATES)		143.11	200.49	190.85
22.	Arunachal Pradesh	1.66	0.00	0.15
23.	Assam	1.47	2.99	0.00
24.	Manipur	9.46	12.12	8.00
25.	Meghalaya	9.10	4.50	3.61
26.	Mizoram	8.78	11.94	15.00
27.	Nagaland	10.88	9.82	11.00
28.	Sikkim	5.42	3.77	6.00
29.	Tripura	3.50	11.99	9.17
TOTAL (NE STATES)		50.26	57.13	52.93
GRANT TOTAL		193.37	257.62	243.78

Statement-VI

*Details of approved advance work area from 2012-13 to 2014-15 under
National Afforestation Programme Scheme*

(area in hectares)

Sl. No.	State	Year		
		2012-13	2013-14	2014-15
1	2	3	4	5
1.	Andhra Pradesh	0	1605	810
2.	Bihar	2415	3885	1786
3.	Chhattisgarh	2934	5906	4699
4.	Goa	0	0	0
5.	Gujarat	2000	2735	5284
6.	Haryana	1519	3035	1900
7.	Himachal Pradesh	1450	908	2237
8.	Jammu and Kashmir	4486	2260	1606
9.	Jharkhand	0	3975	3924
10.	Karnataka	1880	3070	2900
11.	Kerala	1000	1620	1478
12.	Madhya Pradesh	5125	5110	4786
13.	Maharashtra	2900	6850	6647
14.	Odisha	1975	4910	6535
15.	Punjab	0	1347	1628
16.	Rajasthan	1250	2325	2550
17.	Tamil Nadu	1800	2094	750
18.	Telangana	0	0	795

1	2	3	4	5
19.	Uttar Pradesh	4270	4890	8548
20.	Uttarakhand	2350	1241	1330
21.	West Bengal	710	970	2495
	TOTAL (OTHER STATES)	38064	58736	62688
22.	Arunachal Pradesh	0	0	1000
23.	Assam	0	3675	0
24.	Manipur	3970	2530	1835
25.	Meghalaya	3000	3000	0
26.	Mizoram	2500	3000	3135
27.	Nagaland	2910	4000	2130
27.	Sikkim	650	1095	1851
28.	Tripura	4435	4547	1796
	TOTAL (NE STATES)	17465	21847	11747
	TOTAL	55529	80583	74435

Statement-VII

*Details of funds released to the State Governments
for preparatory activities under Green India Mission*

(₹ in lakhs)

Sl. No.	State	Financial Year		
		2011-12	2012-13	2013-14
1	2	3	4	5
1.	Andhra Pradesh	89.53	-	0
2.	Arunachal Pradesh	0	-	127.00
3.	Assam	130.00	-	0

1	2	3	4	5
4.	Bihar	0	-	224.85
5.	Chhattisgarh	972.00	-	0
6.	Gujarat	133.80	-	0
7.	Haryana	357.00	-	0
8.	Himachal Pradesh	126.50	-	0
9.	Jammu and Kashmir	64.00	-	0
10.	Jharkhand	147.00	-	0
11.	Karnataka	267.45	-	0
12.	Kerala	194.60	-	0
13.	Madhya Pradesh	823.50	-	0
14.	Maharashtra	405.77	-	0
15.	Manipur	40.50	-	0
16.	Meghalaya	0	-	89.70
17.	Mizoram	0	-	223.65
18.	Nagaland	141.50	-	0
19.	Odisha	107.50	-	0
20.	Punjab	125.50	-	0
21.	Rajasthan	275.25	-	0
22.	Sikkim	0	-	299.55
23.	Tamil Nadu	72.15	-	0
24.	Tripura	350.50	-	0
25.	Uttar Pradesh	119.50	-	0
26.	Uttarakhand	51.00	-	0
27.	West Bengal	0	-	300.75
TOTAL		4994.55	-	1265.50