

GOVERNMENT OF INDIA
MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE

LOK SABHA
STARRED QUESTION NO: 104*
TO BE ANSWERED ON: 25.07.2022

Forest Cover

*104. SHRI RATTAN LAL KATARIA:
SHRI BHOLANATH (B.P. SAROJ):

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

- (a) whether forest cover in the country has increased by 2261 square km and the forest cover of 1643 square km has got destroyed during the year 2019 and if so, the details thereof;
- (b) the details of the increase required in forests or forest area to get recognition under Nationally Determined Contributions;
- (c) the details of the areas where trees were cut down on a large scale including deforested areas during the last three years along with the reasons therefor;
- (d) the steps taken to prevent deforestation across the country in the future and the progress of the implementation of afforestation schemes along with the funds released for the purpose during the last three years; and
- (e) whether the Government is also taking any concrete steps to increase natural rice fields keeping in view climate change and if so, the details thereof?

ANSWER

MINISTER FOR ENVIRONMENT, FOREST AND CLIMATE CHANGE
(SHRI BHUPENDER YADAV)

- (a) to (e) The statement is laid on the table of the House.

Statement refer to in reply to part (a) to (e) of Lok Sabha Starred Question No. 104 due for reply on 25.07.2022 regarding 'Forest Cover' by Shri Rattan Lal Kataria and Shri Bholanath (B.P. Saroj):

- (a) Forest Survey of India (FSI), Dehradun, an organization under the Ministry carries out the assessment of forest cover of the country biennially since 1987 and the findings are published in India State of Forest Report (ISFR). The forest cover assessment is a wall-to-wall mapping exercise based on remote sensing supported by intensive ground verification and field data from National Forest Inventory. As per latest ISFR 2021, the total forest cover of the country has increased by 1540 square kilometre, tree cover has increased by 721 square kilometre and total forest and tree cover has increased by 2261 square kilometre at the national level as compared to the previous assessment i.e. ISFR 2019. There has been increase in forest cover in some States while there has been decrease in forest cover in some States as per ISFR 2021.

The gain in Forest cover or improvement in forest canopy density may be attributed to conservation measures, afforestation activities, enhanced protection measures in plantation as well as in traditional forest areas and expansion of trees outside forest whereas, loss in forest cover may be attributed due to developmental activities, harvesting of short rotational plantations and biotic pressure. The details of State and Union Territory wise forest cover, forest and tree cover and change in forest and tree cover are given at **Annexure I**. The details of States showing decline in forest cover in comparison to previous assessment (ISFR-2019) are given at **Annexure II**.

- (b) India is committed to create an additional carbon sink of 2.5 to 3 billion tonnes of CO₂ equivalent through additional forest and tree cover by 2030 as per Nationally Determined Contribution (NDC) under Paris Agreement. India is on track to meet Nationally Determined Contributions (NDC) targets under Paris Agreement. The Forest Survey of India estimates carbon stock of forest by using National Forest Inventory data collected during forest inventory and forest cover area following the guidelines given by United Nation Framework Convention on Climate Change (UNFCCC). The carbon stock for 2021 has been estimated to be 7204 million tonnes which is 79.4 million tonnes more than the assessment of 2019. Thus annual increase is 39.7 million tonnes, which is 145.6 million tonnes CO₂ equivalent.

In totality, India has already achieved 1.97 billion tonnes of additional carbon sink as compared to the base year of 2005.

The remaining target can be achieved by increasing forest and tree cover of the country through implementation of various Central and State sponsored schemes.

- (c) The Central Government accords prior approval for non-forestry use of the forest land under the provisions laid down in the Forest (Conservation) Act, 1980. Forest land is

diverted only for unavoidable site specific developmental projects. All such proposals for use of forest land for non-forestry use are processed as per the provision of the Forest (Conservation) Act, 1980, Rules, and Guidelines frame thereunder. During last three years (2019-20 to 2021-22) a total 52932.06 ha of forest land have been diverted. The State/UT wise details of area diverted are given at **Annexure III**.

- (d) Deforestation is caused due to various factors which may include overexploitation, overgrazing, urbanization and diversion for other purposes etc. The Biennial edition of India State of Forest Report (ISFR) by Forest Survey of India (FSI) of the ministry, comprehensively, brings out the district-wise and state-wise details of forest and tree cover along with type of forest including open forest etc. This repository of data *interalia* serves as the source to target the potential area for afforestation under various schemes.

Compensatory afforestation is carried out in lieu of forest land diversion. Moreover, to compensate the problem of deforestation and to improve and increase the forest & tree cover in the country, afforestation programmes are taken up under various Centrally Sponsored Schemes of the Ministry such as National Mission for a Green India (GIM). GIM is one of the eight Missions outlined under the National Action Plan on Climate Change. It aims at protecting, restoring and enhancing India's forest cover and responding to Climate Change by undertaking plantation activities in the forest and non-forest areas. GIM activities were started in the FY 2015-16. So, far a sum of Rs. 375.13 Crores have been released to fifteen States and one union territory during last three years for taking up the advance work regarding creation of plantation over an area of 98260 hectares.

The Ministry is implementing Nagar Van Yojana (NVY) since the year 2020 which envisages developing 400 Nagar Vans and 200 Nagar Vatika in the country during the period of 2020-21 to 2024-25 with an objective to significantly enhance the tree outside forests and green cover, enhancement of biodiversity and ecological benefits to the urban and peri-urban areas apart from improving quality of life of city dwellers with the funds under the National Fund of the Compensatory Afforestation Fund Management and Planning Authority (CAMPA). During the year 2020-21 an amount of Rs. 1553.65 lakhs has been released and during 2021-22 an amount of Rs. 10875.44 lakh has been released. A total amount of Rs. 12429.09 Lakhs has been released for the creation of 173 Nagar Van projects in 26 States of the country till date. The Ministry is also implementing 'School Nursery Yojana' (SNY) since the year 2020 for a period of five years where students of class Sixth, Seventh and Eighth from all public and private schools organized by State Boards/ Central Government Boards all over the country will be actively involved in developing nursery, raising and planting seedlings as part of school curriculum. During the year 2020-21 an amount of Rs. 15.20 lakh has been released and during 2021-22 an amount of Rs. 180.39 lakhs has been released. A total amount of Rs. 195.15 lakhs have been released for the creation School Nurseries across 313 schools in 7 States of the country till date.

Afforestation activities are also taken up under various programmes/funding sources such as Mahatma Gandhi National Rural Employment Guarantee Scheme, Compensatory Afforestation Funds under Compensatory Afforestation Fund Management and Planning Authority (CAMPA). Afforestation activities are also taken up under various schemes of State Government /UT Administration. In addition, plantations are also done by various departments, Non-Government Organizations, Civil Society, Corporate bodies etc.

The multi departmental efforts have yielded good results in conserving environment by addressing the problem of deforestation, besides keeping the pace of development, which is evident from the fact that the forest cover has stabilized and has been constantly increasing over the years. As per the latest ISFR 2021, the total forest cover of the country has increased by 12,294 square kilometres in the last seven years (ISFR 2015 to ISFR 2021).

- (e) National Mission for Sustainable Agriculture (NMSA) is one of the Missions within the National Action Plan on Climate Change (NAPCC) under Hon'ble Prime Minister's Council for Climate Change. The mission aims to evolve and implement strategies to make Indian agriculture more resilient to the changing climate. NMSA was approved for three major components i.e. Rainfed Area Development (RAD); On Farm Water Management (OFWM); and Soil Health Management (SHM). Subsequently, four new programmes were introduced namely Soil Health Card (SHC), Paramparagat Krishi VikasYojana (PKVY), Mission Organic Value Chain Development in North Eastern Region (MOVCDNER) and Sub Mission on Agroforestry (SMAF). During 2015-16, Pradhan Mantri Krishi Sinchayee Yojana (PMKSY) was operationalised wherein the OFWM component of NMSA was subsumed under Per Drop More Crop (PDMC) component of PMKSY. In addition to the aforementioned programmes under NMSA, Restructured National Bamboo Mission (NBM) was launched in April 2018. Beneficiaries of these schemes are decided/selected by the respective State Governments.

Annexure-I

Annexure referred to in reply to part (a) of the Lok Sabha Starred Question No. 104 due for answer on 25.07.2022 regarding 'Forest Cover'

State and Union Territory wise details of forest cover, total forest and tree cover and change in forest and tree cover as per ISFR 2021

(Area in square kilometre)

S. No.	State/UTs	Geographical Area (GA)	Total Forest Cover	Total Forest and Tree Cover	Change in forest and tree cover w.r.t ISFR 2019
1	Andhra Pradesh	1,62,968	29,784	34,463	1,412
2	Arunachal Pradesh	83,743	66,431	67,432	-104
3	Assam	78,438	28,312	29,942	207
4	Bihar	94,163	7,381	9,722	413
5	Chhattisgarh	1,35,192	55,717	61,072	1,213
6	Delhi	1,483	195.00	342	18
7	Goa	3,702	2,244	2,488	-21
8	Gujarat	1,96,244	14,926	20,415	-1,354
9	Haryana	44,212	1,603	3,028	-139
10	Himachal Pradesh	55,673	15,443	16,118	-145
11	Jharkhand	79,716	23,721	26,588	320
12	Karnataka	1,91,791	38,730	46,224	1,392
13	Kerala	38,852	21,253	24,073	-7
14	Madhya Pradesh	3,08,252	77,493	85,547	-274
15	Maharashtra	3,07,713	50,798	62,906	1,322
16	Manipur	22,327	16,598	16,767	-253
17	Meghalaya	22,429	17,046	17,744	-85
18	Mizoram	21,081	17,820	18,264	-183
19	Nagaland	16,579	12,251	12,616	-232
20	Odisha	1,55,707	52,156	57,160	893
21	Punjab	50,362	1,847	2,985	-456
22	Rajasthan	3,42,239	16,655	25,388	646
23	Sikkim	7,096	3,341	3,380	2
24	Tamil Nadu	1,30,060	26,419	30,843	-351
25	Telangana	1,12,077	21,214	24,062	966
26	Tripura	10,486	7,722	7,950	-7
27	Uttar Pradesh	2,40,928	14,818	22,239	91
28	Uttarakhand	53,483	24,305	25,306	162
29	West Bengal	88,752	16,832	19,181	273
30	A & N Islands	8,249	6,744	6,767	-17
31	Chandigarh	114	22.88	37.88	-9
32	Dadra & Nagar Haveli and Daman & Diu	602	227.75	259.75	0
33	Jammu & Kashmir	2,22,236		24,898	-4,168
34	Ladakh			24,898	3,226
35	Lakshadweep	30	27.10	27.15	-0
36	Puducherry	490	53.30	76.30	1
Total		32,87,469	7,13,789	8,09,537	2261

Annexure referred to in reply to part (a) of the Lok Sabha Starred Question No. 104 due for answer on 25.07.2022 regarding 'Forest Cover'.

Details of States showing decline in Forest cover as per ISFR 2021 in comparison to previous assessment i.e. ISFR 2019.

(Area in square kilometre)

Sl. No.	State/UT	Geographical Area (GA)	Total Forest Cover	Change in Forest Cover w.r.t. ISFR 2019
1.	Arunachal Pradesh	83,743	66,431	-257
2.	Manipur	22,327	16,598	-249
3.	Nagaland	16,579	12,251	-235
4.	Mizoram	21,081	17,820	-186
5.	Meghalaya	22,429	17,046	-73
6.	West Bengal	88,752	16,832	-70
7.	Assam	78,438	28,312	-15
8.	Tripura	10,486	7,722	-4
9.	Punjab	50,362	1,847	-2
10.	Sikkim	7,096	3,341	-1
11.	Delhi	1,483	195.00	-0.44

Annexure-III

Annexure referred to in reply to part (c) of the Lok Sabha Starred Question No. 104 due for answer on 25.07.2022 regarding 'Forest Cover'

(Area in hectares)

Category : All Categories		During the Period : 01/04/2019 to 31/03/2022			
S. No.	STATE / UT	2019-2020	2020-2021	2021-2022	Grand Total
		Area Approved	Area Approved	Area Approved	Area Approved
1	Andaman and Nicobar	0.00	0.00	0.00	0.00
2	Andhra Pradesh	196.93	782.28	302.96	1282.18
3	Arunachal Pradesh	4577.84	95.37	1669.60	6342.80
4	Assam	19.98	1157.35	133.43	1310.76
5	Bihar	427.11	481.81	145.08	1054.00
6	Chandigarh	0.00	0.05	0.05	0.10
7	Chhattisgarh	0.00	209.10	1474.97	1684.07
8	Dadar& Nagar Haveli	11.70	1.15	0.13	12.98
9	Daman and Diu	0.00	0.00	2.43	2.43
10	Delhi	0.00	0.00	21.75	21.75
11	Goa	0.00	97.65	3.81	101.46
12	Gujarat	1785.91	1891.10	1714.47	5391.49
13	Haryana	566.19	363.61	571.92	1501.72
14	Himachal Pradesh	414.22	323.14	455.86	1193.22
15	Jammu and Kashmir	0.00	1.20	262.93	264.13
16	Jharkhand	903.90	413.67	771.58	2089.14
17	Karnataka	390.12	299.78	94.75	784.64
18	Kerala	0.80	1.20	3.90	5.90
19	Lakshadweep	0.00	0.00	0.00	0.00
20	Ladakh	0.00	0.00	0.00	0.00
21	Madhya Pradesh	2095.89	6352.90	3492.01	11940.80
22	Maharashtra	183.79	113.10	586.93	883.82
23	Manipur	24.50	0.00	242.13	266.63
24	Meghalaya	0.03	6.55	0.00	6.58
25	Mizoram	46.48	0.00	178.86	225.34
26	Nagaland	0.00	0.00	0.00	0.00
27	Orissa	4075.63	1842.86	1002.13	6920.62
28	Punjab	283.83	361.06	742.20	1387.09
29	Puducherry	0.00	0.00	0.00	0.00
30	Rajasthan	511.20	151.42	410.89	1073.51
31	Sikkim	0.00	0.00	20.20	20.20
32	Tamil Nadu	27.95	11.10	17.59	56.64
33	Telangana	377.94	628.00	209.99	1215.93
34	Tripura	294.38	348.04	248.33	890.75
35	Uttar Pradesh	39.68	1086.71	1701.08	2827.47
36	Uttarakhand	170.35	1156.89	519.66	1846.90
37	West Bengal	102.33	137.14	87.53	326.99
Grand Total		17528.69	18314.23	17089.14	52932.06

Source : <https://parivesh.nic.in>