

GOVERNMENT OF INDIA
MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE

RAJYA SABHA
UNSTARRED QUESTION NO. 1023
TO BE ANSWERED ON 13.02.2025

Impact of climate change

1023. DR. KANIMOZHI NVN SOMU:
SHRI R. GIRIRAJAN:

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

- (a) whether Government is aware of the serious consequences and impacts of climate change in the country and if so, the details thereof, if not, the reasons therefor;
- (b) whether Government has taken adequate steps to control carbon emissions and environmental degradation due to multiple factors and if so, the details thereof; and
- (c) the funds allocated to various States in the last five years to protect ecology and environment and to control environmental degradation, State-wise, year-wise?

ANSWER

MINISTER OF STATE IN THE MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE
(SHRI KIRTI VARDHAN SINGH)

(a) to (c) As per Climate Change 2022: Impacts, Adaptation and Vulnerability-Contribution of Working Group II to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change (IPCC); Global warming, reaching 1.5°C in the near-term, would cause unavoidable increases in multiple climate hazards and present multiple risks to ecosystems and humans. The level of risk will depend on concurrent near-term trends in vulnerability, exposure, level of socioeconomic development and adaptation. Near-term actions that limit global warming to close to 1.5°C would substantially reduce projected losses and damages related to climate change in human systems and ecosystems, compared to higher warming levels, but cannot eliminate them all.

As per the Third National Communication submitted by India to the United Nations Framework convention on the Climate Change (UNFCCC) in December 2023, India is experiencing full range of climate change impacts, ranging from floods and droughts to heat waves and glacier melt. The Government is seized of the matter and has taken number of steps to reduce the vulnerability and mitigate the impacts of the climate change.

India is an emerging economy where Greenhouse Gas emissions are set to increase, in pursuit of its development and poverty eradication goals. India's historical cumulative emissions from 1850 to 2019 amount to less than 4 percent of cumulative carbon dioxide emissions of the world, despite being home to 18 per cent of the world's population. Hence,

India's contribution to global warming is minimal and even current annual per capita emissions are only about one-third of the global average.

Nevertheless, India is committed to combating climate change by making development choices that ensure the growth and development of the economy along low-carbon pathways toward net zero by 2070. India is addressing the challenge with firm adherence to multilateralism based on equity and the principle of common but differentiated responsibilities and respective capabilities (CBDR-RC), as enshrined in the United Nations Framework Convention on Climate Change (UNFCCC).

The Government of India stands committed to combating climate change through its several programmes and schemes including the National Action Plan on Climate Change (NAPCC) which comprises nine missions in specific areas of solar energy, energy efficiency, water, sustainable agriculture, Himalayan ecosystem, sustainable habitat, health, green India, and strategic knowledge for climate change. The NAPCC provides an overarching framework for all climate actions. All these Missions focus on strategies to combat the adverse impacts of climate change, and, are institutionalized and implemented by the respective Nodal Ministries/Departments.

Further, thirty-four States and Union Territories (UTs) have prepared their respective State Action Plans on Climate Change (SAPCCs). The SAPCCs are designed to be context specific, and inter-alia, provide adaptation strategies considering each State's different ecological, social, and economic conditions.

The National Adaptation Fund for Climate Change (NAFCC) supports adaptation activities in the States and UTs that are vulnerable to the adverse effects of climate change. Under NAFCC, 30 projects have been sanctioned in 27 States and UTs with total project cost of Rs 847.48 crores.

In August 2022, India updated its Nationally Determined Contribution (NDC) demonstrating higher ambition in its climate action, as agreed under the Paris Agreement. India stands committed to reduce emissions intensity of its GDP by 45 percent by 2030, from 2005 level; achieve about 50 percent cumulative electric power installed capacity from non-fossil fuel-based energy resources by 2030 which would require transfer of technology and low-cost international finance including from Green Climate Fund.

India has progressively continued decoupling economic growth from GHG emissions. Between 2005 and 2020, India's gross domestic product (GDP) emission intensity reduced by 36%. It also reaffirms India's commitment to make a fair and equitable contribution to the global effort to mitigate climate change. Moreover, as of December 2024, the share of non-fossil fuel-based power generation capacity in the country is already over 47%.

India's forest and tree cover has consistently increased and currently stands at 25.17% of the total geographical area of the country. During 2005 to 2021, additional carbon sink of 2.29 billion tonnes of CO₂ equivalent has been created.

In addition, India's Long Term Low-Carbon Development Strategy (LT-LEDS) submitted to the UNFCCC in November, 2022, provides a framework involving seven key strategic transitions for achieving net-zero emissions by 2070, based on the principles of common but differentiated responsibilities and respective capabilities, equity, and climate justice. These include i) low-carbon development of electricity systems consistent with

development, ii) develop an integrated, efficient and inclusive transport system, iii) promote adaptation in urban design, energy and material efficiency in buildings, and sustainable urbanisation, iv) promoting economy-wide decoupling of growth from emissions and development of an efficient, innovative low emission industrial system, v) development of carbon dioxide removal and related engineering solutions, vi) enhancing forest and vegetation cover consistent with socio-economic and ecological considerations and vii) economic and financial needs of low-carbon development.

Central Government through various programmes and schemes anchored by relevant Ministries/ Departments aims to protect ecology and control environmental degradation. The Ministry of Environment, Forest and Climate Change (MoEFCC) supplements the efforts through various activities/schemes, which inter alia include National Mission for a Green India (GIM), Integrated Development of Wildlife Habitats, Compensatory Afforestation Fund Management and Planning Authority (CAMPA), Nagar Van Yojana (NVY), Mangrove Initiative for Shoreline Habitats & Tangible Incomes (MISHTI), and National Clean Air Programme (NCAP) etc. These programmes support the efforts of the States and UTs for ecological restoration through afforestation in and outside forest areas, forest landscape restoration, habitat improvement, soil and water conservation measures, and protection etc. The details of funds provided by the MoEFCC to States and UTs during the last five years and current year under the Green India Mission, Development of Wildlife Habitats, CAMPA, Nagar Van Yojana, MISHTI, and NCAP are given at Annexure-I to Annexure-VI, respectively.

Annexure I

Details of funds released to all States/UTs for the last five years and current year under National Mission for a Green India (GIM)

(Rs. in Crores)

Sl. No.	States	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25
1	Andhra Pradesh	0.00	0.00	2.02	0.00	0.00	0.00
2	Arunachal Pradesh	0.00	0.00	13.43	21.28	0.00	0.00
3	Chhattisgarh	5.04	1.66	6.12	0.00	0.09	0.00
4	Haryana	0.00	0.00	9.55	0.00	7.60	30.58
5	Himachal Pradesh	0.00	17.09	0.00	0.00	0.00	0.00
6	Jammu & Kashmir	0.00	25.73	0.00	6.49	0.00	4.50
7	Karnataka	2.21	2.35	4.45	2.93	2.33	4.99
8	Kerala	16.32	0.00	0.00	0.00	0.00	0.00
9	Madhya Pradesh	30.65	0.00	18.29	17.93	8.62	23.61
10	Maharashtra	0.00	0.00	0.00	0.00	0.00	0.00
11	Manipur	4.16	6.74	9.93	5.45	8.91	0.00
12	Mizoram	17.71	2.99	29.86	36.27	21.13	0.00
13	Odisha	14.19	26.01	17.74	8.4756	12.59	0.00
14	Punjab	3.19	-	3.32	2.7393	5.38	0.00
15	Sikkim	3.12	2.19	7.77	6.57	7.50	12.24
16	Uttarakhand	0.00	27.89	33.99	28.40	31.94	25.16
17	West Bengal	9.43	0.00	0.00	0.76	0.76	0.00
18	Uttar Pradesh	0.00	0.00	0.00	0.00	5.43	0.00
Total		106.01	112.65	156.46	137.29	112.28	101.09

Annexure II

**Details of funds released to State/ UT Governments under Central Sponsored Scheme -
'Development of Wildlife Habitats' during last five years.**

(₹ in lakhs)

S.No.	Name of States/UTs	2019-20	2020-21	2021-22	2022-23	2023-24
1	A& N Islands	132.64	0	135.77	25.125	0
2	Andhra Pradesh	0	0	0	0	0
3	Arunachal Pradesh	512.69	312.5865	419.80617	276.44062	672.462
4	Assam	164.26	0	0	209.1464	565.10763
5	Bihar	148.142	205.1644	410.85952	0	336.37223
6	Chandigarh	0	25.16	0	21.6241	16.498
7	Chhattisgarh	310.0318	104.35936	274.5903	104.457	116.24868
8	Goa	111.654	0	0	0	50.10
9	Gujarat	0	124.5849	0	200.01	206.99
10	Haryana	237.6078	18.2212	127.331	30.1575	167.85
11	Himachal Pradesh	375.76554	187.63518	197.09452	114.3205	94.15328
12	Jammu & Kashmir	0	80.62863	0	0	69.57972
13	Jharkhand	93.96	198.2265	79.53315	0	14.91025
14	Karnataka	739.046	586.126341	1256.59314	291.71146	581.52346
15	Kerala	845.026	731.2845	295.7737	224.4735	921.0361
16	Madhya Pradesh	629.266	801.60127	389.34906	265.5508	471.81959
17	Maharashtra	715.781	146.08135	0	350.3879	554.69645
18	Manipur	396.455	241.11948.	142.50646	180.64379	231.72407
19	Meghalaya	238.839	263.50463	530.51253	0	243.56611
20	Mizoram	431.79	339.60855	198.9678	190.1977	304.207
21	Nagaland	953.69	260.00105	342.0315	725.6565	1306.3275
22	Odisha	701.504	694.18819	726.80273	967.4976	1005.08612
23	Rajasthan	741.315	309.12634	1007.64845	86.78886	0
24	Sikkim	557.355	349.623	182.97174	239.66048	187.03237
25	Tamil Nadu	409.505	334.0354	390.75715	132.95205	373.8902
26	Telangana	0	36.59304	0	0	0
27	Uttar Pradesh	426.251	312.9244	169.06261	266.7472	290.64425
28	Uttarakhand	1401.19	441.61031	226.34415	212.9662	498.497
29	West Bengal	891.073	710.61953	757.25599	201.30866	385.29988
30	Puducherry	0	0	0	0	5.22
31	Lakshadweep	193.272	462.859	462.086	269.9055	124.655
32	Delhi	0	0	0	0	0
33	Tripura	90.317	260.679	0	0	186.05514
34	Ladakh UT	0	223.17292	31.95	61.11591	0.06
	Grand Total	12448.42614	8761.324971	8755.59767	5648.84523	9981.61203

Annexure III

Annual Plan of Operations approved by National CAMPA, in last five years

(Rs. In crore)

Sl. No	State/UT	APO Approved				
		2019-20	2020-21	2021-22	2022-23	2023-24
1.	Andaman and Nicobar Islands	Nil	2.13	Nil	10.97	6.70
2.	Andhra Pradesh	322.97	330.82	325.00	224.09	226.749
3.	Arunachal Pradesh	Nil	155.46	240.35	195.29	190.69
4.	Assam	55.89	88.34	95.01	162.57	109.69
5.	Bihar	140.18	238.76	106.84	115.42	37.88
6.	Chandigarh	1.87	2.26	3.6	1.66	1.54
7.	Chhattisgarh	848.51	1347.02	1500.76	688.46	471.21
8.	Delhi	Nil	19.55	16.15	33.93	47.15
9.	Goa	17.95	32.68	21.55	41.40	31.28
10.	Gujarat	256.47	240.69	200.00	205.40	250.02
11.	Haryana	100.97	203.95	317.59	270.68	69.03
12.	Himachal Pradesh	145.82	158.38	138.10	190.23	185.14
13.	Jammu and Kashmir	126.74	184.33	269.97	312.69	370.55
14.	Jharkhand	399.29	376.56	437.60	764.85	412.14
15.	Karnataka	146.23	212.94	321.09	270.98	313.89
16.	Kerala	Nil	15.78	25.13	17.26	9.06
17.	Ladakh	Nil	Nil	Nil	Nil	60.55
18.	Madhya Pradesh	456.09	860.93	713.46	889.84	1070.60
19.	Maharashtra	499.38	599.32	688.27	708.11	597.57
20.	Manipur	30.36	27.79	25.09	22.59	20.26
21.	Meghalaya	Nil	33.97	36.40	26.67	30.91
22.	Mizoram	Nil	32.66	18.08	16.74	14.60
23.	Odisha	610.52	773.39	901.03	1191.31	948.04
24.	Punjab	102.15	177.85	218.06	203.01	257.10
25.	Rajasthan	265.39	280.7	286.70	249.19	286.49
26.	Sikkim	54.99	75.49	73.15	69.82	79.95
27.	Tamil Nadu	Nil	66.62	0.00	38.22	44.149
28.	Telangana	501.26	483.78	752.71	772.65	455.30
29.	Tripura	20.83	21.51	35.24	52.90	85.77
30.	Uttar Pradesh	285.68	442.01	586.89	344.08	172.04
31.	Uttarakhand	218	353.64	726.88	320.15	383.82
32.	West Bengal	70.07	74	58.30	52.83	79.40
	Total	5677.61	7913.31	9139.00	8453.02	7319.27

Annexure IV

Details of funds released to State/ UT Governments under Nagar Van Yojana for the last five years from 2020-21 to 2024-25

(Rs. in lakhs)

S. No.	State/UT	Total Area approved in Ha	Number of projects approved	Total Approved Cost	2020-21	2021-22	2022-23	2023-24	2024-25	Total
1	Andaman & Nicobar	21.15	1	80.5	0	56.35	0	0	0	56.35
2	Andhra Pradesh	3203.41	61	11220.09	0	117.41	358.61	588.37	3549.55	9913.94
3	Arunachal Pradesh	20	1	80	0	0	56	0	24	80
4	Assam	59	3	242.3	0	169.61	0	0	0	169.61
5	Bihar	113.02	6	457.88	143.71	100.78	137.61	44.802	0	426.9
6	Chandigarh	6.79	1	19.16	0	0	13.41	0	0	13.41
7	Chhattisgarh	244.63	6	986.32	0	690.42	0	0	0	690.42
8	Goa	50	1	205.3	0	143.71	0	61.59	0	205.3
9	Gujarat	188.5	11	755	0	297.5	203	0	242.5	743
10	Haryana	168.54	5	641.46	0	449.02	0	0	0	449.02
11	Himachal Pradesh	172.07	6	694.08	0	166.46	319.4	0	0	485.86
12	Jammu & Kashmir	466.17	40	1858.67	0	138.46	476.28	107.34	686.33	1408.41
13	Jharkhand	597.36	30	2379.49	87.71	236.53	1341.41	145.29	0	1810.94
14	Karnataka	868.11	26	3164.968	216.02	140.35	0	260.44	1598.65	2215.46

S. No.	State/UT	Total Area approved in Ha	Number of projects approved	Total Approved Cost	2020-21	2021-22	2022-23	2023-24	2024-25	Total
15	Kerala	342.06	22	1357.04	0	949.93	0	0	0	949.93
16	Madhya Pradesh	1983.62	65	7329.97	216.86	870.35	1175.09	0	3260.97	5523.27
17	Maharashtra	184.14	9	726.83	158.06	156.86	193.87	0	0	508.79
18	Manipur	50	1	205.3	0	143.71	0	0	0	143.71
19	Meghalaya	86.7	2	346.8	0	0	242.76	0	0	242.76
20	Mizoram	730.8	16	2928.8	0	284.06	1766.1	121.74	0	2171.9
21	Nagaland	701.7	27	2813.1	0	129.29	0	1895.29	0	2024.58
22	Odisha	662.66	35	2672.94	0	1871.04	0	0	0	1871.04
23	Punjab	174.9	13	705.85	0	233.73	0	360.53	0	594.26
24	Rajasthan	823.92	23	3257.48	0	444.36	848.12	72.8	914.96	2280.24
25	Sikkim	239.63	7	957.71809	0	0	390.97	42	279.44	712.4087
26	Tamil Nadu	435	10	1747.3	0	593.11	630	0	0	1223.11
27	Telangana	1690.6	60	3532.6	0	0	582.88	0	1890	2472.88
28	Tripura	124.5	4	504.8	0	353.36	0	151.44	0	504.8
29	Uttar Pradesh	1019.5	33	4003.05	0	1964.94	5.6	0	831.6	2802.14

S. N o.	State/U T	Total Area approved in Ha	Number of projects approved	Total Approve d Cost	20 20- 21	20 21- 22	20 22- 23	20 23- 24	20 24- 25	Tot al
3 0	Uttarakh and	99.27	5	375.28	11 1.3	92. 4	86. 72	0	0	290 .42
3 1	West Bengal	97.48	14	395.57	0	10 2.0 6	16. 8	15 8.0 7	0	276 .93

The state-wise funds released under MISHTI through National CAMPA

(Rs. in Crores)

S. No.	States	Funds released
1	Gujarat	6.20
2	West Bengal	3.74
3	Kerala	0.67
4	Puducherry	1.94
5	Andhra Pradesh	4.71
6	Odisha	0.70
Total		17.96

State Wise release of funds under the National Clean Air Programme and 15th Finance Commission for FY 19-20 to 24-25 (Till February 10, 2025)								
National Clean Air Programme								
(amount in crore)								
Funds release during the year								
S. No.	State	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25	Total
1	Andhra Pradesh	6.36	152.28	77.58	75.06	49.81	0	361.09
2	Assam	0.36	12.00	0	24.10	34.20	0	70.66
3	Bihar	10.20	211.00	89.00	7.09	10.82	0	328.11
4	Chandigarh	8.28	5.00	4.61	6.87	8.05	0	32.81
5	Chhattisgarh	12.06	108.00	68.70	57.94	1.69	0	248.39
6	Delhi	0	0.00	11.25	22.50	8.94	0	42.69
7	Gujrat	12.00	405.00	217.71	173.29	277.42	0	1085.42
8	Haryana	0.00	48.00	6.25	19.28	0	0	73.53
9	Himachal Pradesh	0.24	10.00	0.48	3.59	3.19	0	17.50
10	Jammu & Kashmir	0.12	8.00	12.84	32.50	62.49	0	115.95
11	Jharkhand	6.00	159.00	72.44	42.00	0	0	279.44
12	Karnataka	6.30	280.52	154.67	128.52	27.51	0	597.52
13	Madhya Pradesh	20.60	300.52	151.20	135.04	43.18	0	650.54
14	Maharashtra	39.85	804.40	453.24	386.83	70.08	0	1754.40
15	Meghalaya	0	3.00	0	0.45	4.50	0	7.95
16	Nagaland	0.12	6.00	0.93	3.95	9.00	0	20.00
17	Odisha	6.18	6.04	3.64	38.52	20.23	0	74.61
18	Punjab	12.48	105.04	33.75	56.88	53.55	0	261.70
19	Rajasthan	18.12	284.80	122.94	103.76	80.63	0	610.25
20	Tamil Nadu	0.06	236.00	131.70	129.22	38.93	0	535.91
21	Telangana	11.00	236.76	118.79	92.96	164.07	0	623.58
22	Uttar Pradesh	48.47	726.16	218.63	672.83	594.94	330.75	2591.78
23	Uttrakhand	0.12	11.00	5.67	22.30	29.18	0	68.27
24	West Bengal	6.00	432.00	165.60	173.42	312.76	0	1089.78
Total		224.92	4550.52	2121.62	2408.90	1905.17	330.75	11541.88