

GOVERNMENT OF INDIA
MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE

RAJYA SABHA
UNSTARRED QUESTION NO. 994
TO BE ANSWERED ON 15.12.2022

Measures to contain forest fire

994. SMT. JEBI MATHER HISHAM:

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

- (a) whether Government has taken stock of the operational dynamism of The National Plan on Forest Fires in the wake of the changing climate, the details thereof;
- (b) whether Government has developed a robust forest fire alert system that can provide real-time impact-based alerts taking climate change indicators into consideration, the State- wise details thereof; and
- (c) whether Government will take measures to strengthen the post-forest fire assessment to understand the long-term impacts of fires, especially against the backdrop of the changing climate, if so, the details thereof, if not, the reasons therefor?

ANSWER

MINISTER OF STATE IN THE MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE
(SHRI ASHWINI KUMAR CHOUBEY)

- (a) Forest fire prevention and its management is primarily the responsibility of concerned State Governments /UT Administration. The Ministry has prepared National Action Plan on Forest Fire (NAPFF) in the year 2018 to minimize forest fires by informing, enabling and empowering forest fringe communities and incentivizing them to work in tandem with the Forest Departments, reducing the vulnerability of forests across the diverse forest ecosystems in the country against fire hazards, enhancing the capabilities of forest personnel and institutions in fighting fires, and speeding up recovery after a fire event, and also constituted Central Monitoring Committee (CMC) for overseeing its implementation. So far, five meetings of CMC have been conducted to review the implementation of NAPFF and preparedness of States/UTs regarding Forest Fire prevention and management in the country.

The Ministry also supports the efforts of the States/ UTs in prevention and control of forest fire by providing financial assistance for various forest fire prevention and mitigation measures under the Centrally Sponsored Forest Fire Prevention and Management Scheme.

- (b) Forest Survey of India (FSI) an organization under the Ministry disseminates Near Real Time (NRT) forest fire alerts detected using Moderate Resolution Imaging Spectro- Radiometer (MODIS) Sensor aboard Aqua and Terra satellites and SNPP-VIIRS (Suomi National Polar-Orbiting Partnership-Visible and Infrared Imager/Radiometer Suite) sensors on a near- real time basis to all the State Forest Department and other registered users during forest fire season. In Forest Fire Danger Rating System (FFDRS), the Fire Weather Index (FWI) generated as an intermediate product uses parameters such as Fine Fuel Moisture Code, Duff Moisture Code, Drought Code, Initial Spread Index, Build- Up Index, which are derived using the climatic factors. State-wise number of forest fire detections by FSI using MODIS and SNPP-VIIRS sensor in forest fire season during last three years is given in **Annexure-I**.
- (c) The Ministry through Indian Council of Forestry Research and Education (ICFRE) in collaboration with Forest Survey of India, Wildlife Institute of India, National Institute of Hydrology and GB Pant National Institute of Himalayan Environment & Sustainable Development has conducted a pilot study on Estimation of Economic Losses in Real Term per Hectare basis due to Forest Fire in Uttarakhand and Madhya Pradesh to understand the long-term economic and ecological impacts of forest fires on flora and fauna.

Annexure-I

ANNEXURE REFERRED TO IN REPLY TO PART (B) OF THE RAJYA SABHA UNSTARRED QUESTION NO. 994 DUE FOR ANSWER ON 15.12.2022 REGARDING MEASURES TO CONTAIN FOREST FIRE ASKED BY SMT. JEBI MATHER HISHAM

S.No.	State/UT	MODIS Detections			SNPP-VIIRS Detections		
		Nov 2019 to June 2020	Nov 2020 to June 2021	Nov 2021 to June 2022	Nov 2019 to June 2020	Nov 2020 to June 2021	Nov 2021 to June 2022
1	Andaman & Nicobar Islands	15	2	3	39	16	33
2	Andhra Pradesh	1,080	2,888	1716	9,996	19,328	14,138
3	Arunachal Pradesh	660	1,109	1116	1,786	3,914	3,449
4	Assam	3,000	3,387	2305	8,924	10,718	8,158
5	Bihar	50	537	222	614	5,179	3,024
6	Chandigarh	0	0	0	2	0	0
7	Chhattisgarh	416	3,112	1942	6,360	38,106	25,792
8	Dadra & Nagar Haveli	1	3	1	21	33	15
9	Daman & Diu	0	0	0	0	1	3
10	Delhi	3	5	5	21	14	3
11	Goa	4	10	5	47	45	20
12	Gujarat	202	422	236	2,770	3,803	2,769
13	Haryana	39	25	37	68	152	135
14	Himachal Pradesh	80	533	601	536	4,110	5,280
15	Jammu & Kashmir including Ladakh	62	131	524	438	1,098	4,282
16	Jharkhand	101	1,563	630	2,613	21,713	9,419
17	Karnataka	538	932	800	4,232	5,784	4,973
18	Kerala	142	51	61	864	296	504
19	Lakshadweep	0	0	0	0	0	0
20	Madhya Pradesh	1,383	7,103	3908	9,537	47,795	32,728
21	Maharashtra	1,102	4,297	2309	14,018	34,025	22,052
22	Manipur	2,475	3,252	1638	8,800	10,457	5,544
23	Meghalaya	1,826	2,052	1431	6,762	7,658	6,322
24	Mizoram	2,816	4,345	2105	7,361	12,846	8,734
25	Nagaland	1,248	1,726	1309	2,905	4,975	3,471
26	Odisha	1,326	5,307	2086	10,602	51,968	22,014
27	Puducherry	1	1	0	0	1	0
28	Punjab	52	171	128	153	635	428
29	Rajasthan	420	447	238	3,461	3,402	2,703
30	Sikkim	5	17	11	47	63	26
31	Tamil Nadu	187	202	151	1,368	1,220	1,035
32	Telangana	1,042	2,566	1372	12,132	18,237	13,737
33	Tripura	1,467	1,664	310	4,369	5,015	2,609
34	Uttar Pradesh	396	1,667	905	1,548	8,608	5,428
35	Uttarakhand	167	2,710	1337	759	21,487	12,985
36	West Bengal	141	548	233	1,320	3,287	1,520
Total		22,447	52,785	29,675	1,24,473	3,45,989	2,23,333