

under these instruments, and independent studies rate India's efforts highly. The extent of climate change will depend on climate action by all countries, especially the developed countries who have had agreed to take lead in addressing climate change.

The Government of India also stands committed to combating climate change through its several programs and schemes. This includes *inter-alia* implementation of National Action Plan on Climate Change (NAPCC), which comprises of missions in specific areas of solar energy, energy efficiency, water, agriculture, Himalayan ecosystem, sustainable habitat, green India and strategic knowledge on climate change.

Under the Paris Agreement (PA), India has submitted its Nationally Determined Contribution (NDC) outlining eight (8) targets for 2021-2030, including (i) to reduce the emissions intensity of its GDP by 33 to 35 per cent by 2030 from 2005 level, (ii) to achieve about 40 per cent cumulative electric power installed capacity from non-fossil fuel-based energy resources by 2030 with the help of transfer of technology and low-cost international finance, (iii) to create an additional carbon sink of 2.5 to 3 billion tonnes of CO<sub>2</sub> equivalent through additional forest and tree cover by 2030.

Thirty-three states and Union Territories have prepared State Action Plans on Climate Change (SAPCC) consistent with the objectives of NAPCC to address their State-specific action. These SAPCCs *inter-alia* outline sector-specific and cross-sectoral priority actions.

For addressing the challenge of climate change, India adheres to the paramountcy of the UNFCCC processes. It has proactively contributed to multilateral efforts to combat climate change and continues to do so while undertaking its own independent, enhanced initiatives in climate mitigation and adaptation besides meeting all its commitments under the UNFCCC, its Kyoto Protocol (KP) and PA. Independent studies rate India's efforts highly and compliant with the requirements under PA.

#### **Combating desertification of fertile land**

842. SHRIMATI AMBIKA SONI: Will the Minister of ENVIRONMENT, FOREST AND CLIMATE CHANGE be pleased to state:

- (a) the total quantum of degraded land in the country, State-wise;
- (b) whether Government has formulated any plan to convert degraded land into fertile and if so, the details thereof; and

(c) the steps taken by the Government to combat desertification of fertile land, study the causes of desertification and devise solutions?

THE MINISTER OF STATE IN THE MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE (SHRI BABUL SUPRIYO): (a) As per the Desertification and Land Degradation Atlas of India, prepared for the period 2011-2013, by the Space Applications Centre, 29.32 % *i.e.* 96.4 million hectares of the Total Geographical Area of the country is undergoing the process of degradation. The details are:-

Sl. No.	Name of the State	Total Area under Desertification (hectares)	Total Area under Desertification (%)
1	2	3	4
1.	Andhra Pradesh	2298758	14.35
2.	Arunachal Pradesh	153933	1.84
3.	Assam	716596	9.14
4.	Bihar	694809	7.38
5.	Chhattisgarh	2211153	16.36
6.	Delhi	89868	60.60
7.	Goa	192973	52.13
8.	Gujarat	10261641	52.29
9.	Haryana	338964	7.67
10.	Himachal Pradesh	2394240	43.01
11.	Jammu and Kashmir	7969607	35.86
12.	Jharkhand	5498726	68.98
13.	Karnataka	6951000	36.24
14.	Kerala	379587	9.77
15.	Madhya Pradesh	3804315	12.34
16.	Maharashtra	13825935	44.93
17.	Manipur	601959	26.96

1	2	3	4
18.	Meghalaya	494880	22.06
19.	Mizoram	187453	8.89
20.	Nagaland	786678	47.45
21.	Odisha	5304114	34.06
22.	Punjab	144653	2.87
23.	Rajasthan	21526512	62.90
24.	Sikkim	78749	11.10
25.	Tamil Nadu	1543898	11.87
26.	Telangana	3598856	31.34
27.	Tripura	437128	41.69
28.	Uttar Pradesh	1528997	6.35
29.	Uttarakhand	648253	12.12
30.	West Bengal	1733931	19.54
TOTAL		96398166	29.32

(b) and (c) National Afforestation and Eco Development Board (NAEB) Division of the Ministry of Environment, Forest and Climate Change is implementing the "National Afforestation Programme (NAP)" for ecological restoration of degraded forest areas under which an area of over 2 million ha has been approved for afforestation at a cost of ₹3874 crore. NAP also supports Soil Moisture Conservation activities to improve the soil moisture regime in the implementation area along with providing livelihood support for the locals. Various other schemes like Green India Mission, fund accumulated under Compensatory Afforestation Fund Management and Planning Authority (CAMPA), Nagar Van Yojana etc. also help in checking degradation and restoration of forest landscape. MoEF&CC also promote tree outside forests realizing that the country has a huge potential for increasing its Trees Outside Forest (TOF) area primarily through expansion of agroforestry, optimum use of wastelands and vacant lands.

Department of Land Resources, Ministry of Rural Development is contemplating to initiate a new programme under which it is proposed to sanction new projects

covering 5 million ha/year from 2020-21 to 2023-24. It is also proposed to complete 577 ongoing projects which have life span upto 2021-22 subject to approval of the Government for continuation of the existing scheme beyond March, 2020.

Various steps have been taken by the Government of India to address the impact of desertification, Ministry of Agriculture and Farmers' Welfare has taken up various programmes like the National Mission for Sustainable Agriculture which includes interventions such as the Soil Health Card, Paramparagat Krishi Vikas Yojna, Mission Organic Value Chain Development for North-Eastern Region, Rain Fed Area Development, National Agro-Forestry policy and the sub-Mission on Agro-Forestry, National Bamboo Mission, Prime Minister Krishi Sinchai Yojna- Per Drop More Crop (PMKSY) etc.

The Integrated Watershed Management Programme (of the Watershed Management Division of the Ministry of Rural Development) was amalgamated as a Watershed Development Component of PMKSY in 2015-16 and an area of about 20.5 million hectares has been developed under completed and ongoing projects. Upto October 2019 an amount of ₹ 17751.75 crore has been released to States as Central share for implementation of Watershed Development Project. Between 2014-15 to 2019-20 (upto September 2019), total 6,08,384 water harvesting structures were created/rejuvenated, an additional area of 13,47,527 hectares has been brought under protective irrigation, and 27,25,587 farmers have been benefitted during the said period. Under afforestation/horticultural activities 92,000 hectares degraded and rain-fed lands have been covered during 2018-19 and 2019-20 (upto second quarter).

Studies have also been carried out under the Indian Council of Agricultural Research to combat desertification on various issues such as assessment of status of desertification in India's Arid Regions through satellite remote sensing and identification of field-based indicators; checking soil erosion, sand movement and control wind erosion through sand dune stabilisation, shelter-belt plantation and soil and water conservation; rehabilitation of mine spoil areas; methodology for reclaiming degraded land due to water logging and salinity-alkalinity etc.

During the recently United Nation Convention to Combatting Desertification(UNCCD) Conference of Parties COP14, hosted by India India, Hon'ble Prime Minister of India announced that India will achieve Land Degradation Neutrality and raised the target to restore the degraded land by 26 million hectare by 2030.