

Kalyan Dombivli, Kolkata, Meerut, Navi Mumbai, Pimpri-Chinchwad, Pune, Thane and Vijayawada exceed the NAAQS of $40 \mu\text{g}/\text{m}^3$ annual standard. With respect to PM_{10} , fluctuating trend have been observed in these cities.

(c) and (d) The number of patients with respiratory diseases during 2013-15 has shown minimal increase. However, respiratory problems are caused by number of factors such as food habits, occupation, socio-economic status, medical history, immunity etc. including air pollution.

(e) The Government has taken several steps to address air pollution which *inter alia*, include notification of National Ambient Air Quality Standards; setting up of monitoring network for assessment of ambient air quality; introduction of cleaner/alternate fuels like gaseous fuel (CNG, LPG etc.), ethanol blending, launching of National Air Quality index; universalization of BS-IV by 2017; leapfrogging from BS-IV to BS-VI fuel standards by 1st April, 2020; notification of Construction and Demolition Waste Management Rules; banning of burning of biomass; promotion of public transport network; Pollution Under Control Certificate; issuance of directions under Section 18(1)(b) of Air (Prevention and Control of Pollution) Act, 1981 and under Section 5 of Environment (Protection) Act, 1986; installation of on-line continuous (24x7) monitoring devices by major industries; collection of Environmental Protection Charge on more than 2000 CC diesel vehicles; notification of graded response action plan for Delhi and NCR etc.

Impact of climate change on lives and livelihoods of tribals

4190. PROF. M. V. RAJEEV GOWDA: Will the Minister of ENVIRONMENT, FOREST AND CLIMATE CHANGE be pleased to state:

(a) whether Government has conducted any study to assess the impact of climate change on lives and livelihoods of people staying in tribal areas;

(b) if so, the details thereof and what mitigation measures Government has planned to cope with the projected impacts; and

(c) if not, the reasons therefor?

THE MINISTER OF STATE OF THE MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE (SHRI ANIL MADHAV DAVE): (a) A scientific study to assess the impact of climate change has been undertaken and a report entitled "Climate Change and India: A 4X4 Assessment—A Sectoral and Regional Analysis for 2030s" was published in 2010 by the Government. The study assessed impacts of climate change on four key sectors of Indian economy, namely, agriculture, water, forests and human health in four climate sensitive regions of India, namely,

the Himalayan region, the Western Ghats, the Coastal region and the North-Eastern Region. However, this Ministry has not conducted any study for specific assessment of climate change impact on lives and livelihoods of people staying in tribal areas.

(b) and (c) Recognizing the challenge of Climate Change, Government is implementing the National Action Plan on Climate Change (NAPCC) which has eight missions. States/Union Territories have been asked to prepare State Action Plan on Climate Change (SAPCC) consistent with objectives of NAPCC highlighting State's specific issues relating to climate change. The SAPCCs prepared by 32 States/UTs, *inter alia*, indicate sector specific and cross sectoral priority action. The SAPCCs also focus on adaptation of vulnerable areas in their respective jurisdictions.

Effect of El Nino around Lakshadweep

4191. SHRI KIRANMAY NANDA: Will the Minister of ENVIRONMENT, FOREST AND CLIMATE CHANGE be pleased to state:

(a) whether Government is aware that as per reports of National Conservation Foundation, due to El Nino effect, temperature and acidity of sea water are increasing at Lakshadweep and is giving a bleaching effect for Corals' life and if so, the details of such reports; and

(b) the steps Government proposes to take to deal with such a situation?

THE MINISTER OF STATE OF THE MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE (SHRI ANIL MADHAV DAVE): (a) The National Conservation Foundation, a Non-Profit organization based at Mysore, in its Annual Report 2016, has reported bleaching of coral reefs due to El Nino effect in the Lakshadweep. The report mentions that even the deepest reefs which are normally protected because of its location showed signs of extensive bleaching and many coral genera that were considered stress tolerant also showed signs of bleaching in many reefs across the archipelago.

(b) 32 States and Union Territories (UTs) have prepared State Action Plan on Climate Change (SAPCC) which addresses State specific issues relating to climate change. The Union Territory of Lakshadweep in its SAPCC has formulated prioritized adaptation strategies for conservation of coral reefs which include (a) Undertaking periodic monitoring of the extent and health of coral reef system in the Lakshadweep area by setting up a multi-disciplinary Coral Monitoring Team comprising of experts from various departments like Environment and Forests, Fisheries, Agriculture and scientific institutions; (b) Stricter enforcement of laws for the protection of coral reef and lagoon; and (c) Restoration of degraded lagoons and corals including through coral transplanting in heavily degraded areas.