

between the AISMR and ENSO. Despite the above, the average value of seasonal quantum of rainfall (847.5 mm) did not change significantly.

Understanding impact of Indian Ocean warming on marine biodiversity needs long-term data sets covering variations in the biota of the region. Although satellite now provides over a decade of data on chlorophyll and primary productivity at high spatial and temporal resolution, the data period is still restrictive in addressing inter-annual or long-term changes as only two clear positive IODs have developed during the last 10 years. While the two events did not significantly impact surface chlorophyll in the Southwestern Indian Ocean, the region did exhibit negative Net Primary Productivity (NPP) anomalies.

Cancer disease due to toxic air

1131. SHRI BAISHNAB PARIDA: Will the Minister of ENVIRONMENT, FOREST AND CLIMATE CHANGE be pleased to state:

- (a) whether it is a fact that toxic air is fast increasing in India;
- (b) whether it is a fact that toxic air contribute in a big way to cancer disease in India; and
- (c) if so, the details thereof with an action plan to control this abuse?

THE MINISTER OF STATE OF THE MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE (SHRI PRAKASH JAVADEKAR): (a) and (b) The ambient air quality problem is prevailing in many cities of the world. Some world's cities are non-compliant in respect of particulate matter while other cities are non-compliant for benzene, nitrogen oxides, Ozone etc. The issues of pollution of Delhi are also known. There is no established methodology to establish direct correlation between toxic air and cancer diseases. The impacts of various pollutants on health is a result of complex mixture of pollutants and also there are several synergistic and additive factors like heredity, socio-economic condition, medical health, habits, occupation etc. contributing to it.

The Central Pollution Control Board (CPCB) monitors air quality in the country through National Ambient Air Quality Programme (NAMP). NAMP network presently comprises 593 operating monitoring stations located in 249 cities/towns in 28 States and 5 Union Territories across the country.

The analysis of ambient air quality data available for 42 million-plus cities during 2014 [except for Vasai Virar and Srinagar which do not have operational stations; and Howrah and Patna for which data is not available with respect to SO₂] revealed that all 42 cities are within the NAAQS of 50 µg/m³ (annual standard).

As for NO_2 , out of 42 cities, 9 cities (namely Delhi, Jaipur, Kalyan Dombivali, Meerut, Pimpri-Chinchwad, Pune, Raipur and Thane) exceed the NAAQS of $40 \mu\text{g}/\text{m}^3$ (annual standard). With respect to PM_{10} , out of 42 cities, 39 cities do not comply with the NAAQS of $60 \mu\text{g}/\text{m}^3$ (annual standard). However, 3 cities (namely Chennai, Coimbatore and Madurai) are complying with the National Standard of $60 \mu\text{g}/\text{m}^3$ (annual standard) *w.r.t.* PM_{10} .

(c) To minimize the impact of air pollution from the particulate matter, Government has *inter-alia* taken the following actions:

- Notification of National Ambient Air Quality Standards 2009, envisaging 12 pollutants;
- Formulation of regulations/statutes to address the rising levels of air pollution in the country;
- Setting up of monitoring network for assessment of ambient air quality;
- Execution of source apportionment studies in select cities and formulation of action plans for air quality in cities;
- Introduction of cleaner/alternate fuel like CNG, LPG etc. and promotion of public transport network including Metro;
- Creation of infrastructure for industrial pollution control incorporating cleaner production processes, setting up of common pollution control facilities.

After realizing the gravity of pollution, following more concrete measures have been taken:

- Implementation of Bharat Stage IV norms in the 63 selected cities and Bharat Stage III norms in rest of the country;
- National Air Quality Index was launched by the Prime Minister in April, 2015 starting with 10 cities;
- Clean India Mission (Swatch Bharat Abhiyan) has been launched;
- Banning of burning of leaves/biomass;
- Relevant draft rules, including those pertaining to construction and demolition waste have been notified;
- Draft Rules for handling and management of municipal waste have been notified;
- Regular co-ordination meetings are being held at official and ministerial level with Delhi and other State Governments within the National Capital Region (NCR) on 6th April, 13th April and 24th July, 2015 to control air pollution in NCR adopting air-shed approach;

- Short-term plan has been reviewed and long-term plans have been formulated by States to mitigate pollution in NCR;
- Construction of Eastern and Western Expressways is given high priority for completion;
- Stringent industrial standards have been formulated and notified for public/stakeholders comments;
- Government is giving high priority for public partnership in lane discipline, car pooling, vehicle maintenance, pollution under control certification, idling of vehicles etc.
- Out of 2800 major industries, 920 industries have installed on-line continuous (24X7) monitoring devices; others are in process of installing.
- Central Pollution Control Board has written to State Governments for formulating action plan for mitigation of air pollution in about 95 non-compliant cities in the country.

Cities facing danger of global warming

1132. SHRI KIRANMAY NANDA: Will the Minister of ENVIRONMENT, FOREST AND CLIMATE CHANGE be pleased to state:

(a) whether it is a fact that various cities in the country find place in the list of areas that face the danger of global warming, if so, the details thereof;

(b) whether other coastal cities are also included in the list, if so, the names thereof; and

(c) the steps/measures taken/being taken by Government in this regard?

THE MINISTER OF STATE OF THE MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE (SHRI PRAKASH JAVADEKAR): (a) and (b) As per the Fifth Assessment Report of the InterGovernmental Panel on Climate Change (titled Climate Change 2014: Impacts, Adaptation, and Vulnerability. Part B: Regional Aspects. Contribution of Working Group II) Delhi, Kolkata and Mumbai have been identified as the cities that are expected to face the danger of global warming in form of flooding in the time frame of 2070s based on probabilistic models.

(c) Recognizing the challenge of Climate Change, Government is implementing the National Action Plan on Climate Change (NAPCC) which has eight missions. Amongst these, the National Mission on Sustainable Habitat addresses these issues. State Governments have also prepared State Action Plan on Climate Change in line with the objectives of NAPCC to address the State specific issues, including coastal areas.