

**Recyclable Waste**

1312. DR. KANWAR DEEP SINGH: Will the Minister of ENVIRONMENT, FOREST AND CLIMATE CHANGE be pleased to state:

- (a) how much recyclable waste is being generated every day in Delhi, Kolkata, Chennai and Mumbai;
- (b) what percentage of it is plastic waste;
- (c) how much of these is being disposed of as per the rules; and
- (d) the reasons, if it is not so disposed?

THE MINISTER OF STATE OF THE MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE (SHRI ANIL MADHAV DAVE): (a) to (d) The data on city-wise generation of recyclable waste is not available. Central Pollution Control Board has estimated generation of 15,342 tons of plastic waste per day in the country, out of which, 9205 tons was reported to be recycled. The urban areas are facing challenges of waste disposal, *inter alia*, on account of rapid urbanization, increasing population, lack of public awareness, financial constraints and inadequate capacities of Local Bodies.

The Government has notified new waste management rules, namely Plastic Waste Management Rules 2016, E-waste (Management) Rules, 2016, Bio-Medical Waste Management Rules, 2016, Construction and Demolition Waste Management Rules, 2016, Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and Solid Waste Management Rules, 2016 for effective implementation of the Rules, by giving thrust on waste minimization, segregation of waste at source by generators, gainful utilisation of waste through recycling and recovery, and setting up of sustainable waste management system by involving local bodies, producers, and brand owners based on instruments of Extended Producers Responsibility.

**Population of tigers**

†1313. SHRI MEGHRAJ JAIN: Will the Minister of ENVIRONMENT, FOREST AND CLIMATE CHANGE be pleased to state:

- (a) the details about the number of tigers in the country, State-wise;
- (b) whether the total number of tigers has increased during the last few years and if so, the details thereof, State-wise;
- (c) the details of methodologies adopted for tiger census; and

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† Original notice of the question was received in Hindi.

(d) whether any accurate methodologies and scientific techniques have been adopted for the above census and if so, the details thereof?

THE MINISTER OF STATE OF THE MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE (SHRI ANIL MADHAV DAVE): (a) The assessment of the status of tigers, co-predators and their prey 2014 using the refined methodology has shown estimated number of 2226 (range 1945-2491) tigers in the country. The State-wise details are given in the Statement-I (*See* below).

(b) All India Tiger Estimation, 2014 has shown a countrywide 30% increase in tiger numbers with an estimated number of 2226 (range 1945-2491 tigers) as compared to 2010 estimation of 1706 (range 1520-1909 tigers). The details of tiger estimation pertaining to tiger landscapes, State-wise for the years 2010 and 2014 are given in the Statement-II (*See* below).

(c) and (d) The countrywide assessment of tiger status uses a double sampling approach to estimate the distribution and abundance of tigers in India. The first component of the double sampling consists of ground surveys of all potential tiger bearing forests in 18 States wherein the following information is collected by the State Forest Department personnel:

- Ground surveys for determining occupancy of habitat by tigers and other predators
- Line transects to estimate prey abundance
- Sampling plots on the line transects to assess
  - ♦ habitat characteristics,
  - ♦ human impacts, and
  - ♦ prey dung density.

Alongwith the information generated by the ground surveys, latest remotely sensed data on (a) landscape characteristics, (b) human “foot-print”, and (c) habitat attributes are subsequently used to model tiger occupancy and abundance.

The second component of the double sampling consists of (a) scientifically rigorous abundance estimation in select sampling units using a remote camera trap based capture recapture technique for estimating tiger and other carnivore abundance and (b) line transect based distance sampling for estimating prey abundance.

**Statement-I***Details of tiger estimation, State-wise for the year 2014*

State	Tiger Population 2014
<b>Shivalik-Gangetic Plain Landscape Complex</b>	
Uttarakhand	340
Uttar Pradesh	117
Bihar	28
Shivalik Gangetic	485 (427-543)
<b>Central Indian Landscape Complex and Eastern Ghats Landscape Complex</b>	
Andhra Pradesh (including Telangana)	68
Chhattisgarh	46
Madhya Pradesh	308
Maharashtra	190
Odisha	28
Rajasthan	45
Jharkhand	3+
Central India	688 (596-780)
<b>Western Ghats Landscape Complex</b>	
Karnataka	406
Kerala	136
Tamil Nadu	229
Goa	5
Western Ghats	776 (685-861)
<b>North Eastern Hills and Brahmaputra Flood Plains</b>	
Assam	167
Arunachal Pradesh	28♣
Mizoram	3+
North West Bengal	3
North East Hills, and Brahmaputra	201 (174-212)
Sunderbans	76 (92-96)
TOTAL	2226 (1945-2491)

♣ From camera trap data and scat DNA

+ From scat DNA

*Note:* Much of the tiger occupied areas could not be surveyed owing to naxal problem  
Tiger estimation was not done in the year 2010.

**Statement-II**

*Details of tiger estimation pertaining to tiger landscapes, State-wise for the years 2010 and 2014*

State	Tiger Population		
	2010	2014	Increase/ Decrease/Stable
1	2	3	4
<b>Shivalik-Gangetic Plain Landscape Complex</b>			
Uttarakhand	227 (199-256)	340	Increase
Uttar Pradesh	118 (113-124)	117	Stable
Bihar	8 (-)	28	Increase
Shivalik Gangetic	353 (320-388)	485 (427-543)	Increase
<b>Central Indian Landscape Complex and Eastern Ghats Landscape Complex</b>			
Andhra Pradesh (including Telangana)	72 (65-79)	68	Stable
Chhattisgarh	26 (24-27)	46	Increase
Madhya Pradesh	257 (213-301)	308	Increase
Maharashtra	169 (155-183)	190	Increase
Odisha	32 (20-44)	28	Stable
Rajasthan	36 (35-37)	45	Increase
Jharkhand	10 (6-14)	3+	Decrease*
Central India	601 (518-685)	688 (596-780)	Increase
<b>Western Ghats Landscape Complex</b>			
Karnataka	300 (280-320)	406	Increase
Kerala	71 (67-75)	136	Increase
Tamil Nadu	163 (153-173)	229	Increase
Goa	-	5	Increase
Western Ghats	534 (500-568)	776 (685-861)	Increase
<b>North Eastern Hills and Brahmaputra Flood Plains</b>			
Assam	143 (113-173)	167	Increase

1	2	3	4
Arunachal Pradesh	-	28♣	Increase
Mizoram	5	3+	Stable
North West Bengal	-	3	**
North East Hills, and Brahmaputra	148 (118-178)	201 (174-212)	Increase
Sunderbans	70 (64-90)	76 (92-96)	Stable
TOTAL	1706 (1520-1909)	2226 (1945-2491)	Increase

+ From scat DNA

♣ From camera trap data and scat DNA

\* Much of the tiger occupied areas could not be surveyed owing to naal problem

\*\* Tiger estimation was not done in the year 2010

### Decrease in forest cover

†1314. SHRI MEGHRAJ JAIN: Will the Minister of ENVIRONMENT, FOREST AND CLIMATE CHANGE be pleased to state:

(a) whether the forest cover is decreasing in the country due to encroachment and human activities and if so, the details thereof, State-wise;

(b) whether Government proposes to make digital mapping and physical counting/assessment of trees in those areas where usually forest cover is encroached upon and forests are cut and if so, the details thereof and if not, the reasons therefor; and

(c) whether Government has any plan to increase forest area/cover in the country and if so, the details thereof?

THE MINISTER OF STATE OF THE MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE (SHRI ANIL MADHAV DAVE): (a) No, Sir. Forest Survey of India, Dehradun, a subordinate organization under Ministry of Environment, Forest and Climate Change, has been carrying out the assessment of forest cover of the country biennially. The findings of the assessment are published in India State of Forest Report. The latest report in the series is India State of Forest Report-2015. As per this report, the total forest cover of the country is 7,01,673 square kilometers which is 21.34% of the total geographical area of the country. There is a net increase of 3775 square kilometers in the forest cover of the country as compared with India State of Forest Report-2013. The detailed list showing forest cover and change in forest cover States/UTs-wise is given in the Statement (*See below*).

† Original notice of the question was received in Hindi.