

GOVERNMENT OF INDIA
MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE

LOK SABHA
UNSTARRED QUESTION NO. 2323
TO BE ANSWERED ON 09.03.2018

Population of Tigers

2323. SHRI NALIN KUMAR KATEEL:
SHRI G.M. SIDDESHWARA:

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

- (a) the total number of population of tigers in the country during the last three years, State/UT-wise;
- (b) whether the total number of tigers has increased during the last few years and if so, the details thereof, State/UT-wise;
- (c) the details of methodologies adopted for tiger census;
- (d) whether any accurate methodologies and scientific techniques have been adopted for the above census and if so, the details thereof;
- (e) the total number of incidents of killing and poaching of tigers reported from various States during the last three years; and
- (f) whether the Government has put any appropriate mechanism in place to check such incidents and if so, the details thereof?

ANSWER

MINISTER OF STATE IN THE MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE
(DR. MAHESH SHARMA)

- (a) & (b) As per the assessment of Status of Tigers, Co-predators and Prey, 2014 using the refined / state-of-the art methodology, the tiger number has shown a 30% increase countrywide with an estimated number of 2226 (range 1945-2491) as compared to the 2010 estimation of 1706 (range 1520-1909 tigers). The country level tiger estimation using the refined / state-of-the art methodology is done once in four years. The details of tiger estimation pertaining to tiger landscapes in the country for the years 2010 and 2014 are at **Annexure-I**. The population of tigers, reserve-wise, is at **Annexure-II**.
- (c) & (d) The All India Tiger Estimation, 2014 was a refinement over the 2006 and 2010 exercise, wherein robust spatially explicit capture recapture protocols using joint models have been employed. The method is peer reviewed in both national and international fora and has been published in an international scientific journal. The national assessment 2018 is being conducted by the National Tiger Conservation Authority in collaboration with the State Forest Departments, Wildlife Institute of India and National level Non Governmental Organisations, using the same methodology.
- (e) & (f) For the three year period, 2015 to 2017, 49 cases of tiger poaching and 40 cases of tiger body part seizures have been reported by the States. To check such incidents, following steps have been taken by the Government of India / National Tiger Conservation Authority:

1. Measures for strengthening protection and monitoring of tigers:-

- Providing assistance to States under the Centrally Sponsored Scheme of “Project Tiger” for protection, infrastructure and antipoaching operations (including deployment of Tiger Protection Force and Special Tiger Protection Force)

- Providing grant through NTCA for patrolling in tiger rich sensitive forest areas outside tiger reserves
- Alerting the States as and when required
- Disseminating of real time information of backward / forward linkages relating to poachers / wildlife criminals.
- Advising the States for combing forest floor to check snares / traps
- Performing supervisory field visits through the National Tiger Conservation Authority and its regional offices
- Using information technology for improved surveillance (e-Eye system) using thermal cameras
- Launching tiger reserve level monitoring using camera trap to keep a photo ID database of individual tigers
- Preparing a national database of individual tiger photo captures to establish linkage with body parts seized or dead tigers
- Assisting States to deploy local workforce in a big way for protection to complement the efforts of field staff [In all, approximately 25 lakh mandays are generated annually with 50% central assistance amounting to around Rs. 25 crores (excluding matching 50% share given by States) under Project Tiger. Many local tribes constitute such local workforce (besides non-tribals), eg. Baigas, Gonds in Madhya Pradesh, Gonds in Maharashtra, Chenchus in Andhra Pradesh, Sholigas in Karnataka, Gujjars in Uttarakhand and Irulas in Tamil Nadu to name a few].
- Initiative taken for collaboration of National Tiger Conservation Authority and Wildlife Crime Control Bureau towards an online tiger / wildlife crime tracking / reporting system in tiger reserves and to coordinate with INTERPOL for checking trans-border trade of wildlife products.
- Insurance / Corpus Fund for staff of Kaziranga Tiger Reserve.
- Motivating tiger reserve administration / tiger States to ensure conviction of criminals through pursuance of cases in different courts.
- Bilateral co-operation with neighbouring countries like Nepal, Bangladesh and Bhutan besides Russia.
- Sharing of information on seizure of body parts including skin of tigers among tiger range countries to ascertain source area. India has already made a proposal in this regard in CITES CoP-17 in Johannesburg which was agreed by member countries.

2. Security Plan:-

The National Tiger Conservation Authority along with TRAFFIC India had prepared generic guidelines for formulating security plan for each tiger reserve which is operationalized in the overarching Tiger Conservation Plan which is legally mandated under section 38 V of the Wildlife (Protection) Act, 1972.

3. Security Audit:-

The National Tiger Conservation Authority has developed a framework for carrying out the assessment of the security threats and for formulating site specific security plan which is now being carried out in 25 different tiger reserves in Phase-I.

4. M-STrIPES:-

This is an android application which has three distinct modules namely Patrol module, Ecological module and Conflict module. The Patrol module *inter-alia* is a mechanism to ensure accountability of front line staff vis-à-vis antipoaching efforts and is useful for the tiger reserve management to strengthen the protection measures.

ANNEXURE REFERRED TO IN REPLY TO PARTS (a) & (b) OF THE LOK SABHA UNSTARRED QUESTION NO. 2323 ON POPULATION OF TIGERS DUE FOR REPLY ON 09.03.2018**Details of tiger estimation pertaining to tiger landscapes in the country, for the years 2010 and 2014**

State	Tiger Population		Increase / Decrease / Stable
	2010	2014	
<i>Shivalik-Gangetic Plain Landscape Complex</i>			
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
<i>Central Indian Landscape Complex and Eastern Ghats Landscape Complex</i>			
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
<i>Western Ghats Landscape Complex</i>			
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
<i>North Eastern Hills and Brahmaputra Flood Plains</i>			
Assam	143 (113-173)	167	Increase
Arunachal Pradesh	-	28*	Increase
Mizoram	5	3+	Stable
North West Bengal	-	3	**
North East Hills, and Brahmaputra	148 (118-178)	201 (174-212)	Increase
<i>Sunderbans</i>	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 naخال problem

** Tiger estimation was not done in the year 2010

ANNEXURE REFERRED TO IN REPLY TO PARTS (a) & (b) OF THE LOK SABHA UNSTARRED QUESTION NO. 2323 ON POPULATION OF TIGERS DUE FOR REPLY ON 09.03.2018**Population of tigers, reserve-wise, as per Status of Tigers, Co-predators and Prey in India, 2014**

Tiger Reserve	State	Tiger Population	Lower SE Limit	Upper SE Limit
Achanakmar	Chhattisgarh	11	10	12
Anamalai	Tamil Nadu	13	11	14
Bandhavgarh	Madhya Pradesh	63	55	71
Bandipur	Karnataka	120	107	134
Bhadra	Karnataka	22	20	25
Biligiri Ranganatha Temple	Karnataka	68	60	75
Bor	Maharashtra	5	3	6
Buxa*	West Bengal	2	2	2
Corbett	Uttarakhand	215	169	261
Dampa*	Mizoram	3	3	3
Dandeli-Anshi	Karnataka	5	3	6
Dudhwa	Uttar Pradesh	58	46	69
Indravati	Chhattisgarh	12	11	13
Kalakad Mundanthurai	Tamil Nadu	10	9	11
Kanha	Madhya Pradesh	80	71	90
Kaziranga	Assam	103	91	115
Manas	Assam	11	9	12
Melghat	Maharashtra	25	21	30
Mudumalai	Tamil Nadu	89	79	99
Nagarahole	Karnataka	101	90	113
Nagarjunasagar Srisailam	Andhra Pradesh	54	40	67
Namdapha	Arunachal Pradesh	11	5	11
Nameri	Assam	5	4	5
Nawegoan-Nagzira	Maharashtra	7	4	10
Pakke	Arunachal Pradesh	7	6	8
Palamau*	Jharkhand	3	3	3
Panna	Madhya Pradesh	17	17	17
Parambikulam	Kerala	19	17	21
Pench	Madhya Pradesh	43	36	49
Pench	Maharashtra	35	28	42
Periyar	Kerala	20	18	22
Pilibhit	Uttar Pradesh	25	19	30
Ranthambhore	Rajasthan	37	30	41
Sahyadri*	Maharashtra	7	7	7
Sanjay-Dubri	Madhya Pradesh	8	7	10
Sariska	Rajasthan	9	9	9
Sathyamangalam	Tamil Nadu	72	64	80

Satkosia	Odisha	3	2	4
Satpura	Madhya Pradesh	26	22	30
Similipal	Odisha	17	14	19
Sunderban	West Bengal	68	57	86
Tadoba-Andhari	Maharashtra	51	44	58
Udanti-Sitanadi	Chhattisgarh	4	3	4
Valmiki	Bihar	22	17	26
Total		1586	1343	1820

* Minimum number of tigers recorded through scat DNA, in these cases a standard error on their estimate was not possible.
