

GOVERNMENT OF INDIA
MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE

LOK SABHA
UNSTARRED QUESTION NO. 4354
TO BE ANSWERED ON 13.12.2019

Tiger Population

4354. SHRI CHANDRA PRAKASH JOSHI:

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

- (a) whether the number of tigers in the country has registered any decrease during the last five years;
- (b) if so, the details, thereof;
- (c) the number of tigers in the country, State/UT-wise including Rajasthan;
- (d) the details of programmes being implemented by the Government for the conservation of tigers in the country; and
- (e) the number of cases corresponding to the killing of tigers for the purposes of hunting and smuggling during the last three years along with the action taken by the Government thereon?

ANSWER

MINISTER OF STATE IN THE MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE
(SHRI BABUL SUPRIYO)

- (a), (b) & (c) No, the tiger population in India has shown an increase since, the first cycle of the All India Tiger Estimation using the refined methodology in 2006, which was subsequently carried out quadrennially in 2010, 2014 and 2018, details of which are at **Annexure-I**.
- (d) The Government of India has been implementing the ongoing Centrally Sponsored Scheme of Project Tiger which is steered by the National Tiger Conservation Authority wherein technical and financial assistance is provided for several overarching activities as at **Annexure-II**.
- (e) During the last 3 years following number of confirmed tiger poaching and seizures have been reported by the States:

Year	Poaching	Seizure
2016	22	22
2017	29	12
2018	24	10

The following action has been taken by the Government of India to curb poaching 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, Bhutan and 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.

ANNEXURE REFERRED TO IN REPLY TO PARTS (a), (b) & (c) OF THE LOK SABHA UNSTARRED QUESTION NO. 4354 ON TIGER POPULATION DUE FOR REPLY ON 13.12.2019

Details of tiger estimation pertaining to tiger landscapes in the country,
for the years 2006, 2010, 2014 and 2018

State	Tiger Population			
	2006	2010	2014	2018
<i>Shivalik-Gangetic Plain Landscape Complex</i>				
Uttarakhand	178	227	340	442
Uttar Pradesh	109	118	117	173
Bihar	10	8	28	31
Shivalik Gangetic	297	353	485	646
<i>Central Indian Landscape Complex and Eastern Ghats Landscape Complex</i>				
Andhra Pradesh	95	72	68	48
Telangana	-	-	-	26
Chhattisgarh	26	26	46	19
Madhya Pradesh	300	257	308	526
Maharashtra	103	169	190	312
Odisha	45	32	28	28
Rajasthan	32	36	45	69
Jharkhand	-	10	3*	5
Central India	601	601	688	1033
<i>Western Ghats Landscape Complex</i>				
Karnataka	290	300	406	524
Kerala	46	71	136	190
Tamil Nadu	76	163	229	264
Goa	-	-	5	3
Western Ghats	412	534	776	981
<i>North Eastern Hills and Brahmaputra Flood Plains</i>				
Assam	70	143	167	190
Arunachal Pradesh	14	-	28**	29
Mizoram	6	5	3*	0
Nagaland	-	-	-	0
Northern West Bengal	10	-	3*	0
North East Hills, and Brahmaputra	100	148	201	219
<i>Sunderbans</i>	-	70	76	88
TOTAL	1411	1706	2226	2967

* From scat DNA

** From camera trap data and scat DNA

ANNEXURE REFERRED TO IN REPLY TO PART (d) OF THE LOK SABHA UNSTARRED QUESTION NO. 4354 ON TIGER POPULATION DUE FOR REPLY ON 13.12.2019

Several activities are undertaken for tiger conservation under the ongoing Centrally Sponsored Scheme of Project Tiger are as under:-

1. Stepping up protection: (antipoaching squad/Tiger Protection Force deployment)

The antipoaching operations in tiger reserves are site specific. However, the following activities, *inter alia*, form part of the protection strategy in tiger reserves, namely:—

- (a) Raising, arming and deployment of Special Tiger Protection Force.
- (b) Use of information technology in wildlife crime prevention.
- (c) Launching M-STrIPES for field patrolling.
- (d) Deployment of antipoaching squads.
- (e) Establishing and maintenance of existing patrolling camps/chowkis and deployment of camp labourers for patrolling.
- (f) Organising vehicular patrolling by constituting squads (Tiger Protection Force), comprising of field staff, labourers and police/SAF/ex-army personnel, with wireless handset and paraphernalia for apprehending offenders, apart from prescribing a patrolling calendar for the squad.
- (g) Establishing and maintenance of wireless network.
- (h) Organising surprise raids jointly with the local police in railway stations, local trains, bus-stops, buses, catchers and cafeteria.
- (i) Ensuring special site-specific protection measures, during monsoon as ‘Operation Monsoon’ – considering the terrain and accessibility of Protected Areas.
- (j) Deployment of ex-army personnel / home guards.
- (k) Deployment of local work force for patrolling, surveillance of water holes, manning barriers.
- (l) Procurement of arms and ammunition.
- (m) Procurement/maintenance of elephant squads.
- (n) Rewards to informers.
- (o) Legal support for defending court cases.
- (p) Procurement of vehicles, boats.
- (q) Procurement of field gear, night vision device.

2. Deciding inviolate spaces for wildlife and relocation of villagers from core or critical tiger habitats in Tiger Reserves within a timeframe and settlement of rights.

2.1. The Wild Life (Protection) Act, 1972, as well as the Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006, require that rights of people (Scheduled Tribes and other traditional forest dwellers) recognized in forest areas within core and critical tiger or wildlife habitats of tiger reserves or protected areas may be modified and resettled for providing inviolate spaces to tiger or wild animals. This requires payment of compensation (rights settlement in addition to the relocation package offered under the Centrally Sponsored Scheme at present). Chapter IV of the Wild Life (Protection) Act, 1972 (section 24) provides for acquisition of rights in or over the land declared by the State Government under section 18 (for constituting a Sanctuary) or section 35 (for constituting a National Park). Sub-section (2) of section 24 of the Wild Life (Protection) Act, 1972 authorizes the Collector to acquire such land or rights. Therefore, payment of compensation for the immovable property of people forms part of modifying or settling their rights which is a statutory requirement.

2.2. The ongoing study and the analysis of the available research data on tiger ecology indicate that the minimum population of tigresses in breeding age, which are needed to maintain a viable population of 80-100 tigers (in and around core) require an inviolate space of 800-1200 sq. km. Tiger being an “umbrella species”, this will also ensure viable populations of other wild animals (co-predators, prey) and forest, thereby ensuring the ecological viability of the entire area and habitat. Thus, it becomes an ecological imperative to keep the core areas of tiger reserves inviolate for the survival of source populations of tiger and other wild animals.

2.3. The proposed package has following two options, namely:

- (a) **Option I** – Payment of the entire package amount (Rs. 10 lakhs per family) to the family in case the family opts so, without involving any rehabilitation or relocation process by the Forest Department.
- (b) **Option II** – Carrying out relocation or rehabilitation of village from protected area or tiger reserve by the Forest Department.

3. Strengthening of infrastructure within Tiger Reserves.

The following activities, inter alia, would form part of reinforcing the infrastructure of Tiger Reserves (including support to new tiger reserves), namely:—

- (a) Civil Works (staff quarters, family hostels, office improvement, patrolling camp, house keeping buildings, museum, culverts).
- (b) Maintenance, creation and upgradation of road network.
- (c) Maintenance and creation of wireless tower.
- (d) Maintenance and creation of fire watch tower.
- (e) Maintenance and creation of bridges, dams, anicuts.
- (f) Maintenance, creation of firelines and firebreaks.
- (g) Maintenance and creation of earthen ponds.
- (h) Procurement, maintenance of vehicles (Gypsy, Jeep, Truck, Tractor etc.).
- (i) Habitat improvement works.
- (j) Procurement of hardware, software and Geographical Information System (GIS).
- (k) Procurement of compass, range finder, Global Positioning System (GPS), camera traps.
- (l) Procurement of satellite imageries for management planning.
- (m) Map digitization facility for management planning.

4. Habitat improvement and water development.

These, inter alia, may include, weed eradication, removal of gregarious plant growth from grasslands, grass improvement, water retention structures and the like. These initiatives would increase the forage and browse values of the habitat for wild animals.

5. Addressing man-animal conflict (ensuring uniform, timely compensation for human deaths due to wild animals, livestock depredation by carnivores, crop depredation by wild ungulates) (compensation for crop loss is a new component):

This would involve:

- (a) payment of compensation for cattle lifting, death of human beings and crop depredation due to wild animals.
- (b) creation of crop protection structures.
- (c) procurement and deployment of traps, cages to catch problematic animals.
- (d) procurement of tranquilizing equipments, rescue vehicles and drugs.

6. Co-existence agenda in buffer or fringe areas.

The fringe areas around tiger reserve have corridor value, and their ecological sustainability is important to prevent the area from becoming ecological sinks on account of over use of resources and unwise land use. This calls for delineation of buffer zone around a tiger reserve to incorporate such fringe areas so that it can fulfill the following objectives, namely:

- (a) providing ecologically viable livelihood options to local stakeholders for reducing their dependency on forests.
- (b) conserving the forest area through restorative inputs involving local people for providing habitat supplement to wild animals moving out of core areas.

7. Rehabilitation of traditional hunting tribes living around tiger reserves.

There is an urgent need to launch a rehabilitation and development programme for the denotified tribes and tribes involved in traditional hunting, living around tiger reserves and tiger corridors. The following denotified tribes and communities are involved in traditional hunting of wild animals : Behelias, Ambalgars, Badaks, Mongias, Bavariyas, Monglias, Pardhi, Boyas, Kaikads, Karwal Nat, Nirshikaris, Picharis, Valayaras, Yenadis, Chakma, Mizo, Bru, Solung and Nyishi. While this list is not exhaustive, around 5,000 such families are required to be taken up under a welfare programme (forming part of NTCA initiatives) during the Plan period. The rehabilitation and welfare package should be evolved in a site specific, consultative manner with livelihood options, to include : wages for such people towards their deployment in foot patrolling for protecting wildlife, providing agricultural land with irrigation, basic health care, housing and related community welfare inputs and basic education facilities. The experience gained in the past for settling denotified tribes by the salvation army is required to be considered dispassionately while structuring the programme.

8. Research and field equipments.

The All India tiger estimation using the new methodology approved by the Tiger Task Force has resulted in a permanent monitoring protocol for the field units. The Phase-IV, tiger reserve level, would be launched to monitor the source populations of tiger. Further, assistance would be provided for fostering field oriented research and to equip the staff with facilities like Global Positioning System (GPS), camera traps, night vision, range finder and related accessories including hardware and software.

9. Staff development and capacity building.

9.1. This would involve:

- (a) Capacity building and training.
- (b) Providing project allowance and special incentives.
- (c) Specialized training in the use of Geographical Information System (GIS), antipoaching operations.
- (d) Specialized training in jurisprudence and wildlife forensics.
- (e) Study tours for appraisal of good practices in other reserves.
- (f) Dissemination workshops.
- (g) Specialized training in park interpretation.
- (h) Specialized training in management planning.

9.2. The above inputs are extremely important for enhancing the skill of field staff. Several instances of poaching occur for want of specialized training in crime detection and related skills.

10. Mainstreaming wildlife concerns in tiger bearing forests and fostering corridor conservation through restorative strategy involving locals to arrest fragmentation of habitats.

This would involve:

- (a) Redressing man-animal conflict.
- (b) Capturing problematic and aberrant wild animals.
- (c) Monitoring of wild animals.
- (d) Antipoaching operations.
- (e) Habitat improvement measures.

11. Safeguards and Retrofitting measures in the interest of wildlife conservation.

Several tiger reserves are affected on account of heavily used infrastructure like roads, railway tracks etc. The high tension electric lines passing through many reserves cause mortality of wild animals due to electrocution by poachers. In the interest of wild animals several safeguards as well as retrofitting measures may be required, which would be supported on a site-specific basis.

12. Providing basic infrastructure. The expenditure for consultancy, field visits by expert teams, all India tiger estimation and continuous monitoring of tigers (Phase-IV), support for monitoring tigers outside tiger reserves through National Tiger Conservation Authority grant, developing a National Repository of Camera Trap Photo Database of tiger, strengthening of National Tiger Conservation Authority at the Center and Regional Offices, besides establishing a monitoring lab.

13. Independent monitoring and evaluation of tiger reserves.

The second round of independent monitoring has been completed using globally accepted indicators. This would be further refined and continued.

14. Establishment and development of new tiger reserves.

‘Project Tiger’ has a holistic ecosystem approach. Though the focus is on the flagship species ‘tiger’, the project strives to maintain the stability of ecosystem by fostering other trophic levels in the food chain. This is essential to ensure an ecologically viable population of tiger, which is at the ‘apex’ of the ecological food chain. The community pressures on forests are ever on the increase in developing countries and India is no exception. As a sequel, the tiger habitat has become fragile and weak at several places, warranting a focused conservation approach. Our protected areas and tiger reserves are analogous to “islands” in an ocean of the other-use patterns. Empirical evidences from ‘island biogeography’ indicate that “isolated” reserves lose their species rapidly owing to ‘ecological insularization’. Further, apart from fragmentation, the situation is aggravated by degraded forest cover owing to biotic pressure, dislocated prey – predator ratio, absence of effective measures to ensure the desired level of protection and lack of eco developmental initiatives for the fringe dwelling stake holders to reduce their dependency on forest resources. Since ‘Project Tiger’ would go a long way in redressing the above situation, the Steering Committee of Project Tiger in its meeting held on the 23rd January, 2003 recommended inclusion of new tiger reserve areas so as to increase the total area of ‘Project Tiger’ from existing 37761 sq. kms. to 50,000 sq. kms. during the Tenth Plan period.

15. Provision of Project Allowance to staff of Project Tiger.

The tiger States would be supported (100%) for Project Allowance to staff of tiger reserves.

16. Staff welfare activities.

Staff welfare inputs like residential accommodation for the children of frontline staff in nearby towns or villages, supply of kerosene, medicine, field kit, mosquito net, torch and the like would be supported.

17. Fostering Tourism or Ecotourism in tiger reserves.

‘Tourism’ in the context of Tiger Reserves is contemplated as “ecotourism”, which needs to be ecologically sustainable nature-tourism. This is emerging as an important component of tourism industry. It is distinct from ‘mass tourism’, having sustainable, equitable, community based effort for improving the living standards of local, host communities living on the fringes of tiger reserves. Ecotourism is proposed to be fostered under ‘Project Tiger’ to benefit the host community in accordance with tiger reserve specific Tourism Plan forming part of the Tiger Conservation Plan, subject to regulation as per carrying capacity, with a focus on buffer areas. Since, tourism has been happening in areas of national parks and wildlife sanctuaries which are now designated as core or critical tiger habitat, regulated low impact tourism (visitation) would be allowed in such areas subject to site specific carrying capacity. However, no new tourism infrastructure should be permitted in such core and critical tiger habitats. Further, the buffer forest areas should also be developed as wildlife habitats with the active involvement of local people living in such areas. This would provide extended habitat to tiger population for its life cycle dynamics, besides benefitting local people from ecotourism activities in such areas while reducing the resource dependency of people on core or critical tiger habitats and human-tiger interface conflicts. The opportunities for stakeholders would include management of low cost accommodation for tourists, providing guide services, providing sale outlets, managing excursions, organizing ethnic dances and the like.
