

# **ANNUAL REPORT**

**(2012-13)**



**NATIONAL TIGER CONSERVATION AUTHORITY**

**MINISTRY OF ENVIRONMENT, FORESTS &  
CLIMATE CHANGE**

**GOVERNMENT OF INDIA**

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## FORM – A

# NATIONAL TIGER CONSERVATION AUTHORITY ANNUAL REPORT FOR THE FINANCIAL YEAR APRIL, 2012 TO MARCH, 2013 (Fifth Annual Report of the NTCA after its constitution)

## CHAPTER I

### Introduction

The National Tiger Conservation Authority is a statutory body under the Ministry of Environment and Forests, constituted under enabling provisions of the Wildlife (Protection) Act, 1972, as amended in 2006, for strengthening tiger conservation, as per powers and functions assigned to it under the said Act.

The National Tiger Conservation Authority has been fulfilling its mandate within the ambit of the Wildlife (Protection) Act, 1972 for strengthening tiger conservation in the country by retaining an oversight through advisories/normative guidelines, based on appraisal of tiger status; ongoing conservation initiatives and recommendations of specially constituted Committees. 'Project Tiger' is a Centrally Sponsored Scheme of the Ministry of Environment and Forests, providing funding support to tiger range States, for in-situ conservation of tigers in designated tiger reserves, and has put the endangered tiger on an assured path of recovery by saving it from extinction, as revealed by the recent findings of the All India tiger estimation using the refined methodology.

### **Objectives of tiger conservation:-**

To ensure maintenance of a viable population of Tigers in India for scientific, economic, aesthetic, cultural and ecological values, and to preserve for all times, areas of biological importance as a national heritage for the benefit, education and enjoyment of the people.

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## CHAPTER II

### Constitution of the National Tiger Conservation Authority including changes therein and its functions

The National Tiger Conservation Authority was constituted with effect from 4.09.2006, for strengthening tiger conservation by, inter alia, ensuring normative standards in tiger reserve management, preparation of reserve specific tiger conservation plan, laying down annual / audit report before Parliament, constituting State level Steering Committees under the Chairmanship of Chief Ministers and establishment of Tiger Conservation Foundation. List of the NTCA members, constituted vide Gazette Notification No. 15-25/09 NTCA dated 21<sup>st</sup> September, 2012 and 25<sup>th</sup> February, 2013 are as under:

- |     |  |                    |
|-----|--|--------------------|
| 1.  | The Minister in charge of the Ministry of Environment and Forests  | - Chairman         |
| 2.  | The Minister of State for Environment and Forests (Vacant)   | - Vice-Chairperson |
| 3.  | Smt. Maneka Gandhi, MP (Lok Sabha)   | - Member           |
| 4.  | Shri Sajjan Verma, MP (Lok Sabha)  | - Member           |
| 5.  | Shri P. Bhattacharya, MP (Rajya Sabha)   | - Member           |
| 6.  | Shri P.K. Sen, B-II/2275, Vasant Kunj, New Delhi-110070.   | - Member           |
| 7.  | Dr. K. Ullas Karanth, Centre for Wildlife Studies, 1669, 31 <sup>st</sup> Cross, 16 <sup>th</sup> Main, Banashankari 2 <sup>nd</sup> Stage, Bangalore, Karnataka-560070. | - Member           |
| 8.  | Shri Brijendra Singh, 28, Sunder Nagar, New Delhi-110003.  | - Member           |
| 9.  | Shri H.S. Panwar, 208, Kanchanjanga Tower, GH-18, Sector-56, Gurgaon-122011.   | - Member           |
| 10. | Dr. M.K. Ranjitsinh, Krishnasaar, No. 5, Tiger Lane, W-6, C Lane, Sainik Farm, New Delhi-110062.   | - Member           |
| 11. | Dr. A.J.T. Johnsingh, 101, Mangolia, Esteem Gardenia, Sahkaar Nagar Bangalore-560092.  | - Member           |
| 12. | Shri T. Rajappa, House No. 8, Shetty Hally Punarwasthi Kendra, Post Nayralakuppe, Hunsur Taluk, Dist. Mysore, Karnataka-571105.  | - Member           |
| 13. | Shri A.P. Shibu, Kurichiyad House, Chethalayam House, Sulthan Batheri, Wayanad District, Kerala-571105.  | - Member           |
| 14. | Secretary, Ministry of Environment and Forests   | - Member           |
| 15. | Director General of Forests & Special Secretary, Ministry of Environment & Forests   | - Member           |
| 16. | Secretary, Ministry of Tribal Affairs  | - Member           |
| 17. | Secretary, Ministry of Social Justice and Empowerment  | - Member           |
| 18. | Chairperson, National Commission for the Scheduled Tribes  | - Member           |
| 19. | Chairperson, National Commission for the Scheduled Castes  | - Member           |
| 20. | Secretary, Ministry of Panchayati Raj  | - Member           |
| 21. | Director, Wildlife Preservation, Ministry of Environment & Forests   | - Member           |
| 22. | Chief Wildlife Warden, Assam   | - Member           |
| 23. | Chief Wildlife Warden, Jharkhand   | - Member           |
| 24. | Chief Wildlife Warden, Kerala  | - Member           |
| 25. | Chief Wildlife Warden, Madhya Pradesh  | - Member           |
| 26. | Chief Wildlife Warden, Rajasthan   | - Member           |
| 27. | Chief Wildlife Warden, Tamil Nadu  | - Member           |
| 28. | Joint Secretary and Legislative Counsel<br>Legislative Department, Ministry of Law and Justice   | - Member           |
| 29. | Additional Director General (Project Tiger),<br>Ministry of Environment and Forests  | - Member Secretary |

## Functions of the NTCA:

Powers and functions of the National Tiger Conservation Authority as prescribed under section 38O of the Wildlife (Protection) Act, 1972, as amended in 2006 are as under:-

- (a) to approve the tiger conservation plan prepared by the State Government under sub-section (3) of section 38V of this Act;
- (b) evaluate and assess various aspects of sustainable ecology and disallow any ecologically unsustainable land use such as, mining; industry and other projects within the tiger reserves;
- (c) lay down normative standards for tourism activities and guidelines for project tiger from time to time for tiger conservation in the buffer and core area of tiger reserves and ensure their due compliance;
- (d) provide for management focus and measures for addressing conflicts of men and wild animal and to emphasize on co-existence in forest areas outside the National Parks, sanctuaries or tiger reserve, in the working plan code;
- (e) provide information on protection measures including future conservation plan, estimation of population of tiger and its natural prey species, status of habitats, disease surveillance, mortality survey, patrolling, reports on untoward happenings and such other management aspects as it may deem fit including future plan conservation;
- (f) approve, co-ordinate research and monitoring on tiger, co-predators, prey habitat, related ecological and socio-economic parameters and their evaluation;
- (g) ensure that the tiger reserves and areas linking one protected area or tiger reserve with another protected area or tiger reserve are not diverted for ecologically unsustainable uses, except in public interest and with the approval of the National Board for Wild Life and on the advice of the Tiger Conservation Authority;
- (h) facilitate and support the tiger reserve management in the State for biodiversity conservation initiatives through eco-development and people's participation as per approved management plans and to support similar initiatives in adjoining areas consistent with the Central and State laws;
- (i) ensure critical support including scientific, information technology and legal support for better implementation of the tiger conservation plan;
- (j) facilitate ongoing capacity building programme for skill development of officers and staff of tiger reserves, and
- (k) perform such other functions as may be necessary to carry out the purposes of this Act with regard to conservation of tigers and their habitat.

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## CHAPTER III

### Meetings of the National Tiger Conservation Authority and important decisions taken therein

#### **1. Decisions taken in the eighth meeting of the National Tiger Conservation Authority held under the Chairmanship of Smt. Jayanthi Natarajan, Minister for Environment and Forests on the 12<sup>th</sup> October, 2012, in Room No. 403, Ministry of Environment and Forests, New Delhi**

The eighth meeting of the National Tiger Conservation Authority (NTCA) was held under the Chairmanship of Smt. Jayanthi Natarajan, Minister for Environment and Forests on the 12<sup>th</sup> of October, 2012 in Room No. 403, Ministry of Environment and Forests, Paryavaran Bhawan, New Delhi.

The Chairperson welcomed the members and initiated the deliberations. It was stated that the meeting has been called at a short notice for apprising the NTCA regarding the comprehensive set of guidelines under section 38O 1(c) of the Wildlife (Protection) Act, 1972 for 'Project Tiger and Tourism in Tiger Reserves', which has been submitted to the Hon'ble Supreme Court of India in an ongoing Public Interest Litigation. While recalling the interim order of the Hon'ble Apex Court for notifying the said guidelines before 16<sup>th</sup> October, 2012, the Chairperson solicited the approval of the Authority on the same, which has been listed as an Agenda Item No. 2.

The Chairperson congratulated the NTCA for their ongoing good work and innovation, while recalling her recent visit to the Kaziranga Tiger Reserve. The Members were informed that a grant of Rs. 1 crore is being provided to Kaziranga for boat procurement (4 speed boats and 5 country boats) to address the flood related problems, besides providing support under Project Tiger for a 24X7 'e-surveillance' on the lines of the initiatives taken in Corbett Tiger Reserve. Further, the said reserve would also be supported under Project Tiger for taking up a pilot initiative to use small, unmanned aircraft towards surveillance to step up protection, besides addressing livelihood and human-wildlife interface issues in the peripheral / buffer areas of the tiger reserve.

The Chairperson also apprised the Authority regarding the recent review of Phase-IV tiger reserve level monitoring done with the Field Directors of Tiger Reserves, while expressing her appreciation for the initiatives taken by Field Directors. The recent approval of the competent authority on amendments to the Wildlife (Protection) Act for strengthening the CITES implementation, besides incorporating amendments for consultation with Panchayati Raj Institutions.

The Chairperson stated that the meeting has been convened at a short notice to comply with the order of the Hon'ble Apex Court, and in the near future the Authority would meet again for a longer duration, preferably in a tiger reserve.

This was followed by an introduction of the newly appointed non-official experts / members and discussion on the agenda items as detailed below:

#### **Agenda Item No. 1**

#### **Confirmation of minutes of the seventh meeting of the NTCA**

The Member Secretary (NTCA) apprised the members on the action taken on the decisions taken in the seventh meeting of the NTCA. The Authority was informed that the Ministry of Finance has not accorded approval for procurement of vehicles as well as creation of posts for Multi Tasking Staff as approved by the NTCA. The progress made on the creation of a national

repository of tiger camera trap photo database and standardizing its protocol was also appraised, besides the central assistance provided under Project Tiger for village relocation from the core / critical tiger habitat of Ranthambhore Tiger Reserve (Keladevi area).

Shri Brijendra Singh, Member, NTCA stated that there has been a downsizing of budgetary allocation for Project Tiger, while highlighting the need for enhanced funding support. The Secretary, Environment and Forests informed that there has been no curtailment of budgetary allocation, but the available allocation to the Ministry has been proportionately allocated. Further, savings within the Ministry amounting to around Rs. 94 crores would be made available for tiger conservation.

*The NTCA confirmed the minutes of its seventh meeting.*

### Agenda Item No. 2

#### **Appraisal / approval of Comprehensive Guidelines under section 38O (c) of the Wildlife (Protection) Act, 1972 for Project Tiger and Tourism in Tiger Reserves**

The MS (NTCA) made a presentation on the comprehensive guidelines under section 38O 1(c) of the Wildlife (Protection) Act, 1972 for Project Tiger and Tourism in Tiger Reserves, while highlighting its salient features:

- Earmarking a tourism zone within core area (maximum 20% but not exceeding the present usage)
- Preparation of tourism plan as part of TCP by States
- Computation of carrying capacity (reserve wise)
- Intervention for inflating animal abundance in tourism areas prohibited
- Provision for constituting Local Advisory Committee by States
- Preparation of State level tourism / ecotourism strategy and review by Steering Committee in the State (within one year)
- Recycling of gate receipts
- No new tourism infrastructure in core and phasing out of existing ones in a time frame to be decided by LAC
- Monitoring ecologically sensitive areas around TRs
- Giving priority to forest dwellers in ecotourism
- Tourism plan should include temple tourism etc. in TRs
- Identifying zone of influence by LAC to ensure environmental friendly norms
- Buffer area to be fostered for ecotourism to benefit local people
- Tourism should be under the overall control of TCF

#### Notable Points:

- Use of only 20% core area for tourism (national average of ongoing tourism in most visited TRs = 20%, with no deleterious effect on tiger density as per empirical data)
- 'Inviolable' interpreted for the core areas to mean : that which does not violate tiger conservation, such activities, strictly regulated still leaving the core area 'inviolable' in the context of tiger biology
- Recycling of gate receipts
- Contributions from lodge owners to benefit conservation and local people (slab structure suggested : Rs. 500-3000 per room per month during the season)
- Temple boards to share revenue with local communities through Gram Sabha (minimum 10% of gross revenue)
- State to prepare tourism plan, compute carrying capacity, create LAC, prepare its strategy, conduct review by Steering Committee
- More delegation to States with an oversight by NTCA



*The NTCA approved the comprehensive guidelines under section 380 1(c) of the Wildlife (Protection) Act, 1972 for Project Tiger and Tourism in Tiger Reserves.*

A copy of the said guidelines is at **Annexure-A** (Gazette notification bilingual).

**Agenda Item No. 3**

Approval of budget / expenditure schedules for the year 2011-12 and revised schedule of 2010-11 (as suggested by CAG)

*The NTCA approved and ratified the following:*

- *Ratify / approve the form of financial statements together with balance sheet, income and expenditure account, receipts and payment statements as at Annexure-II for the year 2010-11.*
- *Ratify / approve the form of financial statements together with balance sheet, income and expenditure account, receipts and payment statements as at Annexure-III for the year 2011-12.*
- *Approve the allocation of Rs. 14.30 crore to the NTCA for the year 2010-11, and the expenditure incurred therein leaving an unutilized amount of Rs.7,25,73,818/-.*
- *Approve the allocation of Rs. 14.71 crores to the NTCA for the financial year 2011-12.*

Shri Brijendra Singh, Member, NTCA stated that the NTCA has done a good job in framing the comprehensive set of guidelines on Project Tiger and Tourism in Tiger Reserves.

The Chairperson wrapped up the discussion while thanking the members. She also reiterated that the Authority would meet for a longer duration preferably in a tiger reserve.

The meeting ended with a vote of thanks to the Chair and Members.

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## CHAPTER IV

### Committee constituted by the National Tiger Conservation Authority

Details of Committees constituted by the National Tiger Conservation Authority during 2012-13 are as under:-

**I.** With the approval of the competent authority, the Technical Committee of the National Tiger Conservation Authority is re-constituted as below:

(1)	Member Secretary, National Tiger Conservation Authority, Ministry of Environment and Forests	Chairman
(2)	Director (IFD), Ministry of Environment and Forests	Member
(3)	Director, Wildlife Institute of India, Dehradun	Member
(4)	Shri Brijendra Singh, Expert Member, National Tiger Conservation Authority	Member
(5)	Shri P.K. Sen, Expert Member, National Tiger Conservation Authority	Member
(6)	Chief Wildlife Warden, Assam	Member
(7)	Chief Wildlife Warden, Rajasthan	Member
(8)	Inspector General, National Tiger Conservation Authority	Member
(9)	Deputy Inspector General, National Tiger Conservation Authority	Convener

2. The term period the said Committee is for three years upto 18<sup>th</sup> September, 2015

3. The mandate/function of the NTCA Technical Committee is as below:

- (i) to approve proposals for release of financial assistance to various tiger reserves.
- (ii) to approve proposals for research, training, workshops and meetings of the NTCA.
- (iii) to approve proposals for constituting monitoring committees and framing of parameters for monitoring.
- (iv) to review, oversee and implement all India estimation of tiger, co-predators and prey animals, apart from monitoring habitat status.
- (v) any other function that may be assigned to it by the NTCA.

**II.** With the approval of the competent authority, the Administrative Committee of the National Tiger Conservation Authority is re-constituted as below:

(1)	Member Secretary, National Tiger Conservation Authority, Ministry of Environment and Forests	Chairman
(2)	Financial Advisor, Ministry of Environment and Forests	Member
(3)	Director, Wildlife Institute of India, Dehradun	Member
(4)	Shri H.S. Panwar, Expert Member, National Tiger Conservation Authority	Member
(5)	Dr. A.J.T. Johnsingh, Expert Member, National Tiger Conservation Authority	Member
(6)	Chief Wildlife Warden, Madhya Pradesh	Member
(7)	Chief Wildlife Warden, Kerala	Member
(8)	Inspector General, National Tiger Conservation Authority	Member
(9)	Deputy Inspector General, National Tiger Conservation Authority	Convener

2. The term period the said Committee is for three years upto 18<sup>th</sup> September, 2015.

3. The mandate/function of the NTCA Administrative Committee is as below:

- (i) to screen and approve the proposals regarding creation of posts and upgradation of existing posts in the Authority.

- (ii) to approve proposals for awarding consultancies and contract appointments to 'Group-A' posts.
- (iii) to approve the annual budget of the NTCA.
- (iv) to approve any other matter referred to it by the NTCA.

III. With the approval of the competent authority, a Committee for the proposal of diversion of 76.50 ha. of forest land for iron ore mining in East Bhanupratapur Forest Division in Kanker district of Chhattisgarh in favour of M/s Bajrang Metallics & Power Limited is constituted, as below:

- (i) Shri D.P. Bankhwal, IGF, NTCA Regional Office, Guwahati
- (ii) Shri C.M. Shivakumar, AIG, NTCA Regional Office, Bengaluru
- (iii) A representative from the Wildlife Institute of India, Dehradun

2. The terms of reference of the Committee are as below:

- (i) To inspect the site w.r.t. tiger presence and its habitat use/movement from nearby areas, and submit its report within 10 days.

IV. With the approval of the competent authority, a Committee is hereby constituted for ascertaining the factual status vis-à-vis the issues raised in the print media coverage, especially those relating to large scale land procurement. The composition of the said Committee is as under:-

- (i) Shri Brijendra Singh, Member, NBWL/NTCA/Honorary Wildlife Warden, Corbett
- (ii) Dr. Rajesh Gopal, APCCF & MS (NTCA) – Member Convener

2. The terms of reference of the team are as below:

- (i) To ascertain the factual status vis-à-vis the issues raised in the print media coverage, especially those relating to large scale land procurement

3. The said Committee would submit its broad findings within a fortnight after field visit.

V. With the approval of the competent authority, Appraisal Teams are hereby constituted for appraisal of 40 tiger reserves assisted under the Centrally Sponsored Scheme of Project Tiger. The composition of the said teams are as under:-

A. Shivalik-Gangetic Plan Landscape Complex:  
(Corbett, Dudhwa, Valmiki, Palamau Tiger Reserves)

Appraisal Team:

- (1) Mr. R. Sundaraju, CWLW (Retd.), Tamil Nadu.
- (2) Mr. P.K. Sen, Member, NTCA
- (3) Mr. P.R.S. Prabhakaran, Social Worker
- (4) Dr. Jyoti Das, Consultant, NTCA Regional Office, Guwahati.

B. Central Indian Landscape Complex (Part):  
(Panna, Satpura, Sanjay-Dubri, Kanha, Bandhavgarh, Pench, Achanakmar, Udanti-Sitanadi, Indravati Tiger Reserves)

Appraisal Team:

- (1) Mr. B.K. Patnaik, CWLW (Retd.), Uttar Pradesh.
- (2) Dr. Aparajita Dutta, Member, NTCA, Bangalore.
- (3) Mr. S.T. Kaniraj, Social Worker
- (4) Mr. Rajeev Sharma, AIG, NTCA

C. Central Indian Landscape Complex (Part):  
(Tadoba, Pench, Melghat, Ranthambhore, Sariska Tiger Reserves)

Appraisal Team:

- (1) Mr. D.N.S. Suman, CWLW (Retd.), Uttar Pradesh.
- (2) Shri Prakash Murlidhar Amte, Member, NTCA
- (3) Mr. M. Rama Krishna, Social Worker
- (4) Mr. Sanjay Kumar, AIG, NTCA

D. Eastern Ghat and North Eastern Hills:  
(Similipal, Satkosia, Nagarjunasagar Srisailem, Sundarbans, Buxa, Kaziranga, Manas, Nameri, Dampa, Pakke, Namdapha Tiger Reserves)

Appraisal Team:

- (1) Dr. K. Nayak, CCF (WL) (Retd.), Madhya Pradesh.
- (2) Dr. Urmila Pingle, Member, NTCA, Hyderabad.
- (3) Mr. A. Gunasekaran, Social Worker
- (4) Mr. Ravikiran S. Govekar, AIG, NTCA Regional Office, Nagpur.

E. Western Ghat Landscape:  
(Sahyadri, BRT, Nagarahole, Bandipur, Dandeli-Anshi, Periyar, Parambikulam, Mudumalai, Anamalai, Kalakad Mundanthurai Tiger Reserves)

Appraisal Team:

- (1) Mr. Surajit Datta, CCF (WL) (Retd.), Assam.
- (2) Dr. M. Firoz Ahmad, Member, NTCA
- (3) Mr. C.N. Govindarajan, Social Worker
- (4) Mr. C.M. Shivakumar, AIG, NTCA Regional Office, Bangalore

2. The terms of reference of the team are as below:

- (i) Appraisal of field initiatives vis-à-vis the funding assistance provided to Tiger Reserves under the ongoing Centrally Sponsored Scheme of Project Tiger during the XI Plan period.
- (ii) Suggestions for improvement in the field delivery under the Centrally Sponsored Scheme of Project Tiger.

3. The Appraisal Team would submit their report within 6 months.

VI. With the approval of the competent authority, a Committee is hereby constituted for District Planning vis-à-vis tiger conservation in tiger range districts. The composition of the said Committee is as under:-

1. Dr. V.B. Mathur, Dean, Wildlife Institute of India, Dehradun
2. Dr. M. Firoz Ahmed, Member, NTCA

3. Dr. Biswajit Banerjee, Planning Commission
4. Director / AIG, Ministry of Rural Development
5. Shri Mahesh Babu, MD, ILF&S
6. Shri A.K. Shrivastava, Director, Ministry of Tribal Affairs
7. Shri R. Sundaraju, CWLW (Retd.), Tamil Nadu
8. Shri B.K. Patnaik, CWLW (Retd.), Uttar Pradesh
9. Shri S. Dhena, Social Worker
10. Shri Thilagarajan U., Social Worker
11. A representative of the Indian Institute of Forest Management, Bhopal
12. Shri S.P. Yadav, DIG (NTCA) – **Member Convener**

2. The terms of reference of the team are as below:

- (i) To suggest a process for factoring in tiger concerns in the DISTRICT PLANNING in tiger range districts.
- (ii) To come out with generic prescriptions vis-à-vis the 2010 Country level tiger estimation for district plan for mainstreaming tiger conservation in each tiger range district.
- (iii) To organize four regional sensitization workshops for stakeholders and line departments.

3. The Committee would submit its report within 6 months to the NTCA.

VII. With the approval of the competent authority, a Committee is hereby constituted for assessing the reintroduction of tigers in the Madhav National Park, Shivpuri, Madhya Pradesh. The composition of the said Committee is as under:-

- (i) Shri P.K. Sen, Member, NTCA
- (ii) Shri Qamar Qureshi, Scientist, WII, Dehradun
- (iii) Dr. H.S. Negi, DIG (NTCA) – **Member Convener**

2. The terms of reference of the team are as below:

- (i) To assess the Madhav National Park, Shivpuri, Madhya Pradesh with respect to tiger reintroduction.

3. The said Committee would submit its report within a period of one month.

VIII. The Local Purchase Committee of the National Tiger Conservation Authority is reconstituted, with immediate effect and until further orders, consisting of the following:

- (i) Shri S.R.V. Murthy, Deputy Director, WCCB/Northern Region
- (ii) Shri Sanjay Kumar, AIG (NTCA)
- (iii) Shri Rajeev Sharma, AIG (NTCA)
- (iv) Shri S.P. Yadav, DIG (NTCA)

IX. With the approval of the competent authority, a Committee for the proposal of Kotri-Chechat Limestone (Building Stone) Mine (M.L. No. 19/93) of M/s Abdul Sattar S/o Shri Abdul Kareem Village Kotri Chechat District Kota, Rajasthan (within 10 kms of Mukandra NP / Dara Sanctuary) is constituted, as below:

- (i) Dr. Divyabhanusinh Chavda
- (ii) Shri Sanjay Kumar, AIG (NTCA)

2. The terms of reference of the Committee are as below:

- (i) To inspect the site and submit its report within one month.

X. With the approval of the competent authority, a Committee is constituted hereby for examining the social dynamics of the reintroduced tigers in the Panna Tiger reserve, as under:-

- (i) Shri C.K. Patil, CCF (WL), Bhopal - Member
- (ii) Dr. K. Ramesh, Scientist, WII - Member
- (iii) Dr. H.S. Negi, IGF (NTCA) - Member Convener

2. The terms of reference of the Committee are as below:

- (i) To examine the social dynamics of the reintroduced tigers in the Panna Tiger Reserve.
- (ii) Status of movement of tigers (straying / dispersal) outside the Tiger Reserve.

3. The Committee would submit its report to the NTCA within 30 days from the date of issue of an O.M. in this regard.

XI. With the approval of the competent authority, a Committee is constituted as below:

- (i) Shri Sanjay Mohan, APCCF, Project Tiger, Karnataka
- (ii) Shri G.P. Verma, CF (WL), Bhopal
- (iii) Shri Sanjay Kumar, AIG (NTCA)

2. The terms of reference of the above Committee are as follows:

- (i) To make a site visit and appraisal of the proposed project area vis-à-vis Sundarbans Tiger Reserve and interventions supported under the Centrally Sponsored Scheme of Project Tiger, besides delineation of the eco-sensitive zone.
- (ii) Recommendations to ensure that the proposed project is complementary to tiger conservation in the area.
- (iii) The Committee would be required to submit its report within one month after the issues of this O.M.

XII. With the approval of the competent authority, following teams are hereby constituted for appraisal of tiger mortality in five States, as under:-

**A. Assam**

- (i) Shri D.P. Bankhwal, IGF, NTCA Regional Office, Guwahati
- (ii) Regional Deputy Director, WCCB, Eastern Zone

**B. Uttarakhand**

- (i) Shri Sanjay Kumar, AIG (NTCA-HQ)
- (ii) Regional Deputy Director, WCCB, Northern Region

**C. Madhya Pradesh**

- (i) Shri Ravikiran S. Govekar, AIG, NTCA Regional Office, Nagpur
- (ii) Regional Deputy Director, WCCB, Central Zone, Jabalpur

**D. Maharashtra**

- (i) Shri Rajeev Sharma, AIG (NTCA-HQ)
- (ii) Regional Deputy Director, WCCB, Western Zone

**E. Karnataka**

- (i) Shri C.M. Shivakumar, AIG, NTCA Regional Office, Bangalore.
- (ii) Regional Deputy Director, WCCB, Southern Zone

2. The terms of reference of above teams are as below:

- (i) Appraisal of tiger death cases, and action taken by the State authorities towards prosecution, besides identifying the backward / forward linkages leading to crime.
- (ii) Present status of monitoring / field protection in tiger reserves and forest divisions having tiger occupancy.
- (iii) Present status of monitoring / supervision at higher levels by the State authorities in the context of tiger.
- (iv) Appraisal of pendency relating to payment of ex-gratia / compensation for livestock depredation to avoid revenge killings.
- (v) Compliance status with respect to advisories issued by the NTCA towards field protection.
- (vi) Appraisal of tiger offence cases pending in the courts of law.
- (vii) The teams would be required to submit their report within a fortnight from the date of issue of OM in this regard.

**XIII.** With approval of the competent authority, a fact finding team, to ascertain the factual status leading to elimination of a tiger by the Forest Department on 2.12.2012 in Waynad District, Kerala, is constituted as below:-

- (i) Shri Sanjay Kumar, AIG (NTCA), New Delhi.
- (ii) Shri Ravikiran S. Govekar, AIG, NTCA Regional Office, Nagpur
- (iii) Shri C.M. Shivakumar, AIG, NTCA Regional Office, Bengaluru

2. The Terms of Reference of the said team are as below:

- (i) to ascertain the factual status leading to elimination of tiger by Forest Department on 2.12.2012 in Waynad District, Kerala, vis-à-vis advisories of the National Tiger Conservation Authority and provisions contained in the Wildlife (Protection) Act, 1972.

3. The team would submit its report within 3 days.

**XIV.** With the approval of the competent authority, the following Committees have been constituted for monitoring of Village Relocation as indicated below:

S. No.	States (for monitoring by the Committees)	Name of Experts
1	Tamil Nadu, Karnataka and Maharashtra	1. Shri R. Sundaraju, Chief Wildlife Warden (Retd.), Tamil Nadu 2. A social scientist from Tamil Nadu Agricultural University, Coimbatore 3. A representative of Wildlife Trust of India (WTI)

		4. A nominee from Wildlife Institute of India (WII)
2	Madhya Pradesh, Chhattisgarh and Orissa	1 Shri B. K. Patnaik, PCCF(WL) (Retd.), Uttar Pradesh 2 Shri Ujjawal Sharma, social scientist from India Institute of Forest Management (IIFM), Bhopal 3 A representative from WWF 4 A nominee from Wildlife Institute of India (WII)
3.	Rajasthan and Mizoram	1. Dr. A.J.T. Johnsingh (Nature Conservation Foundation, Mysore) 2. Dr. M. Firoz Ahmad (Aaranyak) 3. A social scientist from North Eastern Hill University, Shillong 4. A nominee from Wildlife Institute of India (WII)

2. The terms of reference of the above Committees are as below:

a. To monitor actual progress on field implementation/relocation of families vis-à-vis the Wild Life (Protection) Act, 1972; the Schedules Tribes and Other Traditional Forests Dwellers (Recognition of Forest Rights) Act, 2006; and village relocation guidelines issued in this regard from the NTCA including *inter-alia*

- (i) Examining the number of families identified for relocation vis-à-vis the cut-off dates.
- (ii) Assessing hand holding by forest department and/or NGO
- (iii) Examining the community development plan in place, in case of option
- (iv) Appraisal regarding participation of relocated villagers, especially the womenfolk, in decision making process
- (v) Examining the extent to which the inviolate space, the prime motive behind village relocation, has been realized vis-à-vis forest resource dependency
- (vi) Suggesting ecological/social studies, in keeping with above mentioned objectives

b. Examining the shortfalls/complaints from the relocated people, if any, and redressal thereof.

c. Assessing the compliance of recommendations made by the earlier committee, constituted for this purpose.

d. Making suggestions for improvement.

e. The said committees shall submit their reports within six months.

**XV.** With the approval of the competent authority, a Committee is hereby constituted for site appraisal before taking a final view from the point of view of tiger conservation vis-à-vis diversion of 8 ha. forest land for hydro-electric project in Chalakkudy Basin Stage-II Anakakayam Small Hydro-Electric Scheme, Kerala, falling under buffer area of the Parambikulam Tiger Reserve. The composition of the said Committee is as under:-

- (i) Mr. Sundaraju, Chief Wildlife Warden (Retd.), Tamil Nadu.
- (ii) Dr. H.S. Negi, DIG (NTCA), New Delhi.
- (iii) Mr. C.M. Shivakumar, AIG (NTCA), NTCA Regional Office, Bangalore.

2. The terms of reference of the Committee are as below:

(i) Site appraisal before taking a final view from the point of view of tiger conservation vis-à-vis forest land diversion.

(ii) The Committee would submit its report within 30 days.



**XVI.** With the approval of the competent authority, a Committee has been constituted for appraisal of the implementation of the Master Plan for development of Sabrimala. The composition of the said Committee is as under :

- (i) Shri Rajeev Sharma, AIG (NTCA), New Delhi.
- (ii) Shri C.M. Shivakumar, AIG, Regional Office of NTCA, Bangalore.
- (iii) One officer to be nominated by the MoEF Regional Office, Bangalore.

2. The terms of reference of the said Committee are as below:

- (i) Appraisal of the implementation of the Master Plan for development of Sabrimala.
- (ii) The Committee should submit its report within 15 days.

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## CHAPTER V

### Monitoring and Evaluation

“Project Tiger” was launched in April, 1973 with the objective “to ensure maintenance of a viable population of tigers in India for scientific, economic, aesthetic, cultural and ecological values, and to preserve for all times, areas of biological importance as a national heritage for the benefit, education and enjoyment of the people”.

The Project has been successfully implemented, and at present there are 42 tiger reserves in 17 States, covering an area of 65283.09 sq.km. (core/critical tiger habitat and buffer/peripheral areas).

Project Tiger is an ongoing Centrally Sponsored Scheme. Conservation of endangered species and their habitat, strengthening and enhancing the Protected Area Network, control of poaching, monitoring, research and ensuring people’s participation in wildlife conservation have been accorded high priority in the National Wildlife Action Plan and the Wildlife Conservation Strategy, 2002.

Based on the recommendations of the NBWL, chaired by the Prime Minister, a Task Force was set up in 2005 to look into the problems of tiger conservation in the country and to suggest measures for improvement. To implement the recommendations of the said Task Force, the Wildlife (Protection) Act, 1972 was amended in 2006 to provide a separate chapter for strengthening tiger conservation, inter alia, with enabling provisions, for creating the National Tiger Conservation Authority. The said Authority was constituted as a statutory body on 4.9.2006 under the Ministry of Environment and Forests.

During present plan period, under the ongoing Centrally Sponsored Scheme of Project Tiger, 100% central assistance is being made available to States for expenditure on all non-recurring items; for recurring items, the central assistance is restricted to 50% of the expenditure, while the matching grant is provided by the Project States. In case of the North Eastern States, the ratio of matching grant is 90:10.

At present, the following activities are supported under the Centrally Sponsored Scheme of Project Tiger:

- (a) Some of the major non-recurring activities supported by the project include civil works like patrolling camps, project allowance for the staff deployed in tiger reserves, development and reinforcement of roads and wireless communication network, development of water impounding structures like ponds, anicuts, establishment of barriers, voluntary village relocation, creation of veterinary facilities, compensation to the dependents of staff killed while performing duty and the like.
- (b) The works of recurring nature include antipoaching squads, deployment of fire watchers, fire protection measures, weed eradication and indigenous grass management, compensation to fringe villagers for cattle depredation by carnivores, field research, estimation and monitoring of tigers and other wild animals, deployment of patrolling

camp watchers and the like. Each tiger reserve has its own site-specific Tiger Conservation Plan which is a statutory requirement.

### Technical and administrative monitoring mechanisms

The following technical and administrative monitoring mechanisms are in place:

- i. The tiger population is estimated once every four years using a refined methodology of double sampling using camera traps in mark-recapture statistical framework at the landscape level. The last such country level assessment was done in the year 2010. The country level tiger population has shown an increasing trend with a population estimate of 1706, lower and upper limits being 1520 and 1909 respectively in the recent all India tiger estimation (2010), as compared to the last country level estimation of 2006, with an estimate of 1411, lower and upper limits being 1165 and 1657 respectively. The details of tiger estimation are as under:

#### Details of tiger estimation for the year 2006 and 2010

State	Tiger Population						Increase/ Decrease/ Stable
	2006			2010			
	Estimate (Number)	Statistical Lower Limit	Statistical Upper Limit	Estimate (Number)	Statistical Lower Limit	Statistical Upper Limit	
<b>Shivalik-Gangetic Plain Landscape Complex</b>							
Uttarakhand	178	161	195	227	199	256	Increase
Uttar Pradesh	109	91	127	118	113	124	Stable
Bihar	10	7	13	8 (-)***	(-)***	(-)***	Stable
Shivalik-Gangetic landscape	297	259	335	353	320	388	Stable
<b>Central Indian Landscape Complex and Eastern Ghats Landscape Complex</b>							
Andhra Pradesh	95	84	107	72	65	79	Decrease
Chhattisgarh	26	23	28	26	24	27	Stable
Madhya Pradesh	300	236	364	257	213	301	Stable
Maharashtra	103	76	131	169	155	183	Increase
Odisha	45	37	53	32	20	44	Stable
Rajasthan	32	30	35	36	35	37	Stable
Jharkhand	Not assessed			10	6	14	Could not be compared since it was not assessed in 2006.
Central Indian landscape	601	486	718	601	518	685	Stable
<b>Western Ghats Landscape Complex</b>							
Karnataka	290	241	339	300	280	320	Stable
Kerala	46	39	53	71	67	75	Increase
Tamil Nadu	76	56	95	163	153	173	Increase
Western Ghats landscape	402	336	487	534	500	568	Increase
<b>North Eastern Hills and Brahmaputra Flood Plains</b>							
Assam	70	60	80	143	113	173	Increase
Arunachal Pradesh	14	12	18	Not assessed	Not assessed	Not assessed	Could not be compared since it was not assessed in 2010.
Mizoram	6	4	8	5 (-)***	(-)***	(-)***	Stable

Northern West Bengal	10	8	12	Not assessed	Not assessed	Not assessed	Could not be compared since it was not assessed in 2010.
North East Hills, and Brahmaputra landscape	100	84	118	148	118	178	Increase
Sundarbans	Not assessed	Not assessed	Not assessed	70	64	90	Could not be compared since it was not assessed in 2006.
<b>TOTAL</b>	<b>1411</b>	<b>1165</b>	<b>1657</b>	<b>1706</b>	<b>1520</b>	<b>1909</b>	

\*\*\* Statistical lower / upper limits could not be ascertained owing to small size of the population.

**The process for the next round of such assessment (2014) has been initiated.**

- ii. An independent Management Effectiveness Evaluation (MEE) of tiger reserves is done once in 4 years. The second round of such assessment based on refined criteria was done in 2010-11 for 39 tiger reserves. Out of 39 tiger reserves, 15 were rated as 'very good', 12 as 'good', 8 as 'satisfactory; and 4 as 'poor'. An abstract copy of the MEE Report 2010-11 is as under:

Rating	Number of Tiger Reserves	Percentage
Very Good	15	38
Good	12	31
Satisfactory	8	21
Poor	4	10
<b>Total</b>	<b>39</b>	

**Table-1: MEE Score (% age) of Landscape Clusters (2010-11)**

Cluster Number	Cluster Name	States	No. of Tiger Reserves	Mean MEE Score%	MEE Score Range%
I	Shivalik- Gangetic Plain Landscape Complex and Central Indian Landscape Complex and Eastern Ghats Landscape Complex	Uttar Pradesh, Uttarakhand, Rajasthan, Maharashtra	8	64	56-73
II	Central Indian Landscape Complex and Eastern Ghats Landscape Complex	Madhya Pradesh	6	79	56-88
III	Shivalik-Gangetic Plain Landscape Complex and Central Indian Landscape Complex and Eastern Ghats Landscape Complex	Bihar, Chhattisgarh, Odisha, Andhra Pradesh, Jharkhand	8	42	33-63
IV	Western Ghats Landscape Complex	Karnataka, Kerala, Tamil Nadu	9	75	63-80
V	North East Hills & Brahmaputra Flood Plains and Sundarbans	Arunachal Pradesh, Assam, Mizoram, West Bengal	8	66	56-77
	<b>TOTAL</b>		<b>39</b>	<b>65</b>	<b>33-88</b>

**Table-2(a): Category-wise outcome of MEE Process (2010-11)**

S. No.	Category	Name of Tiger Reserve
1.	Very Good	Annamalai, Bandhavgarh, Bandipur, Bhadra, Dandeli-Anshi, Kalakad-Mundanthurai, Kanha, Kaziranga, Mudumalai, Parambikulam, Pench (Madhya Pradesh), Periyar, Satpura, Sundarbans
2.	Good	Buxa, Corbett, Dampa, Dudhwa, Manas, Melghat, Nagarole, Pakke, Pench (Maharashtra), Ranthambhore, Tadoba-Andhari
3.	Satisfactory	Achanakmar, Nameri, Namdapha, Sanjay, Sayadari, Valmiki
4.	Poor	Satkosia

**Table-2(b): Category-wise outcome of MEE Process (2010-11) of Tiger Reserves falling in the 'Red Corridor'**

S. No.	Category	Name of Tiger Reserve
1.	Very Good	---
2.	Good	Nagarjunasagar-Srisailam
3.	Satisfactory	Similipal
4.	Poor	Indravati, Palamau, Udanti-Sitanadi

**Table-2(c): Category-wise outcome of MEE Process (2010-11) of Tiger Reserves, which had recently lost all tigers**

S. No.	Category	Name of Tiger Reserve
1.	Very Good	Panna
2.	Good	---
3.	Satisfactory	Sariska
4.	Poor	---

**Summary of MEE Process of Tiger Reserves**

Rating	Number of Tiger Reserves	Percentage
Very Good	15	38
Good	12	31
Satisfactory	8	21
Poor	4	10
<b>TOTAL</b>	<b>39</b>	

**Table-3: Comparison of MEE Rating of Tiger Reserves in 2005-06 and 2010-11**

Category	2005-06	%	2010-11	%
Very Good	09	32	10	36
Good	10	36	11	39
Satisfactory	07	25	05	18
Poor	02	07	02	07
<b>TOTAL</b>	<b>28</b>		<b>28</b>	

The process for the next round of such assessment (2014) has been initiated.

- iii. The 'M-STriPES' (Monitoring System for Tigers' Intensive Protection and Ecological Status) has been launched in 7 tiger reserves on a pilot basis for effective field patrolling and monitoring.
- iv. A year round, ongoing tiger reserve level monitoring (Phase-IV) is being implemented in all tiger reserves as per protocol issued in this regard using camera traps and other methods. In areas with low tiger density, and those affected by left wing extremism (where camera trapping is not feasible), DNA analysis from scats is being done for obtaining the minimum tiger number.
- v. With the help of the National Informatics Centre (NIC) process has been initiated for an online website for village relocation monitoring in the Sariska Tiger Reserve (Rajasthan).
- vi. A pilot initiative of electronic surveillance ("e-Eye"), using long range, intelligent thermal and infrared cameras, has been implemented in the southern part of the Corbett Tiger Reserve, on a 24x7 basis, to strengthen protection and monitoring.
- vii. Each tiger mortality to be treated as poaching.

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## CHAPTER VI

### Administrative Matters

There are 22 regular / 26 contractual administrative personnel in the establishment of the National Tiger Conservation Authority to assist the Member Secretary in discharging his duties. Dr. Rajesh Gopal, IFS from Madhya Pradesh cadre joined the National Tiger Conservation Authority as Member Secretary from September, 2006. The position in respect to the office establishment of the National Tiger Conservation Authority and the names of the positions (2012-13), are as follows:

Sl. No.	Name of the Post	Name of the incumbent	Pay Band/Salary (Rs.)
<b>Permanent basis</b>			
1.	Member Secretary	Dr. Rajesh Gopal	HAG+ Scale Rs. 75500-80000
2.	Inspector General of Forests (NTCA-HQ)	Dr. Himmat Singh Negi	PB-4 (Grade Pay Rs. 10,000/-)
3.	Inspector General of Forests (NTCA) Regional Office, Nagpur	Vacant	PB-4 (Grade Pay Rs. 10,000/-)
4.	Inspector General of Forests (NTCA) Bangalore	Vacant	PB-4 (Grade Pay Rs. 10,000/-)
5.	Inspector General of Forests (NTCA) Regional Office, Guwahati	Shri D.P. Bankhwal	PB-4 (Grade Pay Rs. 10,000/-)
6.	Joint Director / Deputy Inspector General (NTCA-HQ)	Shri S.P. Yadav	PB-4 (Grade Pay Rs. 10,000)
7.	Deputy Inspector General (NTCA-HQ)	Vacant	PB-4 (Grade Pay Rs. 8,900/-)
8.	Assistant Inspector General (NTCA-HQ)	Shri Sanjay Kumar	PB-4 (Grade Pay Rs. 8,700/-)
9.	Assistant Inspector General (NTCA-HQ)	Shri Rajeev Sharma	PB-4 (Grade Pay Rs. 8,700/-)
10.	Assistant Inspector General (NTCA-HQ)	Vacant	PB-4 (Grade Pay Rs. 8,700/-)
11.	Assistant Inspector General (NTCA-HQ)	Vacant	PB-4 (Grade Pay Rs. 8,700/-)
12.	Assistant Inspector General (NTCA) Regional Office, Nagpur	Shri Ravikiran S. Govekar	PB-4 (Grade Pay Rs. 7,600/-)
13.	Assistant Inspector General (NTCA) Regional Office, Bangalore	Shri C.M. Shivakumar	PB-4 (Grade Pay Rs. 7,600/-)
14.	Assistant Inspector General (NTCA) Regional Office, Guwahati	Vacant	PB-4 (Grade Pay Rs. 8,700/-)
15.	Deputy Director (Finance) (NTCA-HQ)	Vacant	PB-3 (Grade Pay Rs. 6,600/-)

16.	PS	Shri Ram Mehar Singh	PB-3 (Grade Pay Rs.5,400)
17.	Section Officer	Vacant	PB-2 (Grade Pay Rs.4,800)
18.	Assistant	Shri R.D.P. Sinha	PB-2 (Grade Pay Rs.4,800)
19.	Staff Car Driver	Shri K.S. Bhandari	PB-2 (Grade Pay Rs.2,800)
20.	Chowkidar	Shri Madan Singh	PB-1 (Grade Pay Rs.2,000)
21.	Chowkidar	Shri Laxmi Narayan	PB-1 (Grade Pay Rs.2,000)
22.	Chowkidar	Shri Suresh Pandit	PB-1 (Grade Pay Rs.2,000)
<b>Outsourced basis</b>			
1.	Finance Officer	Shri C.M. Bakshi	Rs. 26400/-
2.	Section Officer	Shri P.C. Mamgain	Rs. 22000/-
3.	Consultant	Shri R.K. Kataria	Rs. 26400/-
4.	Data Analyst	Shri B.K. Mishra	Rs. 24200/-
5.	Accountant	Shri S.N. Dhaulakhandi	Rs. 19800/-
6.	Data Entry Operator	Ms. Sheetal Bisht	Rs. 19800/-
7.	Data Entry Operator	Shri Khushi Ram	Rs. 11000/-
8.	Data Entry Operator	Ms. Kavita Sharma	Rs. 11000/-
9.	Data Entry Operator	Shri Dheerendra Kumar Pandey	Rs. 9900/-
10.	Office Assistant	Shri Laxman Singh	Rs. 17050/-
11.	Office Assistant	Shri Mukesh Kumar	Rs. 17050/-
12.	Dispatcher	Ms. Radha	Rs. 17050/-
13.	Driver	Shri Akbar	Rs. 12100/-
14.	Messenger	Shri Shiv Singh	Rs. 11000/-
15.	Data Entry Assistant	Shri Ankur Sharma	Rs. 9900/-
16.	Office Boy	Shri Udal Singh Gond	Rs. 8800/-
17.	Safaikaramchari	Shri Rahul	Rs. 7150/-
18.	Consultant, Regional Office, Guwahati	NTCA Shri Jyoti P. Das	Rs. 20,000/-
19.	Data Entry Assistant	Shri Dilip R. Dharmik, Nagpur Regional Office	Rs. 8252/-
20.	Peon	Shri Yogesh G. Sakarde, Nagpur Regional Office	Rs. 5500/-
21.	Data Entry Assistant	Mr. Jitumani Mahanta, Guwahati Regional Office	Rs. 8250/-



22.	Peon	Shri Amar Dorjee, Peon, Guwahati RO	Rs. 5500/-
23.	Peon	Shri Manohar N., Bengaluru RO.	Rs. 6600/-
24.	Data Entry Assistant	Shri Rajushetty, K.L, Bengaluru RO	Rs. 9900/-
25.	Night Security Guard	Shri Mahantesh, N., Bengaluru RO	Rs. 6000/-
26.	Wildlife Biologist, Similipal Tiger Reserve, Odisha	Dr. Pratyush Mahapatra	Rs. 25,000/-

Note: Salary of NTCA Contractual staff has been increased from December, 2012, as indicated above.

### **Milestone initiatives taken by the Government of India for protection and conservation of tigers and other wild animals**

#### Legal steps

1. Amendment of the Wild Life (Protection) Act, 1972 in 2006 to provide enabling provisions for constituting the National Tiger Conservation Authority and the Tiger and Other Endangered Species Crime Control Bureau.
2. Enhancement of punishment for offence in relation to the core area of a tiger reserve or where the offence relate to hunting in the tiger reserves or altering the boundaries of tiger reserves, etc.

#### Administrative steps

3. Strengthening of antipoaching activities, including special strategy for monsoon patrolling, by providing funding support to tiger reserve States, as proposed by them, for deployment of antipoaching squads involving ex-army personnel or home guards, apart from workforce comprising of local people, in addition to strengthening of communication and wireless facilities.
4. Constitution of the National Tiger Conservation Authority with effect from the 4th September, 2006, for strengthening tiger conservation by, inter alia, ensuring normative standards in tiger reserve management, preparation of reserve specific tiger conservation plan, laying down annual audit report before Parliament, constituting State level Steering Committees under the Chairmanship of Chief Ministers and establishment of Tiger Conservation Foundation.
5. Constitution of a multidisciplinary Tiger and Other Endangered Species Crime Control Bureau (Wildlife Crime Control Bureau) with effect from the 6th June, 2007 to effectively control illegal trade in wildlife.
6. The in-principle approval has been accorded by the National Tiger Conservation Authority for creation of five new tiger reserves, and the sites are:, Pilibhit (Uttar Pradesh), Ratapani (Madhya Pradesh), Sunabeda (Odisha) and Mukundara Hills (including Darrah, Jawahar Sagar and Chambal Wildlife Sanctuaries) (Rajasthan). Final approval has been accorded to Kudremukh (Karnataka) for declaring as a tiger reserve. The State Governments have been advised to send proposals for declaring the following areas as tiger reserves: (i) Bor (Maharashtra), (ii) Suhelwa (Uttar Pradesh), (iii) Nagzira-Navegaon (Maharashtra), (iv) Guru

Ghasidas National Park (Chhattisgarh), (v) Mhadei Sanctuary (Goa) and (vi) Srivilliputhur Grizzled Giant Squirrel / Megamalai Wildlife Sanctuaries / Varushanadu Valley (Tamil Nadu).

7. The revised Project Tiger guidelines have been issued to State Governments for strengthening tiger conservation, which apart from ongoing activities, inter alia, include financial support to States for enhanced village relocation or rehabilitation package for people living in core or critical tiger habitats (from Rs. 1 lakh per family to Rs. 10 lakhs per family), rehabilitation or resettlement of communities involved in traditional hunting, mainstreaming livelihood and wildlife concerns in forests outside tiger reserves and fostering corridor conservation through restorative strategy to arrest habitat fragmentation.

8. A scientific methodology for estimating tiger (including co-predators, prey animals and assessment of habitat status) has been evolved and mainstreamed. The findings of this estimation and assessment are bench marks for future tiger conservation strategy.

9. The 17 tiger States have notified the core/critical tiger habitat (35917.45 sq. km.), and the buffer/peripheral area (29365.64 sq.km.) of all the 42 tiger reserves in the country, under section 38V of the Wild Life (Protection) Act, 1972, as amended in 2006.

#### Financial steps

10. Financial and technical help is provided to the State Governments under various Centrally Sponsored Schemes, such as Project Tiger and Integrated Development of Wildlife Habitats for enhancing the capacity and infrastructure of the State Governments for providing effective protection to wild animals.

#### International Cooperation

11. India has a bilateral understanding with Nepal on controlling trans-boundary illegal trade in wildlife and conservation, apart from a protocol on tiger conservation with China.

12. A protocol has been signed in September, 2011 with Bangladesh for conservation of the Royal Bengal Tiger of the Sunderban.

13. A sub-group on tiger and leopard conservation has been constituted for cooperation with the Russian Federation.

14. A Global Tiger Forum of Tiger Range Countries has been created for addressing international issues related to tiger conservation.

15. During the 14th meeting of the Conference of Parties to CITES, which was held from 3rd to 15th June, 2007 at The Hague, India introduced a resolution along with China, Nepal and the Russian Federation, with direction to Parties with operations breeding tigers on a commercial scale, for restricting such captive populations to a level supportive only to conserving wild tigers. The resolution was adopted as a decision with minor amendments. Further, India made an intervention appealing to China to phase out tiger farming and eliminate stockpiles of Asian big cats body parts and derivatives. The importance of continuing the ban on trade of body parts of tigers was emphasized.

16. Based on India's strong intervention during the 62nd meeting of the Standing Committee of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) at Geneva from 23-27 July, 2012, the Convention on International Trade in Endangered Species of Wild Fauna and Flora Secretariat has issued a notification No. 2012/054 dated the 3rd September, 2012 to Parties to fully implement Decision 14.69 and report to the Secretariat by 25 September, 2012 (Progress made on restricting captive breeding operations of tigers etc.).

17. As a part of active management to rebuild Sariska and Panna Tiger Reserves where tigers have become locally extinct, reintroduction of tigers and tigresses have been done. The successful reintroduction of wild tigers in Sariska is a unique exercise and is the first of its kind in the world. A reintroduced tigress has recently littered and two cubs have also been camera trapped. The tiger reintroduction initiative at Panna (MP) has also been very successful and reintroduced tigers are breeding.

18. Special advisories issued for in-situ build up of prey base and tiger population through active management in tiger reserves having low population status of tiger and its prey.

#### Creation of Special Tiger Protection Force (STPF)

19. The policy initiatives announced by the Finance Minister in his Budget Speech of the 29th February, 2008, inter alia, contains action points relating to tiger protection. Based on the one time grant of Rs. 50.00 crore provided to the National Tiger Conservation Authority (NTCA) for raising, arming and deploying a Special Tiger Protection Force (STPF), the proposal for the said force has been approved by the competent authority for 13 tiger reserves. The States of Karnataka and Maharashtra have already created and deployed the STPF.

20. In collaboration with TRAFFIC-INDIA, an online tiger crime data base has been launched, and Generic Guidelines for preparation of reserve specific Security Plan has been evolved.

#### Recent initiatives

21. Implementing a tripartite Memorandum of Understanding (MOU) with tiger States, linked to fund flows for effective implementation of tiger conservation initiatives.

22. Special crack teams sent to tiger reserves affected by left wing extremism and low population status of tiger and its prey.

23. Chief Ministers of States having tiger reserves affected by left wing extremism and low population status of tiger and its prey addressed for taking special initiatives.

24. Steps taken for modernizing the infrastructure and field protection, besides launching 'Monitoring system for Tigers' Intensive Protection and Ecological Status (M-STrIPES) for effective field patrolling and monitoring.

25. Steps taken for involvement of Non-Governmental Experts in the ongoing all India tiger estimation.

26. Initiatives taken for improving the field delivery through capacity building of field officials, apart from providing incentives.

27. The second round of country level tiger status assessment completed in 2010, with the findings indicating an increase with a tiger population estimate of 1706, lower and upper limits being 1520 and 1909 respectively, as compared to the last country level estimation of 2006, with an estimate of 1411, lower and upper limits being 1165 and 1657, respectively. At present, India has the maximum number of tigers and its source areas amongst the 13 tiger range countries in the world, owing to its long history of conserving the species through Project Tiger (2% of country's geographical area spread out in 41 tiger reserves in 17 States).

28. A report on Management Effectiveness Evaluation (MEE) of Tiger Reserves was released on 28th July, 2011, containing the second round of independent assessment based on refined criteria done in 2010-11 for 39 tiger reserves. Out of 39 tiger reserves, 15 were rated as 'very good', 12 as 'good', 8 as 'satisfactory' and 4 as 'poor'.
29. Providing special assistance for mitigation of human-tiger conflicts in problematic areas.
30. Regional Offices of the National Tiger Conservation Authority sanctioned at Nagpur, Bengaluru and Guwahati.
31. A 'Standard Operating Procedure' for dealing with tiger deaths has been issued, based on advisories of Project Tiger / National Tiger Conservation Authority, with inputs from Wildlife Crime Control Bureau, State officials and experts, fine tuned to meet the present challenges.
32. A 'Standard Operating Procedure' for dealing with straying tigers in human dominated landscape has been issued.
33. The Revised Cost Estimates for Project Tiger was approved on 11.8.2011 for an upward revision of the cost estimates for the ongoing Centrally Sponsored Scheme of Project Tiger during the XIth Plan period from 650 crore to Rs. 1216.86 crore of central assistance to support States in village relocation from core areas of tiger reserves. Several new components were added to the Project, viz.:
- (i) Change in the funding pattern in respect of North Eastern States (90:10)
  - (ii) Raising compensation for man-animal conflict to Rs. 2 lakhs
  - (iii) Acquisition of private land for making the core/critical tiger habitat inviolate
  - (iv) Establishment of Tiger Safari, interpretation/awareness centres under the existing component of 'co-existence agenda in buffer/fringe areas', and management of such centres through the respective Panchayati Raj Institutions
  - (v) Re-introduction of Cheetah
34. Launching of Phase-IV tiger reserve level, continuous monitoring of tigers using camera traps and building up data on photo captures of individual tigers.
35. Launching the creation of a national repository of camera trap photo IDs of individual tigers.
36. Notification of the Kawal Tiger Reserve in Andhra Pradesh.
37. In-principle approval for use of CAMPA funds towards village relocation from core areas.
38. Completion of e-surveillance project in Corbett.
39. Comprehensive guidelines under section 38O 1 (c) of the Wildlife (Protection) Act, 1972 issued for Project Tiger and Tourism in Tiger Reserves on 15th October, 2012.
40. Under active management, permission accorded for translocation of two tigresses from Ranthambhore to Sariska (Rajasthan), besides one straying sub-adult male tiger from Panna to Satpura (Madhya Pradesh).
41. A bilateral arrangement has been recently formalized with Bangladesh on tiger conservation. Our delegations are interacting with Nepal and China within the framework of existing bilateral arrangements. A sub-group on tiger/leopard conservation has been constituted for cooperation with the Russian Federation, which has met recently.

42. Field level workshops for capacity building of field officers to deal with straying tigers have been organized at Tadoba and Dudhwa Tiger Reserves (2013).
43. NTCA teams sent for field appraisal of tiger deaths, Project Tiger implementation etc.
44. Process underway for providing enabling provisions in the Wildlife (Protection) Act, 1972; to strengthen our implementation of the CITES and towards enhancement of penalties for contravention of provisions of the Act.

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## CHAPTER VII

### Financial and Accounts of the Tiger Conservation Authority

1.	Imprest Previous Year	Rs.	38,000/-
2.	Bank Balance	Rs.	14,56,18,594/-
3.	Sale of proceeds of old articles	Rs.	1,500/-
4.	Security deposit	Rs.	3,794/-
5.	Recovery of advances	Rs.	31,700/-
6.	Grant-in-Aid to NTCA	Rs.	1,00,00,000/-

**TOTAL** **Rs. 15,56,93,588/-**

2406.01.04	National Tiger Conservation Authority (Detailed Head)	Allocation	Expenditure
01.04.31	Grants-in-aid-General & others	5,56,93,588/-	5,30,05,560/-
01.04.35	Grants for Creation of capital assets	10,00,00,000/-	33,89,600/-

### Reasons for shortfall in expenditure

Shortfall in expenditure is due to less expenditure by the Wildlife Institute of India, Dehradun for tiger estimation work and three Regional Offices of the National Tiger Conservation Authority at Nagpur, Bangalore and Guwahati, which have been set up at the last lag of the financial year in the month of March, 2011. No expenditure, therefore, could be incurred on the furniture, fitting and fixtures and office equipments of these offices resulted in savings. It is proposed to utilize the saved funds during 2013-14 for meeting these expenses apart from day to day administrative expenses of National Tiger Conservation Authority by obtaining approval from Finance Division for revalidation of funds for use during 2012-13.

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## CHAPTER VIII

### Annual Plan of the Tiger Conservation Authority

1. Based on the Tiger Task Force recommendations constituted by the National Board for Wildlife chaired by the Prime Minister, the Wildlife (Protection) Act, 1972 has been amended in 2006, to provide a separate chapter (Chapter IVB) for constituting the National Tiger Conservation Authority. The said Authority has been constituted with effect from 4<sup>th</sup> September, 2006.
2. The functions of NTCA are provided under section 38O of the Wildlife (Protection) Act, 1972, as amended in 2006. The NTCA would address the ecological as well as administrative concerns for conserving tigers, by providing a statutory basis for protection of tiger reserves, apart from providing strengthened institutional mechanisms for the protection of ecologically sensitive areas and endangered species. The Authority would also ensure enforcing of guidelines for tiger conservation and monitoring compliance of the same, apart from placement of motivated and trained officers having good track record as Field Directors of tiger reserves. It would also facilitate capacity building of officers and staff posted in tiger reserves, apart from a time bound staff development plan.
3. During the financial year 2012-13, an amount of Rs. 100 lakhs has been provided to the NTCA as Grants-in-aid. The previous balance of Rs. 14.56 crores has been got revalidated for use during 2012-13.
4. Consequent to the Wildlife (Protection) Amendment Act, 2006, coming into force with effect from 4.9.2006, based on the enabling provisions under Section 38N of the said Act, the posts borne on the establishment strength of the MoEF and working in Project Tiger, have been transferred to the NTCA.
5. Details of sanctioned posts at NTCA Headquarter and Regional Offices of NTCA at Nagpur, Guwahati and Bangalore are as under:

#### NTCA Headquarter

S. No.	Name of Post	No. of Posts
1.	Addl. Director General of Forests (Project Tiger) & Member Secretary (NTCA)	1
2.	Inspector General of Forests	1
3.	Deputy Inspector General of Forests	2
4.	Assistant Inspector General of Forests	4
5.	Deputy Director (Finance)	1
	<b>TOTAL</b>	<b>9</b>

#### NTCA Regional Offices (Nagpur, Guwahati and Bangalore)

S. No.	Name of Post	No. of Posts
1.	Inspector General of Forests	3
2.	Assistant Inspector General of Forests	3
	<b>TOTAL</b>	<b>6</b>

6. Section 38Q of the Wildlife (Protection) Act, 1972, as amended in 2006, provides for constitution of a fund for the NTCA, to be called as the Tiger Conservation Authority Fund, for crediting grants / loans etc.
7. Section 63(giv) and (gv) provide for rule relating to Annual Statement of Accounts of the NTCA as well as submission of its Annual Report under Sections 38R and 38S of the said Wildlife (Protection) Act, 1972, respectively.

8. Proposals relating to contractual services / professional service with funding support from NTCA are approved by the Technical Committee of the NTCA. Director (IFD) is a member of the said Technical Committee. In case due to unavoidable circumstance, if the IFD is not represented in the meeting of the Technical Committee of the NTCA, the proposals would be approved on the basis of majority decision, and the IFD would be apprised of the outcome through the minutes of the meeting of the said Committee.

9. Accounts of the National Tiger Conservation Authority (NTCA) for the year 2012-13 have been compiled. The internal audit has been conducted by the Accounts Officer (IAW), office of the Controller of Accounts, MoEF, Internal Audit Wing, Ministry of Environment and Forests, New Delhi. The final audit of the accounts of the NTCA was conducted by the Principal Director of Audit, Scientific Department of CAG under Section 19(2) of C&AGs (Duties, powers and conditions of Service) Act, 1972 read with Section 38 E (5) & (6) of the Wildlife (Protection) Act, 1972. Copy of the Accounts for the year 2012-13 containing receipt and payments accounts, income and expenditure accounts and balance sheet as on 31<sup>st</sup> March, 2013 with schedule is placed as **Annexure – (iv) to (xvi)**. Audit Report submitted by the Principal Director of Audit, Scientific Department of CAG is furnished in **Annexure- (xvii to xviii)**.

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**CHAPTER IX**  
**(As on 31.3.2013)**

**Compliance Issues**

**1. Tiger Conservation Plans (as on 31.3.2013):**

Under section 38O of the Wildlife (Protection) Act, the NTCA is authorized to accord approval to Tiger Conservation Plans prepared by the States. The details of Tiger Conservation Plans received from the States are as below:

S. No.	Name of Tiger Reserve	State
1	Valmiki	Bihar
2	Palamau	Jharkhand
3	Periyar	Kerala
4	Parambikulam	Kerala
5	Pench-MP	Madhya Pradesh
6	Kanha	Madhya Pradesh
7	Pench Maharashtra	Maharashtra
8	Corbett	Uttarakhand
9	Buxa	West Bengal
10	Sunderbans	West Bengal

The Tiger Conservation Plans are under examination / scrutiny by experts.

**2. Steering Committee (as on 31.3.2013):**

Under section 38U of the Wildlife (Protection) Act, States are required to constitute a State level Steering Committee headed by the Chief Minister. The details are as below:

Sl. No.	Tiger Reserve/State	Steering Committee
1.	Andhra Pradesh	Received
2.	Chhattisgarh	Received
3.	Mizoram	Received
4.	Karnataka	Received
5.	Madhya Pradesh	Received
6.	Maharashtra	Received
7.	Uttar Pradesh	Received
8.	Tamil Nadu	Received
9.	Orissa	Received
10.	Kerala	Received
11.	Rajasthan	Received
12.	West Bengal	Received
13.	Bihar	Received
14.	Assam	Received
15.	Arunachal Pradesh	Received
16.	Uttarakhand	Received

**\* Only the State Government of Jharkhand has not yet constituted the State level Steering Committee.**

### 3. Tiger Conservation Foundation (as on 31.3.2013):

Under section 38X of the Wildlife (Protection) Act, 1972, the States are required to constitute Tiger Conservation Foundations for tiger reserves to facilitate and support their management. The status of formation of the Tiger Conservation Foundation is as under:

Sl. No.	Tiger Reserve/State
1.	Pakke Tiger Conservation Foundation, Arunachal Pradesh
2.	Namdapha Tiger Conservation Foundation, Arunachal Pradesh
3.	Dampa Tiger Conservation Foundation, Tuikhuahtlang, Mizoram
4.	Andhra Pradesh Tiger Conservation Foundation, Andhra Pradesh (for Nagarjunasagar Srisailem TR)
5.	Bandipur Tiger Conservation Foundation, Karnataka
6.	Bhadra Tiger Conservation Foundation, Karnataka
7.	Dandeli Anshi Tiger Conservation Foundation, Karnataka
8.	Kalakakad Mundanthurai Tiger Conservation Foundation, Tamil Nadu
9.	Mudumalai Tiger Conservation Foundation, Tamil Nadu, Udhagamandalam.
10.	Anamalai Tiger Conservation Foundation, Tamil Nadu
11.	Madhya Pradesh (Kanha, Satpura, Pench, Panna, Bandhavgarh & Sanjay-Dubri)
12.	Buxa Tiger Conservation Foundation Trust, West Bengal
13.	Sundarban Tiger Conservation Foundation Trust, West Bengal
14.	Manas Tiger Conservation Foundation, Assam
15.	Kaziranga Tiger Conservation Foundation, Assam
16.	Nameri Tiger Conservation Foundation, Assam
17.	Achanakmar Tiger Conservation Foundation, Chhattisgarh
18.	Udanti-Sitanadi Tiger Conservation Foundation, Chhattisgarh
19.	Tadoba Andhari Tiger Reserve Conservation Foundation, Maharashtra
20.	Indravati Tiger Conservation Foundation, Chhattisgarh
21.	Ranthambhore Tiger Conservation Foundation, Rajasthan
22.	Sariska Tiger Conservation Foundation, Alwar, Rajasthan
23.	Corbett Tiger Conservation Foundation, Uttarakhand
24.	Pench Tiger Conservation Foundation, Maharashtra
25.	Melghat Tiger Reserve Conservation Foundation, Maharashtra
26.	Similipal Tiger Conservation Foundation, Odisha
27.	Satkosia Tiger Conservation Foundation, Odisha
28.	Nagarhole Tiger Conservation Foundation, Karnataka
29.	Periyar Tiger Conservation Foundation, Periyar Tiger Reserve, Kerala
30.	Parambikulam Tiger Conservation Foundation, Kerala
31.	Valmiki Tiger Conservation Foundation, Bihar
32.	BRT Tiger Conservation Foundation, Karnataka
33.	Sahyadri Tiger Reserve Conservation Foundation, Kohlapur, Maharashtra

#### Pending TCF :-

1. Dudhwa TR (UP)
2. Palamau TR (Jharkhand)
3. Kawal TR (Andhra Pradesh)

#### 4. Core and Buffer notification (as on 31.3.2013):

Under section 38V of the Wildlife (Protection) Act, 1972, the National Tiger Conservation Authority is vested with the power to recommend the notification of an area as a tiger reserve. The status of core and buffer notification by States are as under:

Sl. No.	Name of Tiger Reserve	State	Area of the core / critical tiger habitat (In Sq. Kms.)	Area of the buffer / peripheral (In Sq. Kms.)	Total area
1	Bandipur	Karnataka	872.24	584.06	1456.3
2	Corbett	Uttarakhand	821.99	466.32	1288.31
3	Kanha	Madhya Pradesh	917.43	1134.361	2051.791
4	Manas	Assam	840.04	2310.88	3150.92
5	Melghat	Maharashtra	1500.49	1268.03	2768.52
6	Palamau	Jharkhand	414.08	715.85	1129.93
7	Ranthambore	Rajasthan	1113.364	297.9265	1411.291
8	Similipal	Odisha	1194.75	1555.25	2750.00
9	Sunderbans	West Bengal	1699.62	885.27	2584.89
10	Periyar	Kerala	881.00	44.00	925.00
11	Sariska	Rajasthan	881.1124	332.23	1213.342
12	Buxa	West Bengal	390.5813	367.3225	757.9038
13	Indravati	Chhattisgarh	1258.37	1540.70	2799.07
14	Nagarjunsagar	Andhra Pradesh	3721.00	1175.51	4896.51
15	Namdapha	Arunachal Pradesh	1807.82	245.00	2052.82
16	Dudhwa	Uttar Pradesh	1093.79	1107.9848	2201.7748
17	Kalakad-Mundanthurai	Tamil Nadu	895.00	706.542	1601.542
18	Valmiki	Bihar	598.45	300.93	899.38
19	Pench	Madhya Pradesh	411.33	768.30225	1179.63225
20	Tadoba-Andhari	Maharashtra	625.82	1101.7711	1727.5911
21	Bandhavgarh	Madhya Pradesh	716.903	820.03509	1536.938
22	Panna	Madhya Pradesh	576.13	1002.42	1578.55
23	Dampa	Mizoram	500.00	488.00	988.00
24	Bhadra	Karnataka	492.46	571.83	1064.29
25	Pench	Maharashtra	257.26	483.96	741.22
26	Pakke	Arunachal Pradesh	683.45	515.00	1198.45
27	Nameri	Assam	200.00	144.00	344.00
28	Satpura	Madhya Pradesh	1339.264	794.04397	2133.30797
29	Anamalai	Tamil Nadu	958.59	521.28	1479.87
30	Udanti-Sitanadi	Chhattisgarh	851.09	991.45	1842.54
31	Satkosia	Odisha	523.61	440.26	963.87
32	Kaziranga	Assam	625.58	548.00	1173.58
33	Achanakmar	Chhattisgarh	626.195	287.822	914.017
34	Dandeli-Anshi	Karnataka	814.884	282.63	1097.514
35	Sanjay-Dubri	Madhya Pradesh	812.571	861.931	1674.502
36	Mudumalai	Tamil Nadu	321.00	367.59	688.59
37	Nagarahole	Karnataka	643.35	562.41	1205.76
38	Parambikulam	Kerala	390.89	252.772	643.662

39	Sahyadri	Maharashtra	600.12	565.45	1165.57
40	Biligiri Ranganatha Temple	Karnataka	359.10	215.72	574.82
41	Kawal	Andhra Pradesh	893.23	1125.89	2019.12
4	Sathyamangalam	Tamil Nadu	793.49	614.91	1408.40
	<b>TOTAL</b>		<b>35917.45</b>	<b>29365.64</b>	<b>65283.09</b>

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**CHAPTER X**

**ANNEXURES**

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**Annexure (i) to (xviii)**

**List of Tiger Reserves in India****Annexure-(i)**

Sl. No.	Name of Tiger Reserve	State
1	Bandipur	Karnataka
2	Corbett	Uttarakhand
3	Kanha	Madhya Pradesh
4	Manas	Assam
5	Melghat	Maharashtra
6	Palamau	Jharkhand
7	Ranthambore	Rajasthan
8	Similipal	Orissa
9	Sunderbans	West Bengal
10	Periyar	Kerala
11	Sariska	Rajasthan
12	Buxa	West Bengal
13	Indravati	Chhattisgarh
14	Nagarjunasagar	Andhra Pradesh
15	Namdapha	Arunachal Pradesh
16	Dudhwa	Uttar Pradesh
17	Kalakad-Mundanthurai	Tamil Nadu
18	Valmiki	Bihar
19	Pench	Madhya Pradesh
20	Tadoba-Andhari	Maharashtra
21	Bandhavgarh	Madhya Pradesh
22	Panna	Madhya Pradesh
23	Dampa	Mizoram
24	Bhadra	Karnataka
25	Pench	Maharashtra
26	Pakke	Arunachal Pradesh
27	Nameri	Assam
28	Satpura	Madhya Pradesh
29	Anamalai	Tamil Nadu
30	Udanti-Sitanadi	Chhattisgarh
31	Satkosia	Orissa
32	Kaziranga	Assam
33	Achanakmar	Chhattisgarh
34	Dandeli-Anshi	Karnataka
35	Sanjay-Dubri	Madhya Pradesh
36	Mudumalai	Tamil Nadu
37	Nagarahole	Karnataka
38	Parambikulam	Kerala
39	Sahyadri	Maharashtra
40	Biligiri Ranganatha Temple	Karnataka
41	Kawal	Andhra Pradesh
42	Sathyamangalam	Tamil Nadu

**Tiger Mortality (Natural & Other Causes) inside Tiger Reserve**  
**(April 2012 to March, 2013)**  
 (As reported by States)

Sl. No.	Name of Place	State	Date	No.	Remarks
1.	Mudumalai Tiger Reserve	Tamil Nadu	7.4.2012	1	Under Scrutiny
2.	Corbett Tiger Reserve	Uttarakhand	8.4.2012	1	Natural
3.	Melghat Tiger Reserve	Maharashtra	16.4.2012	1	Natural
4.	Kaziranga Tiger Reserve	Assam	25.4.2012	1	Natural
5.	Tadoba Andhari Tiger Reserve (Buffer Palesgaon range)	Maharashtra	26.4.2012	1	Poaching
6.	Anamalai Tiger Reserve	Tamil Nadu	28.4.2012	1 (M)	Natural
7.	Nagarahole Tiger Reserve	Karnataka	28.4.2012	1 (M) Adult	Natural
8.	Bandipur Tiger Reserve	Karnataka	4.5.2012	1	Natural
9.	Bandhavgarh Tiger Reserve	Madhya Pradesh	12.5.2012	1	Natural
10.	Corbett Tiger Reserve	Uttarakhand	24.5.2012	1	Poaching
11.	Dudhwa Tiger Reserve	Uttar Pradesh	27.5.2012	1	Infighting
12.	Bandipur Tiger Reserve	Karnataka	30.5.2012	1	Natural
13.	Pench Tiger Reserve (Mah)	Maharashtra	1.6.2012	1 (cub)	Natural
14.	Bandhavgarh Tiger Reserve (Magadhi range)	Madhya Pradesh	1.6.2012	1	Under Scrutiny
15.	Sunderbans Tiger Reserve	West Bengal	5.6.2012	1 (cub)	Natural
16.	Sunderbans Tiger Reserve	West Bengal	9.6.2012	1	Natural
17.	Bandipur Tiger Reserve	Karnataka	2.7.2012	1	Natural
18.	Kanha Tiger Reserve	Madhya Pradesh	24.7.2012	1	Natural
19.	Panna Tiger Reserve	Madhya Pradesh	27.7.2012	1 (sub-adult)	Under Scrutiny
20.	Kanha Tiger Reserve	Madhya Pradesh	28.7.2012	1	Pus formation in lungs, viscera sent for poison, disease
21.	Valmiki Tiger Reserve	Bihar	23.8.2012	1 (cub)	Natural, killed by adult male tiger
22.	Similipal Tiger Reserve	Odisha	2.9.2012	1 skin seizure	Skin seizure/poaching

23.	BRT Tiger Reserve	Karnataka	30.9.2012	1 (F adult)	Poaching/poisoning suspected (organs intact)
24.	Tadoba Andhari Tiger Reserve	Maharashtra	28.10.2012	1	Poisoning suspected
25.	Mudumalai Tiger Reserve	Tamil Nadu	31.10.2012	1	Poisoning suspected
26.	Bandipur Tiger Reserve	Karnataka	8.11.2012	1	Poisoning suspected
27.	Periyar Tiger Reserve	Kerala	26.11.2012	1	Poisoning suspected
28.	Mudumalai Tiger Reserve (Kargudi)	Tamil Nadu	28.11.2012	1	Under Scrutiny
29.	Bandipur Tiger Reserve (Moolpura beat, Bandipur range)	Karnataka	30.11.2012	1 (cub)	Under Scrutiny
30.	Kaziranga Tiger Reserve	Assam	7.12.2012	1	Poisoning suspected
31.	Kaziranga Tiger Reserve	Assam	8.12.2012	1	Poisoning suspected
32.	Kaziranga Tiger Reserve	Assam	7.1.2013	1 (cub)	Poaching
33.	Nagarahole Tiger Reserve	Karnataka	13.1.2013	1	Poaching
34.	Bandipur Tiger Reserve	Karnataka	18.1.2013	1	Poaching
35.	Corbett Tiger Reserve (in Amangarh range buffer area of UP)	Uttarakhand	19.1.2013	1	Poaching
36.	Panna Tiger Reserve	Madhya Pradesh	2.2.2013	1 (9 months old cub)	Natural (infighting)
37.	Nagarahole Tiger Reserve	Karnataka	15.2.2013	1	Poaching
38.	Similipal Tiger Reserve (Jodapal Beat, Nawana South Range)	Odisha	16.2.2013	1	Old age suspected (Poaching)
39.	Bandipur Tiger Reserve	Karnataka	17.2.2013	1	Under investigation
40.	Nagarahole Tiger Reserve	Karnataka	25.2.2013	1	External injuries on body
41.	Melghat Tiger Reserve (Dhakana range, Compt. No. 1140, Kasmar Beat, Dolar Round)	Maharashtra	1.3.2013	1	Poaching
42.	Bandipur Tiger Reserve	Karnataka	5.3.2013	1	One week old carcass recovered
43.	BRT Tiger Reserve	Karnataka	7.3.2013	1	Two week old carcass recovered. Peutrified / decomposed body
44.	Sunderbans Tiger Reserve (Jhilla-5, Compt.of Dutar beat of	West Bengal	10.3.2013	1	Natural



	Sajnekhali beat)				
45.	Nagarahole Tiger Reserve	Karnataka	15.3.2013	1	Under Scrutiny
46.	Ranthambhore Tiger Reserve	Rajasthan	18.3.2013	1	Under Scrutiny
47.	Nagarahole Tiger Reserve	Karnataka	25.3.2013	1	Under Scrutiny

**Tiger Mortality Outside Tiger Reserves**  
**(April, 2012 to March, 2013)**  
(As reported by States)

Sl. No.	Name of Place	State	Date	No.	Remarks
1.	Piriyakattana, Karnataka	Karnataka	6.4.2012	Seizure of 1 skin, 13 claws and teeth	Seizure
2.	Segur Range, Nilgiri North Division, Tamil Nadu	Tamil Nadu	6.4.2012	1	Natural
3.	Erode Division, Tamil Nadu	Tamil Nadu	6.4.2012	1	Skin + cub bones+ribs+chin
4.	Badigeri Division, Karnataka (Outside Nagarahole TR)	Karnataka	11.4.2012	1	Skin seizure
5.	Bhanupratappur, Chattisgarh	Chattisgarh	21.4.2012	1	Skin seized
6.	Terai West Division, Uttarakhand	Uttarakhand	24.4.2012	1	Natural
7.	Chandrapur, Maharashtra	Maharashtra	18.5.2012	1	Poaching
8.	Haripur range, Pilibhit Division, Uttar Pradesh	Uttar Pradesh	24.5.2012	1	Poaching
9.	Haripur range, Pilibhit Division, Uttar Pradesh	Uttar Pradesh	25.5.2012	1	Poaching
10.	Nainital Zoo	Uttarakhand	31.5.2012	1	Natural
11.	Bhopal	Madhya Pradesh	6.6.2012	1	Electrocution-Poaching
12.	Patrampur range, Terai West, Uttarakhand	Uttarakhand	6.6.2012	1 (cub)	Poaching
13.	Chamrajnagar territorial range (near BRT Tiger Reserve)	Karnataka	12.6.2012	1 (cub)	Skin seizure
14.	South Chanda Territorial Division, Maharashtra	Maharashtra	29.6.2012	1 (cub)	Under Scrutiny
15.	West Chanda (FDCM), Maharashtra	Maharashtra	30.6.2012	1	Under Scrutiny
16.	Belparao, Bannakhera range, West Terai	Uttarakhand	22.7.2012	1	Under Scrutiny

	Division, Uttarakhand				
17.	Brahmapuri, Maharashtra	Maharashtra	26.7.2012	1	Poaching
18.	Nilambar South Kerala	Kerala	26.07.2012	1	Under Scrutiny
19.	Gurgaon, Haryana	Haryana	1.8.2012	1	Skin seizure/poaching
20.	Waynad, Kerala	Kerala	6.8.2012	1	Under Scrutiny
21.	Nainital Zoo	Uttarakhand	8.8.2012	1	Old age (Natural)
22.	Pilibhit Division, Deoriya range, UP	Uttar Pradesh	12.8.2012	1	Poaching
23.	Meerut, Uttar Pradesh	Uttar Pradesh	Skin seizure by UP Police		
24.	Udumtore halla, Karnataka	Karnataka	8.9.2012	1	Poaching
25.	Junona range, FDCM, Maharashtra	Maharashtra	10.9.2012	1	Poaching
26.	Nilgiri (N), Eastern Range, Tamil Nadu	Tamil Nadu	11.9.2012	1	Poaching
27.	Seoni Division, Madhya Pradesh	Madhya Pradesh	29.9.2012	2 skins seizure	Poaching
28.	Compt. No. 590, Beat Chorgaon, Chandrapur, Maharashtra	Maharashtra	10.10.2012	1	Poaching
29.	Ratapani, Madhya Pradesh	Madhya Pradesh	18.10.2012	1	Under Scrutiny
30.	Kollagal Territorial Division	Karnataka	18.10.2012	1	Poaching
31.	Tholpetty range of Wayanad WLS	Kerala	13.11.2012	1	Poaching
32.	Badwara range of Katni Forest Division	Madhya Pradesh	18.11.2012	1	Electrocution / Poaching
33.	Wayanad WLS	Kerala	2.12.2012	1	Killed by department
34.	Shahdol, Katni	Madhya Pradesh	9.12.2012	1	Electrocution / Poaching
35.	Khandar, Rajasthan	Rajasthan	23.12.2012	1	Under Scrutiny
36.	Katni, Madhya Pradesh	Madhya Pradesh	26.12.2012	1	Electrocution / Poaching
37.	Naduvattam range of Nilgiri South Division	Tamil Nadu	28.12.2012	1	Natural
38.	Angrim Valley, Arunachal Pradesh	Arunachal Pradesh	30.12.2012	1	Poaching
39.	South Brahmpur range, Brahmpuri Division, Maharashtra	Maharashtra	6.1.2013	1	Poaching
40.	FDCM, Gondia, Maharashtra	Maharashtra	12.1.2013	1	Natural / Other causes
41.	Nagpur Division, Maharashtra	Maharashtra	17.1.2013	1	Poaching
42.	Bhavanisagar range, Thangumarahada section, Gejalatti Beat, Tamil Nadu (Sathyamangalam)	Tamil Nadu	19.1.2013	1	Poaching
43.	Ponnepet range, Virajpet Dvn. Coorg Divn, Karnataka	Karnataka	5.2.2013	1	Poaching

44.	Rajaji National Park, Gohri Range, Uttarakhand	Uttarakhand	7.2.2013	1	Poaching
45.	Orang National Park, Assam	Assam	9.2.2013	1	Poaching
46.	Orang National Park, Assam	Assam	11.2.2013	1	Poaching
47.	Calicut, Kerala	Kerala	14.2.2013	1 skin seizure	Seizure
48.	Katni, Madhya Pradesh	Madhya Pradesh	25.2.2013	1	Poaching
49.	Ramnagar Forest Division, Uttarakhand	Uttarakhand	2.3.2013	1	Under Scrutiny
50.	Dechauri Range, Nainital district, Uttarakhand	Uttarakhand	8.3.2013	1	Prima facie appears to have fallen from hill cliff
51.	Nilgiri South Division, Tamil Nadu	Tamil Nadu	11.3.2013	1	Natural
52.	Kerala	Kerala	14.3.2013	1	Infighting

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**National Tiger Conservation Authority**  
(Centrally Sponsored Scheme of Project Tiger: Tiger Reserve-wise sanction)  
(as on 31.3.2013)

(Rs. in lakhs)

S. No.	Name of Tiger Reserve	State	Release 2012-13
1.	Achanakmar	Chhattisgarh	217.0924
2.	Anamalai	Tamil Nadu	163.191
3.	Bandhavgarh	Madhya Pradesh	334.633
4.	Bandipur	Karnataka	221.543
5.	Bhadra	Karnataka	198.2391
6.	Biligiri Ranganatha Temple	Karnataka	155.52
7.	Buxa	West Bengal	177.20
8.	Corbett	Uttarakhand	160.69
9.	Dampa	Mizoram	468.31
10.	Dandeli-Anshi	Karnataka	136.18
11.	Dudhwa	Uttar Pradesh	334.055
12.	Indravati	Chhattisgarh	69.45
13.	Kalakad Mundanthurai	Tamil Nadu	143.997
14.	Kanha	Madhya Pradesh	4373.17
15.	Kaziranga	Assam	250.286
16.	Kawal	Andhra Pradesh	196.2104
17.	Manas	Assam	0.00
18.	Melghat	Maharashtra	332.746
19.	Mudumalai	Tamil Nadu	138.795
20.	Nagarahole	Karnataka	222.049
21.	Nagarjunsagar	Andhra Pradesh	208.68
22.	Namdapha	Arunachal Pradesh	156.3832
23.	Nameri	Assam	123.608
24.	Pakke	Arunachal Pradesh	263.704
25.	Palamau	Jharkhand	107.440
26.	Panna	Madhya Pradesh	295.905
27.	Parambikulam	Kerala	227.875
28.	Pench(MP)	Madhya Pradesh	128.44
29.	Pench(Mah.)	Maharashtra	232.017
30.	Periyar	Kerala	286.96
31.	Ranthambore	Rajasthan	2834.955
32.	Sahyadri	Maharashtra	61.27
33.	Sanjay-Dubri	Madhya Pradesh	223.88
34.	Sariska	Rajasthan	1255.612
35.	Satkosia	Orissa	142.956
36.	Satpura	Madhya Pradesh	416.3354
37.	Similipal	Orissa	20.80
38.	Sunderban	West Bengal	227.716
39.	Tadoba-Andheri	Maharashtra	222.375
40.	Udanti-Sitanadi	Chhattisgarh	245.92
41.	Valmiki	Bihar	311.064
42.	Sathyamangalam	Tamil Nadu	0.00
<b>Total</b>			<b>16287.2525</b>

Annexure IV

**FORM OF FINANCIAL STATEMENTS (NON-PROFIT ORGANISATIONS)**  
**Name of Entity NATIONAL TIGER CONSERVATION AUTHORITY**  
**BALANCE SHEET AS AT 31.03.2013**

CORPUS/CAPITAL FUND AND LIABILITIES	Schedule	(Amount In ₹)	
		Current Year	Previous Year
Corpus/Capital Fund	1	17,44,92,175	21,33,77,861
Reserves and Surplus	2		
Earmarked/Endowment Funds	3		
Secured Loans and Borrowings	4		
Unsecured Loans and Borrowings	5		
Deferred Credit Liabilities	6		
Current Liabilities and Provisions	7	18,64,854	18,86,060
<b>TOTAL</b>		<b>17,63,57,029</b>	<b>21,52,63,921</b>
<b>ASSETS</b>			
Fixed Assets	8	64,35,820	29,56,096
Investments- From Earmarked/Endowment Funds	9		
Investments-Others	10		
Current Assets, Loans, advances Etc.	11	16,99,21,209	21,23,07,825
Miscellaneous Expenditure (to the extent not written off or adjusted)			
<b>TOTAL</b>		<b>17,63,57,029</b>	<b>21,52,63,921</b>
Significant Accounting Policies	24		
Contingent Liabilities and Notes on Accounts	25		

Annexure V

**FINANCIAL STATEMENTS (NON-PROFIT ORGANISATIONS)**  
**Name of Entity NATIONAL TIGER CONSERVATION AUTHORITY**  
**INCOME & EXPENDITURE ACCOUNT**  
**FOR THE YEAR ENDED ON 31.3.2013**

(Amount In ₹)

<b>INCOME</b>	<b>Schedule</b>	<b>Current Year</b>	<b>Previous Year</b>
Income from Sales/Services	12	NIL	NIL
Grants/Subsidies	13	1,00,00,000	14,71,00,000
Fees/Subscriptions	14	-	NIL
Income from Investments (Income on Investment	15	-	NIL
From Earmarked/Endow.) Funds transferred to Funds		-	NIL
Income from Royalty, publication etc.	16	-	NIL
Interest Earned	17	-	NIL
Other Income	18	1,500	100
<b>TOTAL (A)</b>		<b>1,00,01,500</b>	<b>14,71,00,100</b>
<b>EXPENDITURE</b>			
Establishment Expenses	20	77,55,659	42,94,100
Other Administrative Expenses etc.	21	1,56,46,338	3,03,92,672
Expenditure on Grants, Subsidies etc.	22	2,39,27,600	2,95,18,900
Interest (Recoupment of Imprest Amount)	23	-	1,268
Depreciation (Net Total at the year-end -Schedule 8)	8	15,89,289	7,44,596
<b>TOTAL (B)</b>		<b>4,89,18,886</b>	<b>6,49,51,536</b>
Excess of Income over Expenditure (A-B)		-3,89,17,386	8,21,48,564
Transfer to Special Reserve (Specify each)		NIL	NIL
Transfer to/from General Reserve		NIL	NIL
Balance Being Surplus Carried to Corpus/Capital Fund		NIL	NIL
Balance Being Deficit Carried to Corpus/Capital Fund		NIL	NIL
Significant Accounting Policies	24		
Contingent Liabilities and Notes on Accounts	25		

(Annexure- VI)

**FINANCIAL STATEMENTS (NON-PROFIT ORGANISATIONS)**  
**Name of Entity NATIONAL TIGER CONSERVATION AUTHORITY**  
**SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31.03.2013**  
**SCHEDULE 1 - CORPUS/CAPITAL FUND**

(Amount in ₹)

<b>SCHEDULE 1 - CORPUS/CAPITAL FUND:</b>	<b>Current Year</b>	<b>Previous Year</b>
<b>SCHEDULE 1 - CORPUS/CAPITAL FUND:</b>		
Balance as at the beginning of the year	21,33,77,861	13,12,29,297
Add: Balance of net income	(3,89,17,386)	8,21,48,564
Transferred from the Income and Expenditure Account	31,700	-
Deduct: Balance of net expenditure	-	-
Transferred from the Income and Expenditure Account	-	-
<b>BALANCE AS AT THE YEAR - END</b>	<b>17,44,92,175</b>	<b>21,33,77,861</b>

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**FINANCIAL STATEMENTS (NON-PROFIT ORGANISATIONS)**  
**Name of Entity NATIONAL TIGER CONSERVATION AUTHORITY**  
**SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31.03.2013**  
**SCHEDULE 7 -CURRENT LIABILITIES AND PROVISIONS**

(Amount in ₹)

<b>A. CURRENT LIABILITIES:</b>	<b>Current Year</b>	<b>Previous Year</b>
1. Acceptances		
2. Sundry Creditors:	NIL	NIL
a) For Goods	NIL	NIL
b) Others	NIL	NIL
3. Advances Received	NIL	NIL
4. Interest accrued but not due on:	NIL	NIL
a) Secured Loans/Borrowings	NIL	NIL
b) Unsecured Loans/Borrowings	NIL	NIL
5. Other current Liabilities	NIL	NIL
(i) Grant in Aid refundable to Ministry	NIL	NIL
(ii) Unspent Grant in Aid refundable to Ministry	NIL	NIL
(iii) Security refundable	18,64,854	18,86,060
<b>TOTAL (A)</b>	<b>18,64,854</b>	<b>18,86,060</b>
<b>B. PROVISIONS:</b>		
1. For Taxation	NIL	NIL
2. Gratuity	NIL	NIL
3. Superannuation/Pension	NIL	NIL
(i) Contribution to superannuation scheme	NIL	NIL
4. Accumulated Leave Encashment	NIL	NIL
5. Trade Warranties	NIL	NIL
5. Other (Specify)	NIL	NIL
<b>TOTAL (B)</b>	<b>NIL</b>	<b>NIL</b>
<b>TOTAL (A + B)</b>	<b>18,64,854</b>	<b>18,86,060</b>

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NAME OF ENTITY : NATIONAL TIGER CONSERVATION AUTHORITY  
 SCHEDULE FORMING PART OF BALANCE SHEET AS AT 31.03.2013

Schedule 8 - Fixed Assets

DESCRIPTION	GROSS BLOCK				DEPRECIATION				NET BLOCK				
	Cost/Value at the beginning of the year (a)	Additions during the year 1.4.2012-30.9.2012	1.10.2012-31.3.2013	Deductions during the year	Cost/Value at the year end (d)	Depreciation Rate % (e)	As at the beginning of the year (f)	On additions during the year 1.4.2011-30.9.2011	1.10.2011-31.3.2012	On Deductions during the year	Total Up to the year-end (i)	As at the end of current year (d - f - g)	As at the end of previous year
Vehicle	6,30,562	-	-	-	6,30,562	15%	94,584	80,397	-	-	1,74,961	4,55,581	5,35,978
Furniture, Fixtures	8,14,477	1,425	23,402	-	8,39,304	10%	53,817	76,209	1,170	-	1,31,196	7,08,108	7,60,660
Office equipment	13,89,005	43,99,332	64,264	-	58,52,601	15%	2,07,027	8,37,197	4,820	-	10,49,044	48,03,557	11,81,978
Computer/ peripheral	8,33,835	4,29,434	1,51,156	-	14,14,425	60%	3,70,491	5,35,667	45,347	-	9,51,505	4,62,920	4,63,344
Library Books	32,813	-	-	-	32,813	60%	18,677	8,482	-	-	27,159	5,654	14,136
<b>TOTAL FOR THE CURRENT YEAR</b>	<b>37,00,692</b>	<b>48,30,191</b>	<b>2,38,822</b>	<b>-</b>	<b>87,69,705</b>		<b>7,44,596</b>	<b>15,37,962</b>	<b>51,337</b>	<b>-</b>	<b>23,33,885</b>	<b>64,35,820</b>	<b>29,56,096</b>
<b>PREVIOUS YEAR</b>	<b>26,22,309</b>	<b>73,744</b>	<b>10,04,639</b>	<b>-</b>	<b>37,00,692</b>		<b>5,40,830</b>	<b>44,246</b>	<b>1,59,647</b>	<b>-</b>	<b>7,44,596</b>	<b>29,56,096</b>	<b>26,22,309</b>

Annexure VIII

(45)

Annexure IX

**FINANCIAL STATEMENTS (NON-PROFIT ORGANISATIONS)**  
**Name of Entity NATIONAL TIGER CONSERVATION AUTHORITY**  
**SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31.03.2013**  
**SCHEDULE 11 -CURRENT ASSETS, LOANS, ADVANCES ETC.**

(Amount in ₹)

A. CURRENT ASSETS:	Current Year	Previous Year
1. Inventories:		
a) Stores and Spares	NIL	NIL
b) Loose Tools	NIL	NIL
c) Stock-in-trade	NIL	NIL
Finished Goods	NIL	NIL
Work-in-progress	NIL	NIL
Raw Materials	NIL	NIL
2. Sundry Debtors:		
a) Debts Outstanding for a period exceeding 6 months	NIL	NIL
b) Others	NIL	NIL
3. Cash balances in hand (including cheques/drafts and imprest)		
Cash- In - Hand	NIL	NIL
Imprest	50,000	38,000
4. Bank Balances:		
a) With Scheduled Banks:		
- On Current Accounts	9,92,98,428	14,56,18,594
- On Deposit Accounts (includes margin money)		
- On Savings Accounts	NIL	NIL
b) With non-Schedules Banks:		
-On Current Accounts	NIL	NIL
- On Deposit Accounts	NIL	NIL
- On Savings Accounts	NIL	NIL
5. Post Office-Savings Accounts	NIL	NIL
<b>TOTAL (A)</b>	<b>9,93,48,428</b>	<b>14,56,56,594</b>

Name of Entity NATIONAL TIGER CONSERVATION AUTHORITY  
SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31.03.2013

SCHEDULE 11 -CURRENT ASSETS, LOANS, ADVANCES ETC.

(Amount in ₹)

B. LOANS, ADVANCES AND OTHER ASSETS:	Current Year	Previous Year
1. Loans:		
a) Staff		
b) Other Entities engaged in activities/ objectives similar to that of the Entity		NIL
c) Other (specify)		NIL
2. Advances and other amounts recoverable in cash or for value to be received	1,28,68,267	89,46,717
a) On Capital Account		NIL
b) Prepayments		
Expenses Reimbursable by M/O External Affairs		NIL
Advance Payment to CPWD	65,91,030	65,91,030
Advance Payment to Wildlife Institute of India, Dehradun	3,91,44,000	3,91,44,000
Advance Payment to NICSI	7,96,002	7,96,002
Advance Payment to M/s Binomial Solutions	1,11,65,982	1,11,65,982
c) Others		
Petrol Account		
Telephone Account To MTNL for GPRS	7,500	7,500
3. Income Accrued:		
a) On Investments from Earmarked/ Endowment funds		
b) On Investments- Others		
c) On Loans and Advances		
d) Others (includes income due unrealized - Rs.....)		
4. Claims Receivable		
<b>TOTAL (B)</b>	<b>7,05,72,781</b>	<b>6,66,51,231</b>
<b>TOTAL (A + B)</b>	<b>16,99,21,209</b>	<b>21,23,07,825</b>

**FORM OF FINANCIAL STATEMENTS (NON-PROFIT ORGANISATIONS)**  
 Name of Entity *NATIONAL TIGER CONSERVATION AUTHORITY*  
**SCHEDULES FORMING PART OF INCOME & EXPENDITURE ACCOUNT**  
**FOR THE PERIOD/YEAR ENDED 31.03.2013**  
**SCHEDULE 13 - GRANTS/SUBSIDIES**

<b>(Irrevocable Grants &amp; Subsidies Received)</b>	<b>Current Year</b>	<b>Previous Year</b>
1. Central Government	1,00,00,000	14,71,00,000
2. State Government(s)	NIL	NIL
3. Government Agencies	NIL	NIL
4. Institutions/Welfare Bodies	NIL	NIL
5. International Organisations	NIL	NIL
6. Others (Specify) /Bank TRFMisc.	1500	100
<b>Total</b>	<b>1,00,01,500</b>	<b>14,71,00,100</b>
<b>TOTAL</b>	<b>1,00,01,500</b>	<b>14,71,00,100</b>

**FINANCIAL STATEMENTS (NON-PROFIT ORGANISATIONS)**  
**Name of Entity NATIONAL TIGER CONSERVATION AUTHORITY**  
**SCHEDULES FORMING PART INCOME & EXPENDITURE**  
**FOR THE PERIOD/YEAR ENDED 31.03.2013**  
**SCHEDULE 14 - FEES/SUBSCRIPTIONS**

(Amount in Rs.)

<b>FEES/SUBSCRIPTIONS</b>	<b>Current Year</b>	<b>Previous Year</b>
1. Entrance Fees	NIL	NIL
2. Annual Fees/Subscriptions	NIL	NIL
3. Seminar/Program fees	NIL	NIL
4. Consultancy Fees	NIL	NIL
5. Others (Specify)	NIL	NIL
<b>TOTAL</b>	<b>NIL</b>	<b>NIL</b>

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**FINANCIAL STATEMENTS (NON-PROFIT ORGANISATIONS)**  
**Name of Entity NATIONAL TIGER CONSERVATION AUTHORITY**  
**SCHEDULES FORMING PART INCOME & EXPENDITURE**  
**FOR THE PERIOD/YEAR ENDED 31.03.2013**  
**SCHEDULE 18 - OTHER INCOME**

	Current Year	Previous Year
1. Profit on Sale/disposal of Assets :	NIL	NIL
a) Owned Assets	NIL	NIL
b) Assets acquired out of grants, or received free of cost	NIL	NIL
2. Export Incentives realized	NIL	NIL
3. Fees for Miscellaneous Services (RTI)	NIL	NIL
4. Miscellaneous		
(a) Earlier year provisions written off	NIL	NIL
(b) GIA earlier issued refunded back	NIL	NIL
(c) Interest received on staff advance	NIL	NIL
(d) Value of assests received back from the Ministry	NIL	NIL
<b>Total</b>	NIL	NIL

Annex XIII

**Name of Entity NATIONAL TIGER CONSERVATION AUTHORITY**  
**SCHEDULES FORMING PART OF INCOME & EXPENDITURE**  
**FOR THE PERIOD/YEAR ENDED 31.3.2013**  
**SCHEDULE 20 - ESTABLISHMENT EXPENSES**

	<b>Current Year</b>	<b>Previous Year</b>
a) Salaries and Wages	76,83,391	38,83,420
b) Allowances and Bonus		2,94,686
c) Contribution to Provident Fund		72,000
d) Contribution to Other Fund (CGEIS) Superannuation Scheme		1,320
e) Staff Welfare Expenses	33,268	
f) Expenses on Employees' Retirement & Terminal Benefits		
g) Others (specify) Honorarium	39,000	42,674
Leave Salary & Pension Contributions		
<b>TOTAL</b>	<b>77,55,659</b>	<b>42,94,100</b>

<b>FORM OF FINANCIAL STATEMENTS (NON-PROFIT ORGANISATIONS)</b>		
<b>Name of Entity NATIONAL TIGER CONSERVATION AUTHORITY</b>		
<b>SCHEDULES FORMING PART OF INCOME &amp; EXPENDITURE</b>		
<b>FOR THE PERIOD /YEAR ENDED 31.03.2013</b>		
<b>SCHEDULE 21- OTHER ADMINISTRATIVE EXPENSES ETC.</b>		
	(Amount in ₹)	
	Current Year	Previous Year
a. Purchases		-
b. Conveyance and Cartage	76,275	6,242
c. Repairs and maintenance	85,257	-
d. Vehicles Running Expenses	1,23,104	1,35,596
e. Vehicles Maintenance	1,17,099	2,43,497
f. Postage, Telephone and Communication Charges.	5,07,162	2,85,746
g. Printing, Publication and Periodicals	12,45,991	5,63,238
h. Travelling Expenses	60,09,997	27,02,084
i. Legal Expenses	92,300	7,255
j. Hospitality Expenses	83,714	4,21,946
k. Advertisement and Publicity	-	-
l. Professional Charges	8,975	3,05,682
m. Others (specify)	-	-
n. Distribution Expenses	-	-
o. TDS	-	1,35,797
p. Printing & Stationery	3,94,510	6,49,278
q. Imp. Expenses	-	-
r. Cartage & Carriage inwards	-	-
s. Bank Charges	-5,827	2,685
t. Other Office expenses	1,06,508	3,95,535
u. Membership fees	-	-
v. Dificit on sale of unusable assets	-	-
<b>Total (I)</b>	<b>88,45,065</b>	<b>58,54,581</b>
<b>II. Payments Against Various Projects</b>		
Expenses on Training, Workshop & Expenses on Research Projects	30,78,389	72,16,115
	37,22,884	1,73,21,976
<b>Total (II)</b>	<b>68,01,273</b>	<b>2,45,38,091</b>
<b>III. Unspent balance of GIA refundable to Ministry.</b>	-	-
<b>TOTAL (I+II+III)</b>	<b>1,56,46,338</b>	<b>3,03,92,672</b>



**FINANCIAL STATEMENTS (NON-PROFIT ORGANISATIONS)**  
**Name of Entity NATIONAL TIGER CONSERVATION AUTHORITY**  
**SCHEDULES FORMING PART OF INCOME & EXPENDITURE**  
**FOR THE PERIOD/YEAR ENDED 31.03.2013**  
**SSCHEDULE 22-EXPENDITURE ON GRANTS, SUBSIDIES ETC.**

(Amount in ₹)

	Current Year	Previous Year
a. Grants given to Tiger Conservation Foundations	2,39,27,600	2,95,18,900
Unspent grants-in aid refundable to ministry	NIL	NIL
b. Subsidies given to Institutions/ Organisations	NIL	NIL
<b>Total</b>	<b>2,39,27,600</b>	<b>2,95,18,900</b>

Annexure XVA

**FORM OF FINANCIAL STATEMENTS (NON-PROFIT ORGANISATIONS)**  
**Name of Entity NATIONAL TIGER CONSERVATION AUTHORITY**  
**RECEIPTS AND PAYMENTS FOR THE PERIOD/YEAR ENDED 31.3.2013**

Amount In ₹

RECEIPTS	CURRENT YEAR	PREVIOUS YEAR	PAYMENTS	CURRENT YEAR	PREVIOUS YEAR
<b>I. Opening Balances</b>			<b>1. Expenses</b>		
(a) Cash in Hand			(a) Establishment Expenses (corresponding to Schedule 20)	77,55,659	42,94,100
Imprest	38,000	5,000			
(b) Bank Balances			(b) Administrative Expenses (corresponding to Schedule 21)	1,56,39,636	3,03,92,672
i) In current accounts	14,56,18,594	7,25,75,086	©Grant in aid to Tiger Foundation for phase IV Monitoring	2,39,27,600	2,95,18,900
ii) In deposit accounts					
iii) Savings accounts					
<b>II. Grants Received</b>			<b>II. Payments made against funds for various projects</b>		
(a) From Government of India	1,00,00,000	14,71,00,000	(Name of the fund or project should be shown along with the particulars of payments made for each project)		
(b) From State Government					
(c) From other sources (details)					
(Grants for capital & revenue exp. To be shown separately)					
			iii) Research Projects		
			iv) Training, Workshop Conference		
Contd./.....					
<b>III. Income on Investments from</b>			<b>III. Investments &amp; deposit made</b>		
(a) Earmarked/Endow Funds			(a) Out of Earmarked/Endowment funds		

(b) Own Funds (Oth. Investment)			(b) Out of own funds (Investments- Others)		
<b>IV. Interest Received</b>			<b>IV. Expenditure on fixed Assets &amp; capital work-in-progress</b>		
(a) On bank deposits			(a) Purchase of fixed assets	50,69,013	10,78,383
(b) Loans, Advances etc.			(b) Expenditure on capital work-in-progress		
<b>V. Other Income (Specify)</b>			<b>V. Refund of surplus money/loans</b>		
Refund of Bank Charges			(a) to the Government of India		
Refund of Excess payment made SO(NTCA) previous year			(b) to the State Government		
Sale Proceeds of old articles/items	1500	100	(c) to other providers of funds		
<b>VI. Amount Borrowed</b>			<b>VI. Finance Charges (Interest)</b>		
<b>VII. Any other receipts (give details)</b>			<b>VII Other Payments (Specify)</b>		
(a) Misc. Receipts			(a) Payment of TDS		
(i) Unspent balance of Advance refunded by CPWD			(b) Security Deposit (Released)	25000	25000
(b) Interest on Scooter Adv.			(c) Amount adjustable(By other deptt.)		
(c) Security deposit	3794	-	(d)Advances Recoverable in Cash or for Value to be Recovered	39,16,252	87,13,269

Contd./.....

(d) Recovery of Advances	31,700		(d) Staff advances		
(e) Recovery of TDS			(e) Payment to other Depatt, (Recoveries from pay bills)		
(f) Staff car recovery			(f) Bank Charges		
(g) License fee			(g)recoupment of imprest advance	12,000	1,268
(h) Recovery from pay bills, adjustable by other Departments					
(i) Sale proceed of assets					
(j) GIA refunded					

(k) Leave salary & Pension contribution payment made last yer received back			VIII. Closing Balances		
			(a) Cash in Hand		
			Imprest	50,000	38,000
			(b) Bank Balances		
			(i) In current accounts	9,92,98,428	14,56,18,594
			(ii) In deposit accounts		
			(iii) Savings accounts		
<b>TOTAL</b>	<b>15,56,93,588</b>	<b>21,96,80,186</b>		<b>15,56,93,588</b>	<b>21,96,80,186</b>

## SCHEDULE 24 - SIGNIFICANT ACCOUNTING POLICES

### 1. Basis of Accounting

The financial statements are prepared in accordance with generally accepted accounting policies.

### 2. Fixed Assets.

Fixed Assets are stated at cost of acquisition less accumulated depreciation.

### 3. Depreciation

Depreciation on Fixed Assets is provided on written down value at the rates provided in the Income Tax Act. Assets acquired after September have been depreciated at half the rate of depreciation prescribed for an asset.

### 4. General

Accounting policies not specifically mentioned are otherwise in consonance.

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**SCHEDULE 25 - CONTINGENT LIABILITIES AND NOTES ON ACCOUNTS**

**1. Contingent Liabilities**

Claims against the Entity not acknowledged as debts - NIL (Previous year NIL)

**2. Capital Commitments**

Estimated value of contracts remaining to be executed on Capital account and not provided for (net of advances) - NIL (Previous year NIL)

**3. Current assets, Loans and Advances**

In the opinion of the Management, the Current Assets, Loans and Advances have a value on realisation in the ordinary course of business at least to the aggregate amount shown in the Balance Sheet.

4. Corresponding figures for the previous year have been regrouped / rearranged

5. Schedule 1 to 25 annexed form an integral part of the Balance Sheet as at 31st March, 2013 and the Income and expenditure Account ended on that date.

कार्यालय प्रधान निदेशक लेखापरीक्षा  
वैज्ञानिक विभाग, नई दिल्ली

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सं.प्र.नि.वै.वि./प.ले./एस.ए.आर./NTCA, New Delhi /2013-14/463

दिनांक:

सेवा में,

13 FEB 2014

**Member Secretary,**  
National Tiger Conservation Authority,  
Annexe-V, Shahjahan Road, Bikaner House,  
New Delhi-110011

विषय: वर्ष 2012-13 के लिए National Tiger Conservation Authority, New Delhi का  
पृथक लेखापरीक्षा प्रतिवेदन

महोदय,

मुझे वर्ष 2012-13 के लिए National Tiger Conservation Authority, New Delhi का  
पृथक लेखापरीक्षा प्रतिवेदन अग्रेषित करने का निर्देश हुआ है।

संसद के दोनों सदनों में प्रस्तुत करने से पहले वर्ष 2012-13 के वार्षिक लेखों को संस्थान के  
शासी निकाय द्वारा अनुमोदित किया/अपनाया जाए तथा इस संबंध में शासी निकाय द्वारा जारी किया  
गया रेजोल्यूशन ऑडिट को भेजा जाए। प्रत्येक दस्तावेज जो संसद में प्रस्तुत किया जाए उसकी तीन  
प्रतियाँ इस कार्यालय तथा दो प्रतियाँ भारत के नियंत्रक महालेखापरीक्षक को अग्रेषित की जाए। संसद  
के दोनों सदनों में प्रस्तुत करने की तिथियाँ भी इस कार्यालय को सूचित की जाए।

संलग्नक:- पृथक लेखापरीक्षा प्रतिवेदन

भवदीय,

Amee

उप.निदेशक (पर्या.ले.)

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EAG (NTCA)

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**Separate Audit Report of the Comptroller and Auditor General of India on the Accounts of National Tiger Conservation Authority, New Delhi for the year ended 31 March 2013**

We have audited the attached Balance Sheet of National Tiger Conservation Authority, New Delhi (NTCA) as on 31<sup>st</sup> March 2013, the Income & Expenditure Account and the Receipts & Payment Account for the year ended on that date under Section 19(2) of the Comptroller & Auditor General's (Duties, Powers & Conditions of Service) Act, 1971 read with Section 38E (5) of the Wildlife (Protection) Act, 1972 as amended in 2006. These financial statements are the responsibility of the NTCA's management. Our responsibility is to express an opinion on these financial statements based on our audit.

2. This Separate Audit Report contains the comments of the Comptroller and Auditor General of India (CAG) on the accounting treatment only with regard to classification, conformity with the best accounting practices, accounting standards and disclosure norms, etc. Audit observations on financial transactions with regard to compliance with the Law, Rules & Regulations (Propriety and Regularity) and efficiency-cum-performance aspects, etc., if any, are reported through Inspection Reports/ CAG's Audit Reports separately.

3. We have conducted our audit in accordance with auditing standards generally accepted in India. These standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatements. An audit includes examining, on a test basis, evidences supporting the amounts and disclosure in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of financial statements. We believe that our audit provides a reasonable basis for our opinion.

4. Based on our audit, we report that:

- (i) We have obtained all the information and explanations, which to the best of our knowledge and belief were necessary for the purpose of our audit.
- (ii) The Balance Sheet, Income & Expenditure Account and Receipts & Payments Account dealt with by this report have been drawn up in the format approved by the Ministry of Finance.
- (iii) In our opinion, proper books of accounts and other relevant records have been maintained by the NTCA as required under Section 38R of the Wildlife (Protection) Act, 1972 as amended, in so far as it appears from our examination of such books.
- (iv) We further report that:

**A. Balance Sheet**

**1. Assets**

- 1.1. "Tiger Protection Expenses" amounting to Rs. 3,97,680/- paid to M/S Aaranyak, Guwahati for Non-Invasive Genetic Monitoring of tiger in Tiger Reserve was included as Office Equipments in Schedule 8-Fixed Assets resulting in an overstatement of assets and understatement of expenditure by Rs. 3,97,680/-.



## B. Grants-in-aid

Out of the grants in aid of Rs. 1538.16 lakh (which included Rs. 100.00 lakh grants received during the year and Rs. 1438.16 lakh unutilized grants of previous year), available the Institute could utilize a sum of Rs. 563.20 lakh leaving a balance of Rs. 974.96 lakh as utilized grant as on 31 March 2013.

## C. Management letter

Deficiencies which have not been included in the Audit Report have been brought to the notice of the Member Secretary, National Tiger Conservation Authority through a management letter issued separately for remedial/corrective action.

- (v) Subject to our observations in the preceding paragraphs, we report that the Balance Sheet, Income & Expenditure Account and Receipts & Payments Account dealt with by this report are in agreement with the books of accounts.
- (vi) In our opinion and to the best of our information and according to the explanations given to us, the said financial statements read together with the Accounting Policies and Notes on Account, and subject to the significant matters stated above and other matters mentioned in Annexure to this report give a true and fair view in conformity with accounting principles generally accepted in India.
- a. In so far as it relates to the Balance Sheet, of the state of affairs of the National Tiger Conservation Authority, New Delhi as at 31 March 2013 and
- b. In so far as it relates to Income & Expenditure Account of the deficit for the year ended on that date.

For and on behalf of the C&AG of India

  
Principal Director of Audit (SD)

Place: New Delhi

Date: 13/2/14

## Annexure-I

1. **Adequacy of Internal Audit System:** Internal audit of the NTCA has been conducted up to 2011-12.

2. **Adequacy of Internal Control System:** There is scope of improvement in the internal control system of the NTCA as the following deficiencies were noticed:

(i) Sub-head/activity wise budget was not provided under Capital and Revenue head. As such the Expenditure Control Register to ensure that the expenditure under various Sub-heads remained within budget allocations was not maintained. This was also pointed out in previous audit reports, but no corrective action was taken.

(ii) Receipt in form GAR VI to be issued by DDO, in token of receipt of refund of any advance was not issued. No fidelity bond is provided by Cashier in token of surety as per GFR's.

(iii) Accession register of library books was not maintained properly (Govt. rule books and Annual Reports of NTCA also entered and book not numbered properly.) in the absence of which the number of library books shown in the Annual Accounts could not be verified.

(iv) **Maintenance of Asset Register:** The Asset Register is not maintained in prescribed form. Entries of non-assets like bag, torch, clocks, cup-sets etc were also made in this register. Assets worth Rs.5.31 lakh and Rs. 4.67 lakh purchased for Branch offices during 2011-12 & 2012-13 were not entered in the asset register. Amount of assets purchased for the regional offices during 2012-13 was not furnished. The Asset register is not complete and to that extent the actual number of particular type of asset available at the end of 31.03.2013, number of assets purchased during a particular year and the depreciated value of assets according to the year of purchase of asset could not be ascertained. Most of the entries in the stock register were not attested.

(v) Consumable and non-consumable stock Items were being purchased and issued without requisition/demand application. Further issue of stock items and balance stock were not indicated in the stock register and entries in the stock register were not attested.

3. **Statutory dues:** NTCA is regular in Payment of statutory dues.

4. **System of Physical Verification of Assets:** The physical verification of assets had not been carried out since inception till 31/03/2013. In the absence of physical verification of assets the availability of fixed assets amounting to Rs.64.36 lakhs as shown in the balance sheet during the financial year 2012-13 could not be verified in Audit.

  
Dy. Director (EA)



Gurveen Sidhu

*Annex V*  
प्रधान निदेशक, लेखा परीक्षा  
वैज्ञानिक विभाग  
ए० जी० सी० आर० भवन, इन्द्रप्रस्थ एस्टेट  
नई दिल्ली - 110 002  
PRINCIPAL DIRECTOR OF AUDIT,  
SCIENTIFIC DEPARTMENTS,  
A.G.C.R. BUILDING, I.P. ESTATE,  
NEW DELHI-110 002

No. PDA (SD)/EA/SAR/NTCA/  
2013-14/463-465 Dated:

13 FEB 2014

Sir,

I have audited the annual accounts of the **National Tiger Conservation Authority, New Delhi** for the year 2012-13 and have issued the Audit Report thereon vide letter dated..... During the course of audit, some deficiencies were noticed which were of a relatively minor nature and were, therefore, not included in the Audit Report and are now enclosed in the **Annexure**. These are being brought to your notice for remedial and corrective action.

Yours Sincerely,

*Gurveen Sidhu*

Encl: As above

**Shri Rajesh Gopal,**  
Member Secretary  
National Tiger Conservation Authority  
Annexe - V, Shahjahan Road  
Bikaner House,  
New Delhi -11

## Annexure

1. NTCA paid Rs. 372.20 lakh during 2010-11 (Rs. 111.66 lakh) 2011-12 (Rs. 223.32 lakh) and 2012-13 (Rs. 37.22 lakh) to M/s Binomial Solution Pvt. Ltd. for development of "e-eye" Real Time Anti-poaching 24\*7 surveillance system in Corbet Tiger Reserve. The above amount was paid under Service Contract Agreement, which included components of Computer Peripheral etc., lease line connectivity, Civil works and Consultancy. Out of Rs. 372.20 lakh, Rs. 37.22 lakh was shown as office Equipment under Schedule 8-Fixed Assets, Rs. 186.10 lakh was shown as advance payment under Schedule-11 and balance Rs. 148.88 lakh was treated as expenditure during 2011-12. As the payment under the project was capital in nature, Rs. 334.98 lakh (372.20 lakh - Rs. 37.22 lakh) may be capitalized under respective head of assets in Schedule 8-Fixed Assets. NTCA in its reply dated 11th October, 2013 stated that a detailed report on completion of the work is yet to be received, thereafter the amount will be shown according to their heads.
2. CPWD advance of Rs. 65.91 lakh is outstanding since 2008-09. The assets created out of this advance are being used since 2009-10. It is therefore suggested that advance may be got adjusted immediately and depreciation may be provided to these assets since the year, assets were put to use.
3. NTCA had a closing Bank balance of Rs. 72575086/- as on 31.03.2011, Rs. 145618594/- as on 31.03.2012 and Rs. 99298428/- as on 31.03.2013. These amounts have been kept in the current account with Bank of Maharashtra during 2011-12 & 2012-13. Keeping the huge amount in current account had resulted in substantial loss of interest. This was also pointed out in previous audit report, but no action has been taken in this regard. It is therefore suggested that the current account may be changed with saving bank account so that interest @ of 4% could be earned on unutilised grant available in the Bank of Maharashtra. NTCA received Capital grant of Rs. 10 crore on 2.1.2012. Out of this amount only Rs. 33.90 lakh has been utilized in March 2013. During previous audit report it was suggested that the unspent amount of capital grant may be invested in short term fixed deposits. In this regard NTCA invested Rs. 9.66 crore @ of 7.25% per annum in short term fixed deposit only in 27<sup>th</sup> June 2013, resulting in huge loss of interest.
4. Utilisation Certificates of Grants –in-aid of Rs. 1300.70 lakhs paid in 39 cases to various Tiger Reserves for phase IV monitoring and to WII and Others for research works is still outstanding as on 31.03.2013.
5. Grants-in-aids register was not maintained, in the absence of which status of outstanding UC's of grants-in-aid released by NTCA to various Tiger Reserves/ Grantee institutions upto 31-03-2013 is not available. The register may be maintained now and compliance may be shown to audit.
6. **Improper depiction of Assets**  
Schedule 11 Current Assets, Loans, Advances etc., 2. Advances and other amounts recoverable in cash or for value to be received. Closing Balance under this head as on 31.3.2012 is Rs. 89,46,717. Opening balance as on 1-4-2013 was however taken as 89,13,713, the Difference of (Rs. 33000) may be reconciled. Under this head Rs. 40,55,115 released during 2012-13 also includes Rs. 3389600 released to CPWD. This amount may be excluded from this head and the same may be included under Advance Payments to CPWD.

## 7 Receipt and Payment Account

Under head "Advances Recoverable in cash or for value to be received" Rs. 39,16,252/- has been shown. However ledger balance of this head is Rs. 40,55,115/-. The difference of Rs. 1,38,863/- may be explained. Under Administrative expenses corresponding to schedule 21 Rs. 1,56,39,636/- has been shown against ledger figure of Rs. 5646338/-. The difference of Rs. 6,702/- may be explained.

### 8. Wrong depiction of previous year's balances

Schedule 8- Previous year balance under the head addition during the year from 1-10-2011 to 31-3-2012 has been depicted as Rs. 2,89,586/- instead of Rs. 10,04,639/-.

Total under Schedule 11 during the previous year was shown as Rs. 13,05,18,048/- instead of correct figure of Rs. 21,23,07,825/-.

In schedule 13-Grants/Subsidies, Row 1 'Central Govt.' was shown as Rs. 14,29,98,000/- instead of Rs. 14,71,00,000/- and Row 6 'Others' was shown as Rs. 570/- Instead of Rs. 100 and Total should be Rs. 14,71,00,100/-.

Schedule 20- Establishment Expenses, previous year balance under row a) Salaries and Wages was shown Rs. 22,78,548/- instead of correct figure of Rs. 38,83,420/-. Last year's figures in row b) Allowance and Bonus - Rs. 2,94,686, in row c) Contribution to Provident fund Rs. 72,000/-, in row d) Contribution to other fund Rs. 1,320/- and in row g) Others, Honorarium - Rs. 42,674/-, were not indicated. Similarly total of Rs. 22,78,548/- was indicated in place of correct figure of Rs. 42,94,100/-.

Schedule 22 was re-named as Annexure XV. The sentence "Schedule 22- Expenditure on Grants/ subsidies etc." may be included under the name of the head. Previous year figure under the head Grants given to Tiger Conservation Foundation is shown as Rs. 2,39,27,600/- instead of correct figure of Rs. 2,95,18,900/-.

Necessary corrections may be made now in the Annual Accounts of NTCA for the year 2012-13.

9. As per GFR, while releasing grants to quasi-Government Institutions, a condition should be laid down that assets acquired wholly or substantially out of Government grants, shall not be disposed off without obtaining the prior approval of the sanctioning authority.

It was however observed, that this conditions has neither been incorporated in the Memorandum of Understanding (MOU) nor in the sanction order releasing funds to the WII, Tiger Reserves and others. List of assets created by WII out of Grants released by NTCA amounting to Rs. 796.34 lakhs to WII & Rs. 504.35 lakh to various Tiger Reserves & Others upto 2012-13 may be obtained from them.

10. The figure of Office Equipments in schedule-8 shows purchase of Office Equipments worth Rs. 44,63,596/-. Ledger balance of office equipments shows assets of Rs. 44,25,456/-, resulting in difference of Rs. 38,140/- (Rs. 44,63,596 - Rs. 44,25,456), which may be reconciled.

  
Dy. Director (EA)

**MINISTRY OF ENVIRONMENT AND FORESTS  
(NATIONAL TIGER CONSERVATION AUTHORITY)  
NOTIFICATION**

New Delhi, the 15th October, 2012

**No. 15-31/2012-NTCA.**—Whereas, the National Tiger Conservation Authority under clause (c) of sub-section (1) of Section 38-O of the Wild Life (Protection) Act, 1972 has the power to lay down normative standards for tourism activities and guidelines for project tiger for tiger conservation in the buffer and core areas of tiger reserves to ensure their due compliance;

And whereas, the Central Government is committed to frame comprehensive guidelines with regard to fixation of core areas and buffer areas and tourism including welfare and religious tourism as contemplated under clause (c) of sub-section (1) of section 38-O of the Wildlife (Protection) Act, 1972 as well with regard to the protection of tigers in forest and non-forest areas;

Now, therefore, in pursuance of the powers conferred under clause (c) of sub-section (1) of section 38-O of the Wild Life (Protection) Act, 1972 (53 of 1972) and in supersession of the Guidelines issued by the National Tiger Conservation Authority vide number F.No. 3-1/2003-PT, dated the 21<sup>st</sup> February, 2008, except as regard to things done or omitted to be done before such supersession, the National Tiger Conservation Authority hereby makes the following guidelines to be followed for the purpose of tiger conservation in the buffer and core area of tiger reserves and lay down normative standards for tourism activities in tiger reserves, namely:—

1. Short title. These guidelines may be called the National Tiger Conservation Authority (Normative Standards for Tourism activities and Project Tiger) Guidelines, 2012.

**PART-A**

**GUIDELINES UNDER SECTION 38-O (c) OF THE WILD LIFE (PROTECTION) ACT, 1972 FOR PROJECT TIGER**

**Chapter-I**

**2. Tiger conservation.**

- (i) The Central Government, through the Ministry of Environment and Forests provides technical guidance and financial support to various State Governments, *inter alia*, for tiger conservation.
- (2) The State Governments are responsible for day-to-day management and implementing the policies and plans relating to wildlife conservation.

### 3. Background.

3.1 "Project Tiger", now ongoing as a Centrally Sponsored Scheme, was launched by the Government of India in 1973 in nine reserves of different States (Assam, Bihar, Karnataka, Madhya Pradesh, Maharashtra, Odisha, Rajasthan, Uttar Pradesh and West Bengal) over an area of approximately 14,000 sq. km. Since then, the project coverage has expanded considerably to 41 tiger reserves (TR), encompassing an area of around 63874.68 sq. km. in 17 tiger States with 35123.95 sq. km. of notified core/ critical tiger habitats and 28750.73 sq. km. of buffer / peripheral areas in 17 tiger States. This amounts to 2% of the country's geographical area. The total core/critical tiger habitat of 41 tiger reserves amount to 5.2% of the country's forest cover. There are 668 protected areas in the country (September, 2012), out of which 41 have been designated as core/critical tiger habitats (6%). The in-principle approval has been accorded by the National Tiger Conservation Authority for creation of five new tiger reserves, and the sites are: Pilibhit (Uttar Pradesh), Ratapani (Madhya Pradesh), Sunabeda (Odisha), Mukundara Hills (including Darrah, Jawahar Sagar and Chambal Wildlife Sanctuaries) (Rajasthan) and Satyamangalam (Tamil Nadu). Final approval has also been accorded to Kudremukh (Karnataka) for declaring as a tiger reserve. Also the concerned State Governments have been advised to send proposals for declaring the following areas as tiger reserves: (i) Bor (Maharashtra), (ii) Suhelwa (Uttar Pradesh), (iii) Nagzira-Navegaon (Maharashtra), (iv) Guru Ghasidas National Park (Chhattisgarh), (v) Mhadei Sanctuary (Goa) and (vi) Srivilliputhur Grizzled Giant Squirrel / Megamalai Wildlife Sanctuaries / Varushanadu Valley (Tamil Nadu).

3.2 Due to ongoing conservation efforts under the Project in designated tiger reserves, India has the maximum number of tigers along with its source areas amongst the 13 tiger range countries in the world. Project Tiger has put the endangered tiger on an assured path of recovery, as revealed in the country level assessment of tiger, co-predators, prey and habitat. The recent (2010) findings in this context indicate a poor status of tiger population in areas outside tiger reserves and protected areas. The tiger population, by and large, in tiger reserves and protected areas of such States are viable, while requiring ongoing conservation efforts.

3.3 Project Tiger has a holistic, ecosystem approach. Its core-buffer strategy, protection and development initiatives gave a new perspective to the concept of wildlife management in our country and is a "role model" for *in-situ* conservation.

### 4. Present status of tiger, co-predators, prey and habitat.

4.1 The second countrywide assessment of the status of tigers, co-predators and their prey was released in March, 2011. This assessment of 2010 is the second such countrywide assessment using the refined methodology as recommended by the Tiger Task Force. The findings indicate a countrywide 20% increase in the number of tigers in the year 2010 with an estimated number of 1706 (1520-1909). In the year 2006 estimated number of tigers was 1411 (1165-1657). A decline of 12.6% in tiger occupancy from connecting habitats has also been

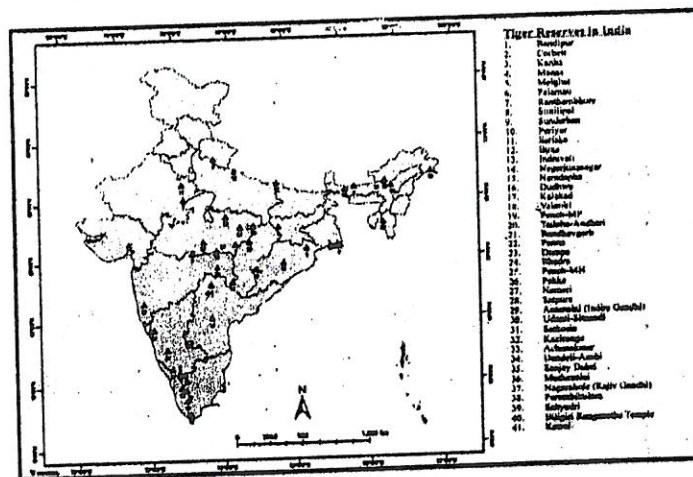
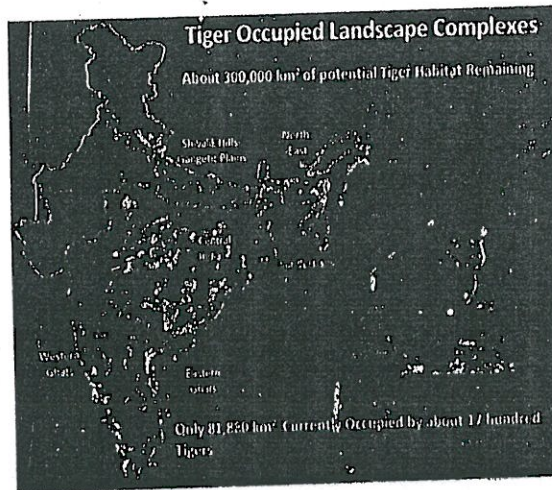
- reported. This has occurred in peripheral and dispersal areas having low densities outside tiger reserves and tiger source populations.
- 4.2 The increase in the number of tigers is due to the fact that tiger populations in Uttarakhand, Tamil Nadu, Maharashtra and Karnataka have shown an increase in tiger density. The inclusion of Sunderbans, some portions of North East and parts of Maharashtra have also contributed to the increase.
- 4.3 Tiger occurrence and density were dependent on availability of habitats that were remote, with minimal human disturbance and having a high availability of large wild prey (chital, sambar, gaur, and wild pig).
- 4.4 Tiger occupied forests in India were classified into following **landscape complexes, namely:**
- (a) Shivalik Hills and the Gangetic Plain,
  - (b) Central India
  - (c) Eastern Ghats,
  - (d) Western Ghats,
  - (e) North-Eastern Hills and Brahmaputra Plains, and
  - (f) Sunderbans.
- 4.4.1 In **Shivalik hills and Gangetic Plain Landscape** tigers occupied 6712 km<sup>2</sup> of forested habitats with an estimated population of 353 (320 to 388) in five separate populations.
- 4.4.2 **Central Indian Landscape** (inclusive of Nagarjunasagar Srisailam of the Eastern Ghats) tiger presence was reported from 39,017 km<sup>2</sup> with an estimated population of 601 (518 to 685) distributed in 20 tiger populations with a few other sporadic occurrences.
- 4.4.3 **Western Ghats Landscape** was 29,607 km<sup>2</sup> and registered a decline of about 11.5% compared to that of 2006. The current tiger population was estimated at 534 (500 to 568) registering a rise of about 32 % since 2006.
- 4.4.4 Tiger occupancy of 4,900 km<sup>2</sup> and population numbers between 118 to 178 tigers should be considered as minimal for the **North East** since systematic coverage of the entire landscape was not done.
- 4.4.5 Population estimation of the **Sundarbans** tigers was done with a combination of camera trapping and satellite telemetry. A tiger density of 4.3 (se 0.3) tigers per 100 km<sup>2</sup> was estimated. The total population for the Indian Sundarbans was estimated to be between 64 to 90 tigers.
- 4.5. Currently, Nagarhole-Bandipur-Mudumalai-Wayanad-Moyar-Segur, Corbett, Sundarbans (India and Bangladesh) and Kaziranga-KarbiAnglong have the required number of tiger for long term survival without immigration. The remaining tiger populations require habitat connectivity for genetic and demographic viability.

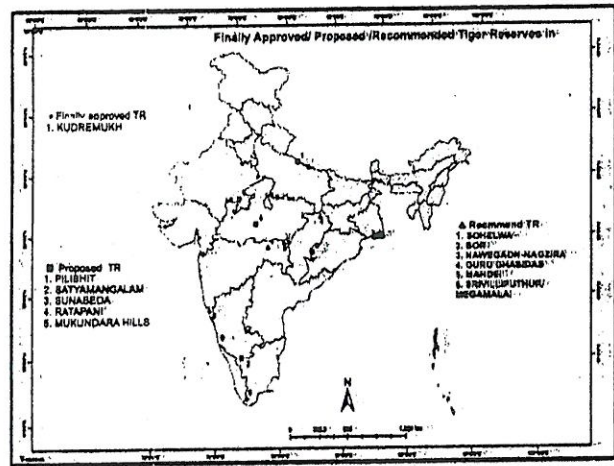


## 4.6. Comparative status of tiger (2006 and 2010)

Landscape complex	Tiger estimation 2006			Tiger estimation 2010		
	Statistical Lower limit	Population estimate	Statistical Upper limit	Statistical Lower limit	Population estimate	Statistical Upper limit
Shivalik-Gangetic plains	259	297	335	320	353	388
Central Indian & Eastern ghats	486	601	718	518	601	685
Western ghats	336	402	487	500	534	568
Northeastern hills and Brahmaputra flood plains	84	100	118	118	148	178
Sunderbans	Not assessed	Not assessed	Not assessed	64	70	90
<b>Total</b>	<b>1165</b>	<b>1411</b>	<b>1657</b>	<b>1520</b>	<b>1706</b>	<b>1909</b>

4.7. The Tiger Occupied Landscape Complex, the tiger reserves in India and the proposed / recommended Tiger Reserves in India has been shown in following maps:





### 5. Management Effectiveness Evaluation of Tiger Reserves.

- 5.1 Independent assessment of tiger reserves based on International Union for Conservation of Nature criteria, as adapted to our conditions, was done for the first time in 2005-2006 for 28 tiger reserves. This assessment was peer reviewed by International Union for Conservation of Nature experts. Both assessments as well as peer review reports were placed before both the Houses of the Parliament in 2006.
- 5.2 The second round of independent assessment based on refined criteria has been done in 2010-2011 for 39 tiger reserves. This is also based on globally used framework, as adapted to our conditions. In all, five independent teams conducted the evaluation using 30 indicators. The framework consisted of 6 elements: context, planning, inputs, process, outputs and outcomes.
- 5.3 The 39 tiger reserves were grouped in landscape clusters as followed in country level tiger estimation. An additional category comprising of tigers in 'red corridor' (areas affected by left wing extremism) was also included. The outcome of the evaluation is as below:

Rating	Number of Tiger Reserves	Percentage
Very Good	15	38
Good	12	31
Satisfactory	8	21
Poor	4	10
<b>Total</b>	<b>39</b>	<b>100</b>

- 5.4 The Management Effectiveness Evaluation ratings of 2010-2011 and 2005-2006 have been compared for 28 tiger reserves, which were part of 2005-2006 evaluation. The 'very good' rating increased by 4%, the 'good' rating increased by 3%, 'satisfactory' rating decreased by 7%, while there is a status quo for the 'poor' rating.

**Table-1: Management Effectiveness Evaluation Score (% age) of Landscape Clusters (2010-11)**

Cluster Number	Cluster Name	States	No. of Tiger Reserves	Mean Management Effectiveness Evaluation Score%	Management Effectiveness Evaluation Score Range%
(1)	(2)	(3)	(4)	(5)	(6)
I	Shivalik- Gangetic Plain Landscape Complex and Central Indian Landscape Complex and Eastern Ghats Landscape Complex	Uttar Pradesh, Uttarakhand, Rajasthan, Maharashtra	8	64	56-73
II	Central Indian Landscape Complex and Eastern Ghats Landscape Complex	Madhya Pradesh	6	79	56-88
III	Shivalik-Gangetic Plain Landscape Complex and Central Indian Landscape Complex and Eastern Ghats Landscape Complex	Bihar, Chhattisgarh, Odisha, Andhra Pradesh, Jharkhand	8	42	33-63
IV	Western Ghats Landscape Complex	Karnataka, Kerala, Tamil Nadu	9	75	63-80
V	North East Hills and Brahmaputra Flood Plains and Sundarbans	Arunachal Pradesh, Assam, Mizoram, West Bengal	8	66	56-77
	<b>TOTAL</b>		39	65	33-88

**Table-2(a): Category-wise outcome of MEE Process (2010-11)**

S. No.	Category	Name of Tiger Reserve
1.	Very Good	Annamalai, Bandhavgarh, Bandipur, Bhadra, Dandeli-Anshi, Kalakad-Mundanthurai, Kanha, Kaziranga, Mudumalai, Parambikulam, Pench (Madhya Pradesh), Periyar, Satpura, Sundarbans

2.	Good	Buxa, Corbett, Dampa, Dudhwa, Manas, Melghat, Nagarole, Pakke, Pench (Maharashtra), Ranthambhore, Tadoba-Andhari
3.	Satisfactory	Achanakmar, Nameri, Namdapha, Sanjay, Sayadari, Valmiki
4.	Poor	Satkosia

**Table-2(b): Category-wise outcome of MEE Process (2010-11) of Tiger Reserves falling in the 'Red Corridor'**

S. No.	Category	Name of Tiger Reserve
1.	Very Good	---
2.	Good	Nagarjunasagar-Srisailem
3.	Satisfactory	Similipal
4.	Poor	Indravati, Palamau, Udanti-Sitanadi

**Table-2(c): Category-wise outcome of MEE Process (2010-11) of Tiger Reserves, which had recently lost all tigers**

S. No.	Category	Name of Tiger Reserve
1.	Very Good	Panna
2.	Good	---
3.	Satisfactory	Sariska
4.	Poor	---

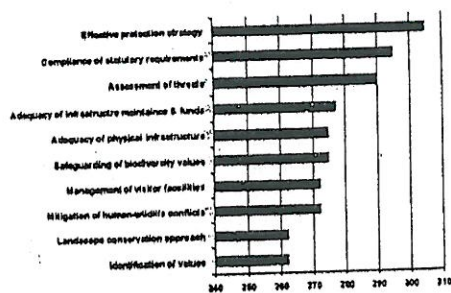
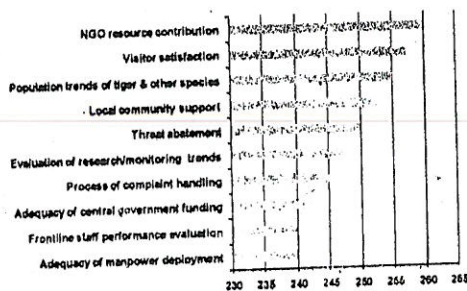
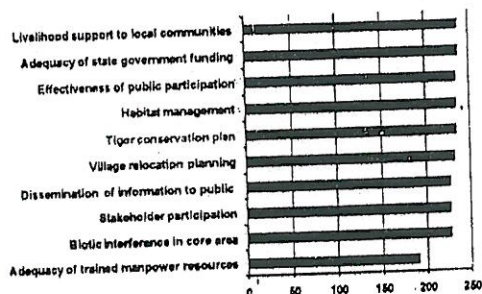
**Summary of MEE Process of Tiger Reserves**

Rating	Number of Tiger Reserves	Percentage
Very Good	15	38
Good	12	31
Satisfactory	8	21
Poor	4	10
<b>TOTAL</b>	<b>39</b>	

**Table-3: Comparison of MEE Rating of Tiger Reserves in 2005-06 and 2010-11**

Category	2005-06	%	2010-11	%
Very Good	09	32	10	36
Good	10	36	11	39
Satisfactory	07	25	05	18
Poor	02	07	02	07
<b>TOTAL</b>	<b>28</b>		<b>28</b>	

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**Table-4 (a): Performance of Headline Indicators (Top Ten)****Table-4(b): Performance of Headline Indicators (Middle Ten)****Table-4(c): Performance of Headline Indicators (Bottom Ten)**

## 6. General reasons for tiger decline in areas outside tiger reserves.

The reasons for tiger decline in areas outside tiger reserves and protected areas are as below:

- (i) Degradation of forest status outside Protected Areas and Tiger Reserves owing to:
  - (a) human pressure;
  - (b) livestock pressure; and
  - (c) ecologically unsustainable land uses.
- (ii) Fragmentation leading to loss of gene flow from source populations.

- (iii) Loss of forest quality in terms of prey biomass.
- (iv) Tiger deaths due to man-animal conflict.
- (v) Tiger deaths due to poaching.
- (vi) Loss of reproduction owing to disturbance on account of heavily used infrastructure like highways, etc.
- (vii) Lack of adequate protection in outside areas.
- (viii) Insurgency or law and order problems.

#### 7. Present approach to tiger conservation.

Owing to habitat fragmentation on account of ecologically unsustainable land uses, biotic pressure and poaching, the following approach is imperative.

##### 7.1 Consolidating and strengthening the "source" population of tiger and its prey in tiger reserves, protected areas and tiger bearing forests.

This involves the following active managerial interventions, namely:

- (i) Protection, antipoaching operations and intelligence networking;
- (ii) Strengthening of infrastructure within tiger reserves;
- (iii) Creation of inviolate space through relocation;
- (iv) Capacity building of frontline staff, local people and officers and strengthening of training centres and training in related fields, including enforcement, intelligence networking, tourism activities, etc.

##### 7.2 Managing the "source-sink dynamics" by restoring habitat connectivity.

This involves the following managerial intervention, namely:

- (i) actively providing incentives to local people for the eco-system services and corridor values provided by them by not degrading the forest (payment for eco-system services);
- (ii) incentives to local people for taking up plantations and protecting natural root stocks besides preventing free grazing;
- (iii) encouraging stall feeding of cattle and fostering marketing of dairy products;
- (iv) providing subsidized gas connection to local people for reducing their dependency on forest towards fuel wood collection.

##### 7.3. Importance of a buffer zone vis-à-vis the tiger land tenure dynamics.

7.3.1 Tiger is a territorial animal, which advertises its presence in an area and maintains a territory. It is a well known fact that partial overlaps of resident male territories in an area do occur. However, the degree of overlap increases lethal internecine combats. Several female territories do occur in an overlapping manner within the territory of a male tiger. The tiger land tenure dynamics ensures presence of

prime adult inhabitants which act as source populations, periodically replacing old males by young adults from nearby forest areas (Plate 1).

7.3.2 The ongoing study and analysis of 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 areas) 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 or habitat. Therefore, buffer areas with forest connectivity are imperative for tiger dynamics, since such areas foster sub adults, young adults, transients and old members of the population. The young adults periodically replace the resident ageing males and females from the source population area.

7.3.3 The buffer area, absorbs the "shock" of poaching pressure on populations of tiger and other wild animals. In case of severe habitat depletion in buffer areas, the source population would get targeted and eventually decimate.

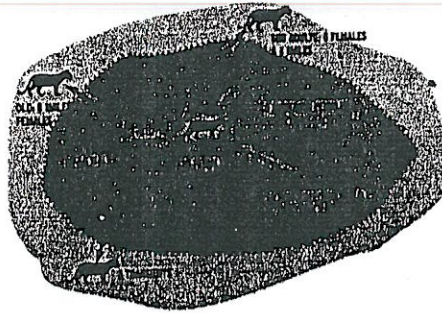
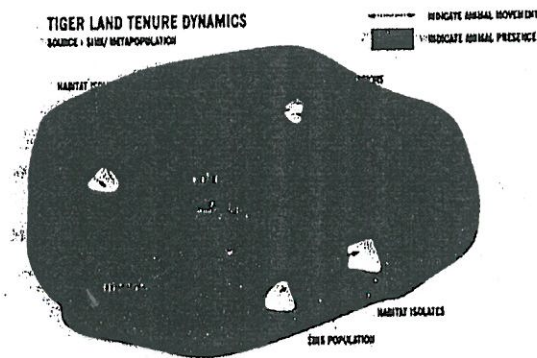


Plate 1: Tiger Land Tenure Dynamics. Minimum population of tigers in breeding age needed for maintaining a viable population (80-100 tigers), which require an inviolate space of 800-1200 square kilometres

#### 7.4 Value of Corridors.

7.4.1 Isolated populations of wild animals face the risk of extinction owing to insularization. Habitat fragmentation adversely affects wildlife due to decreased opportunity available for wild animal movement from different habitats. This in turn prevents gene flow in the landscape. The equilibrium theory of island biogeography predicts greater species richness in large wildlife areas or in smaller areas connected by habitat corridors owing to increased movements of wild animals. Such connecting habitats, apart from facilitating animal movements also act as refuge for spill over populations from the core areas. They may also act as smaller "source" by facilitating breeding and movement of native wildlife populations to colonize adjoining habitats. Natural linear features like rivers or mountain ranges may act as boundaries for wildlife populations. However, disturbance of corridors on account of human interventions (highways, canals, industries, roads, railway tracks, transmission lines) is deleterious to wildlife.

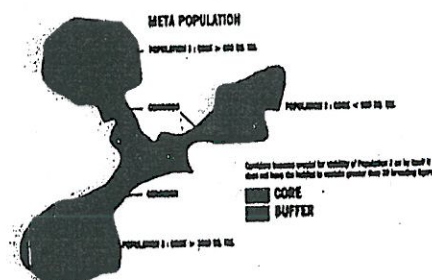
7.4.2 "Source" populations are those which produce a surplus of animals which are potential colonizers. On the other hand, "Sinks" are those populations in which deaths exceed births, and their persistence depends on regular influx of immigrants (Plate 2).



*Plate 2: Tiger Land Tenure Dynamics*

7.4.3 Patches of suitable habitats in the landscape may support wildlife populations (local populations), which may be separated from one another on account of various disturbance factors. Collectively, such patches of local populations are known as "regional populations". This general situation of sub divided populations interacting with one another in a landscape to supplement new genes through movement, is known as a "meta population". In the context of tiger land tenure dynamics, the core-buffer areas conform to the "island-mainland" or "coresatellite" form of meta population model. The core area of a tiger reserve provides a source of colonizers for the surrounding local populations of different sizes and varying degrees of isolation. The core area may not readily experience extinction owing to the protection inputs for maintaining its inviolate nature. However, the surrounding isolated patches in the buffer area may suffer from local extinction if wildlife concerns are not mainstreamed in the area. Therefore, a meta population management approach is required for the buffer zone as well as corridors to facilitate.—

- (a) supplementing declining local tiger populations;
- (b) facilitating re-colonization in habitat patches through restorative management;
- (c) providing opportunity to tiger for colonizing new areas through patches of habitats (stepping stones) between isolated populations (Plate 3).

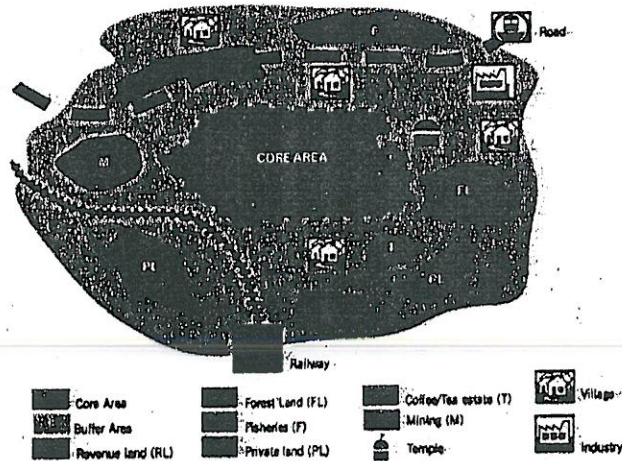


*Plate 3 : Meta population dynamics. Corridors become crucial for maintaining viability of Population 2 as by itself it does not have the habitat to sustain greater than 20 breeding tigers*

**7.5 Mainstreaming tiger and wildlife concerns in the landscape through smart practices with other sectors to prevent and address man-tiger conflicts.** Involvement of different sectors, such as: forestry, agriculture, welfare activities



through the district Collector sector, tourism, fisheries, tea-coffee estates, road and rail transport, industry, mining, thermal power plants, irrigation projects, temple tourism and communication projects operating in the landscape will be instrumental in effectively addressing human-tiger conflicts besides being helpful in mainstreaming tiger and wildlife concerns.



**Plate 4: Production Sectors in a Tiger Landscape**

#### 8. Milestone Initiatives taken for strengthening tiger conservation.

Several milestone initiatives have been taken in the last few years to strengthen tiger conservation in the country. Certain recommendations of the Tiger Task Force constituted by the National Board for Wildlife have been implemented. These initiatives, *inter alia*, include the following, namely:

- 8.1. Amendment of the Wild Life (Protection) Act, 1972 making enabling provisions for constituting the National Tiger Conservation Authority and the Tiger and Other Endangered Species Crime Control Bureau.
- 8.2. Enhancement of punishment for offence in relation to the core area of a tiger reserve or where the offence relates to hunting in the tiger reserves or altering the boundaries of tiger reserves, etc.
- 8.3. Strengthening of antipoaching activities, including special strategy for monsoon patrolling, by providing funding support to tiger reserve States, as proposed by them, for deployment of antipoaching squads involving ex-army personnel or home guards, apart from workforce comprising of local people, in addition to strengthening of communication and wireless facilities.
- 8.4. Constitution of the National Tiger Conservation Authority with effect from the 4<sup>th</sup> September, 2006, for strengthening tiger conservation by, *inter alia*, ensuring normative standards in tiger reserve management, preparation of reserve specific tiger conservation plan, laying down annual audit report before Parliament, constituting

State level Steering Committees under the Chairmanship of Chief Ministers and establishment of Tiger Conservation Foundation.

8.5. Constitution of a multidisciplinary Tiger and Other Endangered Species Crime Control Bureau (Wildlife Crime Control Bureau) with effect from the 6<sup>th</sup> June, 2007 to effectively control illegal trade in wildlife.

8.6. The in-principle approval has been accorded by the National Tiger Conservation Authority for creation of five new tiger reserves, and the sites are: Pilibhit (Uttar Pradesh), Ratapani (Madhya Pradesh), Sunabeda (Odisha), Mukundara Hills (including Darrah, Jawahar Sagar and Chambal Wildlife Sanctuaries) (Rajasthan) and Satyamangalam (Tamil Nadu). Final approval has been accorded to Kudremukh (Karnataka) for declaring as a tiger reserve. The State Governments have been advised to send proposals for declaring the following areas as tiger reserves: (i) Bor (Maharashtra), (ii) Suhelwa (Uttar Pradesh), (iii) Nagzira-Navegaon (Maharashtra), (iv) Guru Ghasidas National Park (Chhattisgarh), (v) Mhadei Sanctuary (Goa) and (vi) Srivilliputhur Grizzled Giant Squirrel / Megamalai Wildlife Sanctuaries / Varushanadu Valley (Tamil Nadu).

8.7. The revised Project Tiger guidelines have been issued to State Governments for strengthening tiger conservation, which apart from ongoing activities, *inter alia*, include financial support to States for enhanced village relocation or rehabilitation package for people living in core or critical tiger habitats (from Rs. 1 lakh per family to Rs. 10 lakhs per family), rehabilitation or resettlement of communities involved in traditional hunting, mainstreaming livelihood and wildlife concerns in forests outside tiger reserves and fostering corridor conservation through restorative strategy to arrest habitat fragmentation.

8.8. A scientific methodology for estimating tiger (including co-predators, prey animals and assessment of habitat status) has been evolved and mainstreamed. The findings of this estimation and assessment are bench marks for future tiger conservation strategy.

8.9. An area of 35123.9547 sq. km. has been notified by 17 Tiger States as core or critical tiger habitat under section 38V of the Wild Life (Protection) Act, 1972, as amended in 2006.

8.10. Financial and technical help is provided to the State Governments under various Centrally Sponsored Schemes, such as Project Tiger and Integrated Development of Wildlife Habitats for enhancing the capacity and infrastructure of the State Governments for providing effective protection to wild animals.

#### International Cooperation

8.11. India has a bilateral understanding with Nepal on controlling trans-boundary illegal trade in wildlife and conservation, apart from a protocol on tiger conservation with China.

8.12. A protocol has been signed in September, 2011 with Bangladesh for conservation of the Royal Bengal Tiger of the Sunderban.

8.13. A sub-group on tiger and leopard conservation has been constituted for cooperation with the Russian Federation.

8.14. A Global Tiger Forum of Tiger Range Countries has been created for addressing international issues related to tiger conservation.

8.15. During the 14<sup>th</sup> meeting of the Conference of Parties to CITES, which was held from 3<sup>rd</sup> to 15<sup>th</sup> June, 2007 at The Hague, India introduced a resolution along with China, Nepal and the Russian Federation, with direction to Parties with operations breeding tigers on a commercial scale, for restricting such captive populations to a level supportive only to conserving wild tigers. The resolution was adopted as a decision with minor amendments. Further, India made an intervention appealing to China to phase out tiger farming and eliminate stockpiles of Asian big cats' body parts and derivatives. The importance of continuing the ban on trade of body parts of tigers was emphasized.

8.16. Based on India's strong intervention during the 62<sup>nd</sup> meeting of the Standing Committee of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) at Geneva from 23-27 July, 2012, the Convention on International Trade in Endangered Species of Wild Fauna and Flora Secretariat has issued a notification No. 2012/054 dated the 3<sup>rd</sup> September, 2012 to Parties to fully implement Decision 14.69 and report to the Secretariat by 25 September, 2012 (Progress made on restricting captive breeding operations of tigers etc.).

8.17. As a part of active management to rebuild Sariska and Panna Tiger Reserves where tigers have become locally extinct, reintroduction of tigers and tigresses have been done.

8.18. Special advisories issued for in-situ build up of prey base and tiger population through active management in tiger reserves having low population status of tiger and its prey.

#### Creation of Special Tiger Protection Force (STPF)

8.19. The policy initiatives announced by the Finance Minister in his Budget Speech of the 29<sup>th</sup> February, 2008, *inter alia*, contains action points relating to tiger protection. Based on the one time grant of Rs. 50.00 crore provided to the National Tiger Conservation Authority (NTCA) for raising, arming and deploying a Special Tiger Protection Force, the proposal for the said force has been approved by the competent authority for 13 tiger reserves. Rs. 93 lakhs each has been released to Corbett, Ranthambhore and Dudhwa Tiger Reserve for creation of STPF during 2008-2009. Since then, the guidelines of the STPF have been revised for deploying forest personnel in place of Police as an option-II, with scope for involving local people like the Van Gujjars. During the year 2010-2011 and 2011-2012, an amount of Rs. 270 lakhs has been provided to the Similipal Tiger Reserve for raising, arming and deploying the STPF. The States of Karnataka and Maharashtra have already deployed the STPF.

8.20. In collaboration with TRAFFIC-INDIA, an online tiger crime data base has been launched, and Generic Guidelines for preparation of reserve specific Security Plan has been evolved.

**Recent initiatives**

- 8.21. Implementing a tripartite Memorandum of Understanding (MOU) with tiger States, linked to fund flows for effective implementation of tiger conservation initiatives.
- 8.22. Rapid assessment of tiger reserves done.
- 8.23. Special crack teams sent to tiger reserves affected by left wing extremism and low population status of tiger and its prey.
- 8.24. Chief Ministers of States having tiger reserves affected by left wing extremism and low population status of tiger and its prey addressed for taking special initiatives.
- 8.25. Steps taken for modernizing the infrastructure and field protection, besides launching 'Monitoring system for Tigers' Intensive Protection and Ecological Status (M-STrIPES)' for effective field patrolling and monitoring.
- 8.26. Steps taken for involvement of Non-Governmental Experts in the ongoing all India tiger estimation.
- 8.27. Initiatives taken for improving the field delivery through capacity building of field officials, apart from providing incentives.
- 8.28. Action initiated for using Information Technology to strengthen surveillance in tiger reserves.
- 8.29. The second round of country level tiger status assessment completed in 2010, with the findings indicating an increase with a tiger population estimate of 1706, lower and upper limits being 1520 and 1909 respectively, as compared to the last country level estimation of 2006, with an estimate of 1411, lower and upper limits being 1165 and 1657, respectively.
- 8.30. The second round of independent assessment of Management Effectiveness Evaluation of Tiger Reserves done in 2010-2011 for 39 tiger reserves based on globally used framework.
- 8.31. Increase in the allocation for Project Tiger with additional components.
- 8.32. Providing special assistance for mitigation of human-tiger conflicts in problematic areas.
- 8.33. As an outcome of the fourth Trans-border Consultative Group Meeting held in New Delhi, a joint resolution has been signed with Nepal for biodiversity and tiger conservation.
- 8.34. Regional Offices of the National Tiger Conservation Authority sanctioned at Nagpur, Bengaluru and Guwahati.
- 8.35. Launching of Phase-IV tiger reserve level monitoring.

8.36. The Revised Cost Estimate of Project Tiger has also been approved by the competent authority in August, 2011 by enhancing the allocation for the XIth Plan period from Rs.650 crore of central assistance to Rs. 1216.86 crore. The upward revision has been necessitated due to increased action for relocation of villages from the notified core and critical tiger habitats as also inclusion of additional components.

**9. Thrust areas for the XII Plan period.**

- 9.1. **Stepping up protection** by supporting the States for raising, arming and deploying the Special Tiger Protection Force (so far, the STPF has been constituted only in Karnataka for Nagarahole and Maharashtra for Tadoba-Andhari and Pench; funding support has been provided to Uttar Pradesh, Uttarakhand and Rajasthan where process of constituting the same is ongoing. Funding has also been provided to Odisha for STPF constitution at Similipal Tiger Reserve).
- 9.2. **Need for enhanced funding support to States for voluntary village relocation** from core areas to provide inviolate space for tigers (800-1200 sq.km.) for a viable population.
- 9.3. **Strengthening infrastructure and habitat management.**
- 9.4. **Use of information technology in wildlife crime prevention.**
- 9.5. **Capacity building of field personnel.**
- 9.6. **Addressing man-wildlife conflicts to prevent revenge killings.**
- 9.7. **Addressing the issue of livelihood dependency in the fringes of core/critical tiger habitats** by supporting the States for managing the buffer/peripheral areas of tiger reserves as a multiple use zone through village level participatory planning for ecodevelopment with reciprocal commitments (out of 41 tiger reserves 41 have notified buffer area). The details of core and critical tiger habitats and buffer and peripheral areas notified by tiger reserves are at Appendices-A and B.
- 9.8. **Launching Phase-IV tiger reserve level continuous monitoring with capacity building.**
- 9.9. **Active management involving translocation of tiger to suitable low density tiger habitats within a landscape.**
- 9.10. **Supporting field oriented research work.**
- 9.11. **Strengthening the Regional Offices of the NTCA at Nagpur, Guwahati and Bengaluru (AIGs posted at Nagpur and Bengaluru Regional Offices; IGFs are required to be posted in the 3 Regional Offices, besides an AIG at Guwahati).**
- 9.12. **Declaring and consolidating new tiger reserves (5 have been given in-principle approval, and for another 6, the States have been advised, besides according approval for one tiger reserve in Karnataka).**



9.13. **Fostering awareness / supporting reserve specific communication strategy** to elicit public support for tiger conservation with the active involvement of Panchayati Raj institutions.

10. **Field strategies with sub-activities.**

10.1 **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.

10.2. **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.**

10.2.1. 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.

10.2.2. 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.

10.2.3. 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.

### 10.3. 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.

### 10.4. 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.

**10.5. 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.

**10.6. 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.

**10.7. 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.

**10.8. 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



### 10.13. 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.

### 10.14. 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 23<sup>rd</sup> 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.

### 10.15. Provision of Project Allowance to staff of Project Tiger.

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

### 10.16. 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.

### 10.17. 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

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.

#### 10.9. Staff development and capacity building.

10.9.1 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.

10.9.2 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.

#### 10.10. 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.

#### 10.11. 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.

10.12. **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.

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.

#### 11. Local livelihood under Project Tiger.

In all, approximately 24 lakh mandays are generated annually with 50% central assistance amounting to around Rs. 24 crores (excluding matching 50% share given by States) under 'Project Tiger'. Many local tribes constitute such local workforce (besides non-tribals), such as 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. The deployment of such local tribals has been fostered and encouraged in the last two years.

#### 12. Details of funding allocation under Project Tiger since inception over various Plan periods.

Project Tiger is an ongoing Centrally Sponsored Scheme of the Ministry of Environment and Forests, launched in 1973. Over the years, the project coverage has expanded considerably. The provisions made in the Five Year Plans for the project since beginning are as below:

Five Year Plan	Rs. in lakhs
(1)	(2)
IV Plan (only 1973-74)	2.53
V Plan (1974-75 to 1978-79)	387.25
Rolling Plan (1979-80)	63.90
VI Plan (1980-81 to 1984-85)	494.86
VII Plan	1475.42
1990-92	700.98
1991-93	549.81
VIII Plan	3890.09
IX Plan	7500.00
X Plan	15000.00
XI Plan	79219.96
<b>TOTAL</b>	<b>109284.8 or 1092.85 crores</b>



**Appendix-A**

**List of core and critical tiger habitats of Tiger Reserves in India, notified under  
the Wildlife (Protection) Act, 1972, as amended in 2006  
(as on 24.09.2012)**

Sl. No.	Year of creation	Name of Tiger Reserve	State	Area of the core / critical-tiger habitat (In Sq. Kms.)
1	2	3	4	5
1	1973-74	Bandipur	Karnataka	872.24
2	1973-74	Corbett	Uttarakhand	821.99
3	1973-74	Kanha	Madhya Pradesh	917.43
4	1973-74	Manas	Assam	840.04
5	1973-74	Melghat	Maharashtra	1500.49
6	1973-74	Palamau	Jharkhand	414.08
7	1973-74	Ranthambore	Rajasthan	1113.364
8	1973-74	Similipal	Odisha	1194.75
9	1973-74	Sunderbans	West Bengal	1699.62
10	1978-79	Periyar	Kerala	881.00
11	1978-79	Sariska	Rajasthan	881.1124
12	1982-83	Buxa	West Bengal	390.5813
13	1982-83	Indravati	Chhattisgarh	1258.37
14	1982-83	Nagarjunsagar	Andhra Pradesh	3721.00**
15	1982-83	Namdapha	Arunachal Pradesh	1807.82
16	1987-88	Dudhwa	Uttar Pradesh	1093.79
17	1988-89	Kalakad-Mundanthurai	Tamil Nadu	895.00
18	1989-90	Valmiki	Bihar	598.45
19	1992-93	Pench	Madhya Pradesh	411.33
20	1993-94	Tadoba-Andhari	Maharashtra	625.82
21	1993-94	Bandhavgarh	Madhya Pradesh	716.903
22	1994-95	Panna	Madhya Pradesh	576.13
23	1994-95	Dampa	Mizoram	500.00
24	1998-99	Bhadra	Karnataka	492.46
25	1998-99	Pench	Maharashtra	257.26
26	1999-2000	Pakke	Arunachal Pradesh	683.45
27	1999-2000	Nameri	Assam	200.00
28	1999-2000	Satpura	Madhya Pradesh	1339.264
29	2008-2009	Anamalai	Tamil Nadu	958.59
30	2008-2009	Udanti-Sitanadi	Chattisgarh	851.09
31	2008-2009	Satkosia	Odisha	523.61
32	2008-2009	Kaziranga	Assam	625.58
33	2008-2009	Achanakmar	Chattisgarh	626.195
34	2008-2009	Dandell-Anshi	Karnataka	814.884
35	2008-2009	Sanjay-Dubri	Madhya Pradesh	812.571

36	2008-2009	Mudumalai	Tamil Nadu	321.00
37	2008-2009	Nagarahole	Karnataka	643.35
38	2008-2009	Parambikulam	Kerala	390.89
39	2009-2010	Sahyadri	Maharashtra	600.12
40	2011-2012	Biligiri Ranganathan Temple	Karnataka	359.10
41.	2012-2013	Kawal	Andhra Pradesh	893.23
		<b>TOTAL</b>		<b>35123.9547</b>

\*\* Government of Andhra Pradesh has notified Gundla Brahmewaram Wildlife Sanctuary as an extended core to Nagarjunasagar Srisaillam Tiger Reserve (NSTR). The extended area is 1194 sq.km. Hence the total core area of NSTR is 3721 sq.km.

### Appendix-B

#### List of Buffer and peripheral areas in India, notified under the Wildlife (Protection) Act, 1972, as amended in 2006 (24.09.2012)

Sl. No.	Year of creation	Name of Tiger Reserve	State	Area of the buffer / peripheral (In Sq. Kms.)
1	2	3	4	5
1	1973-74	Bandipur	Karnataka	584.06
2	1973-74	Corbett	Uttarakhand	466.32
3	1973-74	Kanha	Madhya Pradesh	1134.361
4	1973-74	Manas	Assam	2310.88
5	1973-74	Melghat	Maharashtra	1268.03
6	1973-74	Palarnau	Jharkhand	715.85
7	1973-74	Ranthambore	Rajasthan	297.9265
8	1973-74	Similipal	Odisha	1555.25
9	1973-74	Sunderbans	West Bengal	885.27
10	1978-79	Periyar	Kerala	44.00
11	1978-79	Sariska	Rajasthan	332.23
12	1982-83	Buxa	West Bengal	367.3225
13	1982-83	Indravati	Chhattisgarh	1540.70
14	1982-83	Nagarjunsagar	Andhra Pradesh	1175.51
15	1982-83	Namdapha	Arunachal Pradesh	245.00
16	1987-88	Dudhwa	Uttar Pradesh	1107.9848

17	1988-89	Kalakad-Mundanthurai	Tamil Nadu	706.542
18	1989-90	Valmiki	Bihar	300.93
19	1992-93	Pench	Madhya Pradesh	768.30225
20	1993-94	Tadoba-Andhari	Maharashtra	1101.7711
21	1993-94	Bandhavgarh	Madhya Pradesh	820.03509
22	1994-95	Panna	Madhya Pradesh	1002.42
23	1994-95	Dampa	Mizoram	488.00
24	1998-99	Bhadra	Karnataka	571.83
25	1998-99	Pench	Maharashtra	483.96
26	1999-2000	Pakke	Arunachal Pradesh	515.00
27	1999-2000	Nameri	Assam	144.00
28	1999-2000	Satpura	Madhya Pradesh	794.04397
29	2008-2009	Anamalai	Tamil Nadu	521.28
30	2008-2009	Udanti-Sitanadi	Chattisgarh	991.45
31	2008-2009	Satkosia	Odisha	440.26
32	2008-2009	Kaziranga	Assam	548.00
33	2008-2009	Achanakmar	Chattisgarh	287.822
34	2008-2009	Dandeli-Anshi	Karnataka	282.63
35	2008-2009	Sanjay-Dubri	Madhya Pradesh	861.931
36	2008-2009	Mudumalai	Tamil Nadu	367.59
37	2008-2009	Nagarahole	Karnataka	562.41
38	2008-2009	Parambikulam	Kerala	252.772
39	2009-2010	Sahyadri	Maharashtra	565.45
40	2011-2012	Biligiri Ranganathan Temple	Karnataka	215.72
41.	2012-2013	Kawal	Andhra Pradesh	1125.89
		<b>TOTAL</b>		<b>28750.73</b>

**PART-A****Chapter-II****DETAILED GUIDELINES OF PROJECT TIGER****13. Introduction.**

13.1. 'Project Tiger' is an ongoing Centrally Sponsored Scheme of the Ministry of Environment and Forests. The revised guidelines incorporate the additional activities for implementing the urgent recommendations of the Tiger Task Force, constituted by the National Board for Wildlife, chaired by the Hon'ble Prime Minister. These, inter alia, include support for implementing the provisions of the Wild Life (Protection) Act, 1972 as amended by the Wild Life (Protection) Amendment Act, 2006, which came into force with effect from the 4<sup>th</sup> September, 2006. The activities are as follows:

- (i) antipoaching initiatives;
- (ii) strengthening infrastructure within tiger reserves;
- (iii) habitat improvement and water development;
- (iv) addressing man-animal conflicts;
- (v) co-existence agenda in buffer and fringe areas with landscape approach;
- (vi) deciding inviolate spaces and relocation of villages from critical tiger habitats within a timeframe by providing a better relocation package, apart from supporting States for settlement of rights of such people;
- (vii) rehabilitation of traditional hunting tribes living in and around tiger reserves;
- (viii) providing support to States for research and field equipments;
- (ix) supporting States for staff development and capacity building in tiger reserves;
- (x) mainstreaming wildlife concerns in tiger bearing forests outside tiger reserves, and fostering corridor conservation in such areas through restorative strategy involving local people to arrest fragmentation of habitats;
- (xi) providing safeguards and retrofitting measures in and around tiger reserves and tiger bearing forests for wildlife conservation;
- (xii) strengthening the infrastructure of National Tiger Conservation Authority at the Centre;
- (xiii) carrying out independent monitoring and the evaluation of tiger reserves;
- (xiv) establishment and development of eight new tiger reserves;
- (xv) provision of project allowance to all categories of staff working in tiger reserves;
- (xvi) providing residential amenities to facilitate basic education to children of frontline field staff posted in tiger reserves;
- (xvii) providing assistance to States for fostering ecotourism to benefit local people.

13.2. 'Project Tiger' was launched in April, 1973 with the objective "to ensure maintenance of a viable population of Tigers in India for scientific, economic, aesthetic, cultural and ecological values, and to preserve for all times, areas of

biological importance as a national heritage for the benefit, education and enjoyment of the people”.

13.3. The 'Project Tiger' has been successfully implemented, and at present, there are 41 Tiger Reserves in 17 States, covering an area of 63874.68 sq. km. Apart from the above, 5 have been given in-principle approval, and for another 6, the State Governments have been advised, besides according approval for one tiger reserve in Karnataka. The selection of reserves has been guided by the need to conserve unique ecosystem and habitat types across the geographic distribution of tigers in the country.

13.4. Conservation of endangered species and their habitat, strengthening and enhancing the Protected Area Network, control of poaching, monitoring, research and ensuring people's participation in Wildlife Conservation have been accorded high priority in the National Wildlife Action Plan and the Wildlife Conservation Strategy, 2002.

#### 14. Past funding pattern and major activities supported under the Scheme.

During present plan period, 100% Central Assistance is being made available to States for expenditure on all non-recurring items; for recurring items, the Central Assistance is restricted to 50% of the expenditure, while the matching grant is provided by the Project States. The activities and field inputs under 'Project Tiger', inter alia, include : (Non recurring) strengthening of protection, deployment of armed squads in tiger reserves, creating basic infrastructure for management, roads, wireless, civil works, habitat development, augmenting water resources, compensatory ameliorative measures for habitat restoration, eco-development, village relocation, use of Information Technology in crime detection, establishment of a digitized database in tiger reserves having collaborative linkage with Project Tiger Directorate in the Geographical Information System (GIS) domain, monitoring and evaluation of tiger reserves, monitoring of habitat status, carrying out All India Estimation of Tigers, co-predators and prey animals in the Geographical Information System (GIS) domain with the state of art technology, continuous monitoring of tiger populations in various tiger range States (tiger reserves and other forest areas outside tiger reserves), fostering wildlife viewing for tourists in tiger reserves, providing compensation to villagers for human deaths and livestock depredation by carnivores in tiger reserves, staff welfare measures, providing 'Project Allowance' to all categories of staff working in tiger reserves, establishment of veterinary facility, and fostering research and research projects relating to tiger conservation, replacement and purchase of new vehicles for existing and new tiger reserves to ensure staff mobility. (Recurring) creation and deployment of local work force for patrolling and barriers, habitat improvement, providing salt licks, water facility, fire protection measures, maintenance of various items, publicity and extension and legal assistance.

#### 15. Constitution of the National Tiger Conservation Authority (NTCA).

15.1. The Central Government had launched 'Project Tiger' to promote conservation of the tiger, since the significance of its conservation has ramifications beyond State boundaries. Management of forests and wildlife is primarily the responsibility of concerned States. The field implementation of the project, protection and management in the designated reserves is done by the project States, who also provide



the matching grant to recurring items of expenditure, deploy field staff and officers, and give their salaries. The Project Tiger Directorate of the Ministry of Environment and Forests was mandated with the task of providing technical guidance and funding support.

15.2. The implementation of 'Project Tiger' over the years has highlighted the need for a statutory authority with legal backing to ensure tiger conservation. On the basis of the recommendations of National Board for Wild Life under the Chairmanship of the Hon'ble Prime Minister, a Task Force was set up to look into the problems of tiger conservation in the country. The recommendations of the said Task Force, inter alia include strengthening of 'Project Tiger' by giving it statutory and administrative powers, apart from creating the Wildlife Crime Control Bureau. It has also recommended that an annual report should be submitted to the Central Government for laying in Parliament, so that commitment to 'Project Tiger' is reviewed from time to time, in addition to addressing the concerns of local people. Broadly, the urgent recommendations of the said Task Force are as below:

- (i) Reinvigorating the constitution of governance.
- (ii) Strengthening efforts towards protection of tiger, checking poaching, convicting wildlife criminals and breaking the international trade network in wildlife body parts and derivatives.
- (iii) Expanding the undisturbed areas for tiger by reducing human pressure.
- (iv) Repair the relationship with local people who share the tigers habitat by fielding strategies for coexistence.
- (v) Regenerate the forest habitats in the fringes of the tigers protective enclaves by investing in forest, water and grassland economies of the people.

15.3 The tiger reserves are faced with ecological disturbances and various other problems. Fragmentation of habitats occurs owing to overuse of forest habitats, apart from conflicting land uses leading to loss of habitat. There are also in some cases, significant village population with large number of cattle, which graze in the forests, leading to ecological degradation, apart from major sources of regular or intermittent disturbance, such as temples and commercial entities, such as, tea estates. This also leads to man-animal conflicts, resulting in tiger and prey mortality.

15.4. Several constraints affect field implementation of the project, such as, delayed release of Central Assistance given to the States for Field Units, staff vacancies, ageing of field staff, lack of capacity building initiatives, weak enforcement and monitoring of protection work, etc. The events in the recent past have highlighted the fact that there is a need in the States for greater commitment and vigilance. The field administration managing the tiger reserves require capacity building and supervision.

15.5. There is also an urgent need to strengthen the system at the Central Government level (Project Tiger Directorate), which has the mandate to oversee and guide tiger conservation in the country. Involvement of States and strengthening the field administration, supervision of the project and building a participatory base by including interests of local people living in and around tiger reserves are extremely important.

15.6. Considering the urgency of the situation, 'Project Tiger' has been converted into a statutory authority National Tiger Conservation Authority (NTCA) by providing enabling provisions in the Wild Life (Protection) Act, 1972 through an amendment, namely, the Wild Life (Protection) Amendment Act, 2006. This forms one of the urgent recommendations of the Tiger Task Force appointed by the Prime Minister. The NTCA would address the ecological as well as administrative concerns for conserving tigers, by providing a statutory basis for protection of tiger reserves, apart from providing strengthened institutional mechanisms for the protection of ecologically sensitive areas and endangered species. The Authority would also ensure enforcing of guidelines for tiger conservation and monitoring compliance of the same, apart from placement of motivated and trained officers having good track record as Field Directors of tiger reserves. It would also facilitate capacity building of officers and staff posted in tiger reserves, apart from a time bound staff development plan.

15.7. Despite three decades of 'Project Tiger' and the efforts of the Centre and State Governments, tiger continues to remain one of the most endangered large predators in the world. The causative factors are many, and to name a few, we may mention the important ones like loss of habitat due to agriculture expansion and development, revenge killings by people due to man-animal conflicts and above all, the demand for the body parts and derivatives of tiger in the illegal international market. These factors contribute to the decimation of our in-situ population in the wild. Therefore, continuance of a focused, species-specific, multifaceted, ecosystem project like 'Project Tiger' becomes important and crucial at this juncture to address the threats faced by the tiger and its habitat.

15.8. The three key imperatives in tiger conservation which necessitate a 'project mode' are, namely, a focused approach to prioritize actions, in the interest of tiger conservation (within and outside the tiger reserves), eliciting the support of local stakeholder communities and ensuring the necessary infrastructure for protection and management. Considering the fact that conservation of tiger has ecological and national significance transcending State boundaries, the Central Government provides funding support and technical guidance to States through the ongoing Centrally Sponsored Scheme of Project Tiger and other schemes for wildlife conservation. Tigers are present in the forests of seventeen States in our country at present, which also include their protected areas and tiger reserves.

15.9 The distribution of tigers and their density vary in States due to several ecological and human reasons, such as, the forest cover, terrain, natural prey availability, presence of undisturbed habitat and the quality of managerial efforts taken towards protection. Since tigers are at the top of the ecological "food-chain", their conservation results in the overall conservation of all other species of plants and animals occupying the ecosystem. We can say that tigers are indicators of the well being of the ecosystem. A healthy tiger population indicates that the other ecological components in its habitat are equally robust, since tigers need large amount of prey and good habitat. The investments made in a project of this kind are more than justified.

**16. Ongoing activities and additionalities to be supported under the revised Centrally Sponsored Scheme of Project Tiger.**

**16.1. Anti-poaching activities (ongoing) (non recurring for antipoaching squad and Tiger Protection Force deployment, and recurring for wages towards**

**patrolling camp labourers and watchers).**

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

- (i) Providing 100% support to tiger reserves for raising, arming and deploying Special Tiger Protection Force (STPF)..
- (ii) Deployment of antipoaching squads.
- (iii) Establishing and maintenance of existing patrolling camps/chowkis and deployment of camp labourers for patrolling.
- (iv) Organising vehicular patrolling by constituting squads (Tiger Protection Force), comprising of field staff, labourers and police or SAF or ex-army personnel or homeguards with wireless handset and paraphernalia for apprehending offenders, apart from prescribing a patrolling calendar for the squad.
- (v) Establishing and maintenance of wireless network.
- (vi) Organising surprise raids jointly with the local police in railway stations, local trains, bus-stops, buses, catchers and cafeteria.
- (vii) Ensuring special site-specific protection measures during monsoon as 'Operation Monsoon' – considering the terrain and accessibility of Protected Areas.
- (viii) Deployment of ex-army personnel and home guards.
- (ix) Deployment of local work force for patrolling, surveillance of water holes, manning barriers.
- (x) Procurement of arms and ammunition.
- (xi) Procurement/maintenance of elephant squads.
- (xii) Rewards to informers.
- (xiii) Legal support for defending court cases.
- (xiv) Procurement of vehicles, boats.
- (xv) Procurement field gear, night vision device.

**16.2. Strengthening of infrastructure within Tiger Reserves (ongoing) (non recurring for new civil works and recurring for maintenance).**

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

- (i) Civil Works (staff quarters, family hostels, office improvement, patrolling camp, house keeping buildings, museum, culverts).
- (ii) Maintenance, creation and upgradation of road network.
- (iii) Maintenance and creation of wireless tower.
- (iv) Maintenance and creation of fire watch tower.
- (v) Maintenance and creation of bridges, dams, anicuts.
- (vi) Maintenance, creation of firelines and firebreaks.
- (vii) Maintenance and creation of earthen ponds.
- (viii) Procurement and maintenance of vehicles (Gypsy, Jeep, Truck, Tractor etc.).
- (ix) Habitat improvement works.
- (x) Procurement of hardware, software / Geographical Information System (GIS).
- (xi) Procurement of compass, range finder, Global Positioning System

- (GPS), camera traps.
- (xii) Procurement of satellite imageries for management planning.
- (xiii) Map digitization facility for management planning.
- (xiv) Monitoring system for Tigers' Intensive Protection and Ecological Status (M-STriPES) monitoring.
- (xv) E-surveillance.

### 16.3. Habitat improvement and water development (ongoing) (recurring).

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.

### 16.4. 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) (non recurring).

16.4.1. This would involve:

- (i) Payment of compensation for cattle lifting, death of human beings and crop depredation\* due to wild animals.
- (ii) Creation of crop protection structures.
- (iii) Procurement and deployment traps, cages to catch problematic animals.
- (iv) Procurement of tranquilizing equipments, rescue vehicles and drugs.

16.4.2. The above initiatives are extremely important to avoid as well as redress the "park-people" interface conflicts.

(\* would be supported as per prevailing norms of the State, in the delineated buffer area as explained in Section 38V of the Wild Life (Protection) Act, 1972, as amended in 2006.)

### 16.5. Co-existence agenda in buffer and fringe areas (landscape approach, sectoral integration, ecologically sustainable development programme, livelihood options and eco-tourism) (new activity in case of tiger reserves where buffer has not been notified so far) (non recurring).

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:

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

A comparative assessment of the forest cover status of outer fringe areas of tiger reserves up to a radial distance of 10 kms. has been done in collaboration with the

Forest Survey of India. The States are required to delineate the fringe or buffer area around the core zones of tiger reserves, and submit a Tiger Conservation Plan as required under section 38 V of the Wild Life (Protection) Act, 1972, to ensure wildlife conservation while addressing the livelihood issues relating to local people.

**16.6 Rehabilitation package for traditional hunting tribes living around tiger reserves (new activity) (non recurring).**

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.

**16.7. Research and field equipments (ongoing) (non recurring).**

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 format and protocol used for the Phase-I data collection in the new estimation process should be adopted for day-to-day field monitoring. 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. As decided in the 1<sup>st</sup> meeting of the National Tiger Conservation Authority, the tiger reserves are required to carry out the day to day monitoring of wild animals using the refined process in the GIS domain, which would enable "forecasting" vis-à-vis wildlife protection.

**16.8. Staff development and capacity building (ongoing) (non recurring).**

This would involve:

- (i) Capacity building and training.
- (ii) Providing project allowance and special incentives.
- (iii) Specialized training in the use of Global Information System (GIS), antipoaching operations.
- (iv) Specialized training in jurisprudence and wildlife forensics.
- (v) Study tours for appraisal of good practices in other reserves.
- (vi) Dissemination workshops.
- (vii) Specialized training in park interpretation.
- (viii) Specialized training in management planning.

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.

**16.9. 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 (settlement of rights is a new activity) (non recurring).**

16.9.1. 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 and wildlife habitats of tiger reserves and protected areas may be modified and resettled for providing inviolate spaces to tiger and 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 said Act, 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.

16.9.2. 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 800-1000 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 or 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.

16.9.3. Based on the recommendations of the professional agency, a new package for village relocation and rehabilitation has been proposed, with the following options and norms, which adequately covers the "National Rehabilitation and Resettlement Policy, 2007", while taking into consideration the difficulties and imperatives involved in relocating people living in forest areas.

16.9.4. The proposed package has two options, namely:

**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 and relocation process by the Forest Department.

**Option II –** Carrying out relocation and rehabilitation of village from protected area and tiger reserve by the Forest Department.

(i) In case of option I, a monitoring process involving the District Magistrate of concerned District would be ensured so that the villagers rehabilitate themselves with the package money provided to them. In this regard, a mechanism involving handholding, preferably by external agencies should also be ensured, while depositing

a considerable portion of the amount in the name of the beneficiary in a nationalized bank for obtaining income through interest generated.

(ii) In case of option II, the following package (per family) is proposed, at the rate of Rs. 10 lakhs per family, namely:

(a)	Agriculture land procurement (2 hectare) and development	:	35% of the total package
(b)	Settlement of rights	:	30% of the total package
(c)	Homestead land and house construction	:	20% of the total package
(d)	Incentive	:	5% of the total package
(e)	Community facilities commuted by the family (access road, irrigation, drinking water, sanitation, electricity, tele-communication, community center, religious places of worship, burial and cremation ground)	:	10% of the total package

(iii) The relocation process would be monitored and implemented by the following two Committees, namely:

**State level Monitoring Committee consisting of:**

- |     |  |   |                    |
|-----|--|---|--------------------|
| (a) | Chief Secretary of the State                                     | - | Chairman           |
| (b) | Secretaries of related departments                               | - | Members            |
| (c) | State Principal Chief Conservator of Forests                     | - | Member             |
| (d) | Non-official members of respective Tiger Conservation Foundation | - | Members            |
| (e) | Chief Wildlife Warden  | - | Member-Secretary.. |

**District level Implementing Committee for ensuring convergence of other sectors, consisting of:**

- |     |   |   |                   |
|-----|---|---|-------------------|
| (a) | District Collector  | - | Chairman          |
| (b) | Chief Executive Officer (CEO)   | - | Member            |
| (c) | Representative officials from Public Works Department (PWD), Social Welfare, Tribal Department, Health Department, Agriculture Department, Education Department, Power and Irrigation Departments | - | Members           |
| (d) | Deputy Director of the tiger reserve or protected area  | - | Member Secretary. |

(iv) The above cost norms are indicative in nature to facilitate flexibility for State and site specific situation, and may be modified to allow inter component as well as inter family adjustments by respective State Governments as per site specific requirements.

(v) The relocated village would be taken up on a priority basis for eco development as well as local development through convergence of District level schemes.

(vi) The labour oriented works involved in the relocation process would be preferably implemented through the villagers who are being relocated, so that they derive benefits out of the same apart from ensuring the field implementation to their satisfaction.

(vii) In case resettlement has been done on a forest land, the new settlement will be eligible for access to forest resources for their bonafide use through the Village Level Committee and Gram Sabhas.

(viii) The District Administration would facilitate fair price shop, education, health centre close to the relocated site.

(ix) "Handholding" after relocation would be ensured through the forest department with ongoing ecodevelopmental inputs through Central assistance and district administration involving convergence of schemes. In this effort help of competent independent agencies may be sought wherever available.

(x) The relocated villagers would be given priority for livelihood options emanating from the protected area.

(xi) In case the cost of relocation including settlement of rights per family exceeds Rs. 10 lakhs, the State Government has to meet the extra cost.

(xii) The relocation process would be an open ended one, since the progress of relocation process would depend on performance by States.

**16.10 Mainstreaming wildlife concerns in tiger bearing forests and fostering corridor conservation through restorative strategy involving locals to arrest fragmentation of habitats (new activity) (non recurring).**

16.10.1. The forests connecting tiger reserves or protected areas have tigers and other wild animals in most of the States. At present, there is no Scheme for addressing wildlife concerns in such areas, where restorative as well as protective inputs are required. The Wild Life (Protection) Act, 1972, provides for addressing such corridor areas. This, inter alia, would involve the following, namely:

- (i) Redressing man-animal conflict.
- (ii) Capturing problematic and aberrant wild animals.
- (iii) Monitoring of wild animals.
- (iv) Antipoaching operations.
- (v) Habitat improvement measures.

16.10.2. The communities living in fringe areas of National Parks, Sanctuaries and tiger reserves suffer from frequent depredation of their crops on account of damage caused by wild herbivores like blue bull, black buck, wild pig and elephants. The situation becomes acute in certain pockets, since people depend on a single annual rain fed crop with low productivity. This is one of the major reasons for man-animal



conflicts around our Tiger Reserves and Protected Areas, and is a serious bottleneck in enlisting the much needed local support for wildlife conservation.

16.10.3 Under Section 11 of the Wild Life (Protection) Act, 1972, the State Chief Wildlife Wardens and officers authorized on his behalf can permit killing of wild animals causing destruction to life and property, including standing crops. However, rural communities do not favour such killings due to religious sentiments attached to these animals. Trapping and translocation of such wild animals which gain a pest value is neither feasible nor cost effective. Therefore, the situation calls for adequately compensating the stakeholder communities around tiger reserves from this recurring loss. This would be supported as per prevailing norms of the State, in the delineated buffer area as explained in Section 38V of the Wild Life (Protection) Act, 1972, as amended in 2006.

**16.11 Safeguards and Retrofitting measures in the interest of wildlife conservation (new activity) (non recurring).**

Several tiger reserves are affected on account of heavily used infrastructure like roads, railway tracks and others. 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.

16.12 Providing basic infrastructure/Project Tiger Headquarter expenditure for consultancy, field visits by expert teams, all India tiger estimation/ continuous monitoring of tigers (Phase-IV), support for monitoring tigers outside tiger reserves through NTCA grant, developing a National Repository of Camera Trap Photo Database of tiger, strengthening of NTCA at the Centre and Regional Offices, besides establishing a monitoring lab (non recurring).

**16.13 Independent monitoring and evaluation of tiger reserves (ongoing) (non recurring).**

The independent monitoring of tiger reserves was carried out using as many as 45 parameters by a panel of experts, based on International Union for Conservation of Nature format. The monitoring reports were peer reviewed by the International Union for Conservation of Nature and placed before the Parliament. An independent Management Effectiveness Evaluation was again carried out in 2010-2011, which would be repeated again in subsequent years.

**16.14 Establishment and development of new tiger reserves (new activity) (recurring and non recurring as indicated for various activities).**

16.14.1 '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 23<sup>rd</sup> 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 X Plan period.

16.14.2 In-principle approval has been accorded for declaring the following tiger reserves:

Sl. No.	Name of Tiger Reserve	State
1.	Ratapani	Madhya Pradesh
2.	Sunabeda	Odisha
3.	Pilibhit	Uttar Pradesh
4.	Mukundara Hills (including Darrah, Jawahar Sagar and Chambal Wildlife Sanctuaries)	Rajasthan
5.	Sathyamangalam	Tamil Nadu

16.14.3 Further, the following areas have been suggested, by the National Tiger Conservation Authority to States, for creation as tiger reserves are given below:

Sl. No.	Name	State
1.	Nagzira-Navegaon	Maharashtra
2.	Bor	Maharashtra
3.	Suhelwa	Uttar Pradesh
4.	Guru Ghasidas	Chhattisgarh
5.	Mahdei	Goa
6.	Srivilliputhur Grizzled Giant Squirrel / Megamalai Wildlife Sanctuaries / Varushanadu Valley	Tamil Nadu

16.14.4 Final approval has been accorded for the Kudremukh Tiger Reserve (Karnataka).

16.15 Provision of Project Allowance to staff (all categories) of Project Tiger (providing project allowance to Ministerial staff is a new component) (non recurring).

16.15.1 The officers and staff of tiger reserves receive Project Allowance as approved by the Expenditure Finance Committee and Cabinet Committee on Economic Affairs during IX plan period as detailed below:

- |     |                 |                        |
|-----|-----------------|------------------------|
| (a) | Field Director  | - @ Rs. 1000 per month |
| (b) | Deputy Director | - @ Rs. 750 per month  |

- |     |   |                       |
|-----|---|-----------------------|
| (c) | Assistant Director/<br>Research Officer/Veterinary Officer<br>(equivalent rank) | - @ Rs. 650 per month |
| (d) | Forest Ranger and equivalent rank   | - @ Rs. 500 per month |
| (e) | Forester and equivalent rank  | - @ Rs. 450 per month |
| (f) | Forest Guard and equivalent rank  | - @Rs. 350 per month  |

16.15.2 The offices of tiger reserves are located in remote places. More often than not, the ministerial staff prefer postings elsewhere in regular Forest Division offices, as a result of which the routine official working in the Project Tiger Office are adversely affected. Further, several ongoing complimentary schemes from the Collector Sector are also dovetailed in tiger reserves as a part of the eco development strategy to benefit the stake holders. Such ongoing schemes, enhance the office work and therefore, able ministerial support becomes extremely crucial. However, to attract the best talent, it is proposed to extend the project allowance to ministerial staff working in tiger reserves as indicated below:-

Class II	-	Rs 500 (per employee per month)
Class III	-	Rs 350 (per employee per month)
Class IV	-	Rs 200 (per employee per month)

16.15.3 The above rates were doubled for the existing categories of eligible employees with the approval of the Ministry of Finance with effect from the 1<sup>st</sup> September, 2008.

#### 16.16 Staff welfare activities (non recurring).

The field staff of tiger reserves serve in remote and difficult areas, often subjected to endemic diseases like malaria, dengue, water-borne infections, apart from facing the risk of chance encounters with wild animals. Further, such postings are normally 'non-family postings', and the frontline personnel has to bear the cost of maintaining his family in a nearby village or town having the basic schooling and medical facilities. It is relevant to add, accommodation in such rural areas are seldom readily available. In addition, the field staff of a tiger reserve, unlike his counterpart in Territorial Forest Divisions, has also to bear the brunt of local community dwelling in fringe areas, owing to restrictions on the latter for free access to forest resources. Thus, the role of a frontline field personnel in a protected area or tiger reserve is different from his counterpart in regular Forest Divisions. The physical assault on the staff of tiger reserves and protected areas by people nurturing a grudge against the management is more common, often resulting in casualties. Therefore it becomes essential to provide amenities for staff welfare, to attract the best talent in the working age group. During the Plan period, 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.

#### 16.17 Fostering Tourism/ Ecotourism in tiger reserves (new activity) (non recurring).

'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 and 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 and 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.

**16.18 Change in the funding pattern in respect of North Eastern States by increasing the central share from the existing 50% to 90% for Recurring Expenditure, with the States' share becoming 10%. The ongoing support for Non-Recurring Expenditure would continue to be 100%.**

There is considerable delay in the release of central assistance to the field formations (tiger reserve) by the North Eastern States under the Project Tiger Scheme, owing to non availability of matching State share for recurring activities, despite allocation from the Centre. There has been a demand for increasing the central share in the recurring component of funding support. Accordingly, the central share has been increased from 50% to 90% for recurring items of expenditure.

**16.19 Raising compensation for man-animal conflict to Rs. 2 lakhs in case of loss of human life, 30 per cent of the same for grievous injury and cost of treatment for minor injury (Non-Recurring).**

The human-wildlife interface is extremely sensitive due to spill over of wild animals from core areas of tiger reserves. The loss on account of such depredation needs to be compensated adequately in a time bound manner to avoid 'revenge killings'. The compensation on man-wildlife conflict has been doubled from Rs. 1 lakh to Rs. 2 lakh in the case of loss of human life, while the compensation for serious injury has been retained at 30% of the amount of compensation on death, besides meeting the cost of treatment of minor injuries to people due to wildlife.

**16.20 Acquisition of private land for making the core and critical tiger habitat inviolate (Non-Recurring).—**

In several tiger reserves, there are private land holdings/estates within the core and critical tiger habitats of tiger reserves. The above component has been included under the Project Tiger Scheme for providing 100% central assistance to States to acquire such areas, if necessary, for making the core/critical tiger habitat inviolate.

**16.21 Establishment of Tiger Safari, interpretation and awareness centres under the existing component of 'co-existence agenda in buffer and fringe areas', and**

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**management of such centres through the respective Panchayati Raj Institutions (creation – Non-Recurring; maintenance – Recurring).**

The Tiger Safaris may be established in the buffer areas of tiger reserves which experience immense tourist influx in the core/critical tiger habitat for viewing tiger. The interpretation and awareness centres would also be supported in such buffer areas to foster awareness for eliciting public support. The management of such centres would be through the respective Panchayati Raj (PR) institutions.

**16.22 Re-introduction of Cheetah in the States of Madhya Pradesh and Rajasthan under the Scheme at a cost of Rs. 50 crores after ensuring the historical co-existence of Cheetah with other carnivores, especially the tiger.**

Reintroduction of large carnivores has increasingly been recognised as a strategy to conserve threatened species and restore ecosystem functions. The Cheetah is the only large carnivore that has been extirpated, mainly by over-hunting in India in historical times. Based on the recommendations of an expert group involving the Wildlife Institute of India, the Ministry of Environment and Forests has decided to take up reintroduction of cheetah in the States of Rajasthan (Shahgarh area) and Madhya Pradesh (Kuno-Palpur and Noradehi Wildlife Sanctuaries). The said States would receive 100% support towards village relocation, habitat management and restoration, holding facility, veterinary facility, training professionals, monitoring, procurement of cheetah, eco-development in the fringes and maintenance.

**17. State to enter into Memorandum of Understanding.**

The Tiger Reserve States would be required to enter into a Tripartite Memorandum of Understanding with the Ministry of Environment and Forests, as provided in the format at Appendix-C.

18. The Tiger Reserves would receive funding support under the ongoing Centrally sponsored Scheme of 'Project Tiger' on the basis of a reserve specific Tiger Conservation Plan as required under Section 38V of the Wildlife (Protection) Act, 1972, as amended in 2006. This should be prepared in accordance with the guidelines issued by the National Tiger Conservation Authority. Till the preparation and approval of the Tiger Conservation Plan vis-à-vis the provisions of the Wild Life (Protection) Act, 1972, the tiger States would be required to send an interim Indicative Tiger Conservation Plan which should form the basis of the Annual Plan of Operations to obtain funding support under 'Project Tiger'.

19. The centrality of Panchayati Raj Institution should be ensured through consultation for deployment of local workforce, issues relating to man – animal conflicts, livelihood options, village relocation and eco-tourism.

Appendix-C

**TRIPARTITE MEMORANDUM OF UNDERSTANDING  
BETWEEN  
THE MINISTRY OF ENVIRONMENT AND FORESTS  
(NATIONAL TIGER CONSERVATION AUTHORITY)  
BIKANER HOUSE, SHAHJAHAN ROAD, NEW DELHI  
GOVERNMENT OF ....., AND FIELD DIRECTOR ..... TIGER  
RESERVE**

The Government of India has revamped its Tiger Conservation Programme through the setting of the National Tiger Conservation Authority. The urgency in saving the tiger, India's national animal enjoins on the Centre, State and Tiger Reserve Management onerous responsibilities, effective discharge of which is essential. This tripartite memorandum seeks to lay out respective responsibilities and reciprocal commitments linked to fund flows to ensure effective tiger conservation in the country.

This tripartite Memorandum of Understanding made this .....day of .....between the Ministry of Environment and Forests, acting through the National Tiger Conservation Authority, Annexe No. 5, Bikaner House, Shahjahan Road, New Delhi-110011 (hereinafter referred to as the 'NTCA') of the First Part, the State Government of \_\_\_\_\_, acting through (designation and office address) (hereinafter referred to as the 'State Government'), of the Second Part, and the Field Director of ..... Tiger Reserve (hereinafter referred to as the Field Director), of the Third Part.

Whereas the State Government has submitted a proposal to the Ministry of Environment and Forests, through the Field Director, seeking financial assistance for protection and development of .....tiger reserve, hereinafter referred to as the "\_\_\_\_\_".

And whereas the Ministry of Environment and Forests is ready and willing to extend financial support for the approved items of the said work, on the terms and conditions given below for the year 2009-2010 and thereafter.

NOW, THEREFORE, IT IS HEREBY AGREED between the Parties as follows:

**ARTICLE I****Obligations of the Ministry of Environment and Forests (through the NTCA)**

The Ministry of Environment and Forests has agreed and affirmed that:-

- (1) Funding support under Project Tiger shall be made available to the Tiger Reserve in two phases, on receipt of the Annual Plan of Operation with cost estimates of proposed field initiatives, based on tiger reserve specific "Tiger Conservation Plan".
- (2) The first installment of the funding support under Project Tiger would be done by four weeks after receipt of the Annual Plan of Operation from respective State Governments, subject to the availability of funds and directives of the Ministry of Finance.

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- (3) The second installment of the funding support under Project Tiger would be released by two weeks after receipt of Utilisation Certificate pertaining to previous year from the States alongwith 60% Utilisation Report of funding support released as first installment during the current financial year, and the Progress Report in the desired format from the Field Director, duly recommended by the Chief Wildlife Warden of the State.
- (4) Technical guidance in the form of advisory would be provided to the Field Director under intimation to the State Government in the Tiger Reserve, within the ambit of the provisions contained in the Wildlife (Protection) Act, 1972, with regard to conservation of tigers and their habitat.
- (5) An ecological auditing on the impact of investment made in the reserve shall be carried out as per prescribed criteria.

## ARTICLE II

### Obligations of the Government of .....

The State Government has agreed and affirmed that:-

- (1) The Tiger Conservation Plan, as required under section 38V of the Wildlife (Protection) Act, 1972, as amended in 2006, shall be prepared for the Tiger Reserve for which the funding support is being sought from ....., as per the prescribed guidelines within 6 months from .....
- (2) The core or critical tiger habitat and the buffer or peripheral area shall be delineated and notified as required under the Wildlife (Protection) Act, 1972, as amended in 2006 within 6 months from .....
- (3) The staff vacancies shall be filled up by .....for ensuring effective implementation and field protection, after fixing area norms vis-à-vis the topography within 6 months from .....
- (4) The money released under Project Tiger shall be made available to the tiger reserve within 2 weeks of its receipt in the State for implementing tiger conservation initiatives, as proposed in the Annual Plan of Operations, with due compliance of the normative guidelines and advisories of the said Authority.
- (5) The State Government shall post a motivated officer with proven track record, preferably trained in wildlife management, as the Field Director of the Tiger Reserve, with a minimum tenure of three years (extendable if the situation warrants).
- (6) The State Government shall constitute a Steering Committee as required under section 38U of the Wildlife (Protection) Act, 1972, as amended in 2006, under the Chairmanship of the Chief Minister, for ensuring coordination, monitoring, protection and conservation of tiger, co-predators and prey animals, within one year from .....
- (7) The State Government shall establish a reserve-specific Tiger Conservation Foundation, as autonomous "profit centres" for the Tiger Reserve to facilitate and support its management for tiger conservation and eco-development, by involving local people, as per the guidelines issued, empowered to receive tourism gate collections, assistance from Government and other funds from Government and planning authority, to create a "development fund", and deploy it for the benefit of the reserve, local people and the staff within 6 months from .....

- (8) The State Government shall promote action for local intelligence gathering and protection of the tiger reserve, and this "Security Plan" should form part of the Tiger Conservation Plan, with provisions for periodic "Security Audit".
- (9) The State Government shall ensure capacity building of the frontline staff for effective enforcement, apart from staff development and staff welfare measures, based on a capacity building plan made part of the Tiger Conservation Plan.
- (10) The State Government shall regulate tourism as per carrying capacity computed for the reserve and develop forest and wildlife tourism policy for the State within one year from .....
- (11) The State Government shall avail the enhanced relocation package for relocating the villages in the core / critical tiger habitats as per the revised guidelines of the Project Tiger and statutory provisions, in a time bound manner.
- (12) The State Government shall take steps for restoring the identified corridor linkages with the tiger reserve by mainstreaming tiger conservation in the landscape amongst the various production sectors, with the active involvement of territorial forest divisions, and revenue authorities, having scope for handholding by credible agencies outside the Government system.
- (13) The State Government shall ensure ecologically compatible land uses in areas linking one tiger reserve with the other, while ensuring that forestry operations of regular forest divisions and those adjoining tiger reserves are not incompatible with the needs of tiger conservation.
- (14) The State Government shall certify that no ecologically unsustainable land use such as mining, industry and similar projects operate within the tiger reserve.
- (15) The State Government would ensure that the day-to-day tiger monitoring protocol is ensured in the tiger reserve as per advisories issued by the National Tiger Conservation Authority (Project Tiger), for facilitating forecasting of untoward happenings.
- (16) The State Government shall ensure active management of the buffer zone of the tiger reserve with central assistance for eliciting public support through mainstreaming of wildlife concerns, to benefit local people and wild animals, apart from addressing man-wildlife animal interface.
- (17) The State shall place in the public domain the Tiger Conservation Plan of the reserve and details of execution within 6 months from ....., in their official website ....., apart from making available the same in local language to promote public vigil.
- (18) The money released by the National Tiger Conservation Authority shall be made available to tiger reserves for taking up the works proposed in the Annual Plan of Operations (APO) immediately, with due compliance of the normative guidelines and advisories of the said Authority.
- (19) The Director/Officer Incharge of the tiger reserve shall be empowered to spend the money provided by the National Tiger Conservation Authority for immediate execution of the schemes, as per the norms and procedures prescribed by NTCA and the State Government.
- (20) The State Government will ensure that the Accounts of the grants released by NTCA are audited by Statutory Audit of the State Government on annual basis and a certificate to this effect will be sent to NTCA annually latest by 31<sup>st</sup> May each year.



**ARTICLE III****Obligations of the Field Director .....Tiger Reserve**

The Field Director ....., Tiger Reserve has agreed and affirmed that:-

- (1) A Security Plan would be drawn up for the Reserve, considering its strength, weakness, opportunity and threat which would form part of the Tiger Conservation Plan, to ensure intelligence based enforcement for protection of tiger, other wild animals and the habitat.
- (2) The day-to-day monitoring protocols for tiger and other wild animals would be duly followed, as prescribed by the National Tiger Conservation Authority, to ensure forecasting of untoward happenings in the habitat.
- (3) The Tiger Conservation Plan would be prepared within a time frame of six months, as per the guidelines issued by the NTCA with prescriptions for the core, buffer and adjoining areas.
- (4) A staff development plan should be prepared and submitted to the State Government for ensuring frontline field staff in the right age group with the capacity to perform field work in the Reserve.
- (5) Initiatives for mainstreaming tiger conservation in the buffer and outer landscapes should be taken up through sectoral integration of different district level schemes, to provide livelihood options to the fringe dwellers for reducing their dependency on the tiger reserve, with reciprocal commitments from beneficiaries to protect the tiger.
- (6) Timely redressal of man-wild animal conflicts would be ensured to prevent revenge killings of tiger and other wild animals.
- (7) A Tiger Conservation Foundation will be set up for the Reserve as a receptacle for gate receipts and other receipts from the State / Central Governments to undertake local actions.
- (8) The Annual Plan of Operation for funding support from NTCA shall have reference to the Tiger Conservation Plan.
- (9) The cost estimates worked out by the Field Director should be based on approved schedule of rates of the State Government.
- (10) The APO must indicate the location / area of proposed initiative / initiatives on a map, along with physical target, financial target and unit rate, with the basis of estimation.
- (11) The progress report should invariably indicate the physical achievement (viz., quantity, number, area indicating location) and the objectives fulfilled on implementation of proposed activities.
- (12) A year-wise photo catalogue of physical targets shall be maintained to facilitate verification during supervisory visits.
- (13) During execution, details of estimate, man-days involved etc. shall be displayed near the work site.
- (14) Utilisation Certificate showing unspent balance, if any, shall be furnished to National Tiger Conservation Authority annually after the close of the financial year so that the same is reached in this office by 31<sup>st</sup> May of each year. Complete Utilisation Certificate shall be submitted immediately on completion of the work.
- (15) The accounts of the grants released by National Tiger Conservation Authority shall be maintained properly as per audit requirement and shall be open to inspection by the NTCA/Audit. A copy of these accounts shall also be released to NTCA. In case of construction / habitat improvement works, photocopies of

- the measurement books (for the work which was executed from NTCA's grant) shall also be sent to NTCA. Details of unspent amount, if any, shall be intimated to the Authority for adjustment as unspent balance or revalidation.
- (16) The funds will be used only for the purpose of which it was sanctioned. Diversion of funds will not be allowed without the prior approval of NTCA.
  - (17) The records of all assets acquired out of the grant released herewith by the NTCA, shall be made available for scrutiny of audit. Such assets shall not be, without the prior approval of Govt. of India / National Tiger Conservation Authority be disposed off, encumbered or utilized for the purpose other than those for which the grant is sanctioned.
  - (18) A statement showing the extracts of the assets created out of the grants released by NTCA shall be furnished to NTCA annually by 31<sup>st</sup> May of each year.
  - (19) The tiger reserve Management should consult the Gram Sabha while deploying the local work force, as Members of the Sabha would be conversant with the geographical and other related information about the area.
  - (20)
    1. The Compensation for cattle lifting, crop depredation, injury and death of humans should be decided in consultation with the Zilla Parishad (ZP).
    2. The Tiger Reserve Management should coordinate with the concerned Gram Panchayat (GP) while implementing crop protection safeguards and other initiatives relating to man-wild animal conflicts
  - (21) The Tiger Reserve Management should consult with Panchayati Raj Institutions for providing ecologically viable livelihood options to reduce villagers' dependence on forests. The Gram Sabha should be involved in restoring forest cover in the buffer areas in order to provide a supplementary habitat to animals moving out of core areas.
  - (22) Zilla Parishad should be involved in monitoring the payment and utilization of the compensation package whether under option-I or option-II.
  - (23) In case of option II, relocation/rehabilitation from the protected area/tiger reserve by the Forest Department should be done in consultation with the Gram Sabha.
  - (24) Zilla Parishad Chairperson should be a member of the District level Implementing Committee for ensuring convergence with other sectors.
  - (25) Implementation and monitoring of district level schemes in the relocated village should be done through Gram Panchayat/Gram Sabha.
  - (26) Gram Panchayat/Gram Sabha should be involved in identifying labour oriented works relating to the relocation process, ensuring that the relocated villagers get adequate remuneration for their labour.
  - (27) In case of re-settlement on forest land, the new settlement should be eligible to access forest resources based on their traditional forest rights as certified by the Gram Sabha.
  - (28) Recommendations of Gram Panchayat/Gram Sabha should be taken while deciding the site for fair-price shops, schools, health centre etc. close to the relocated village.
  - (29) Gram Panchayat/Gram Sabha should be consulted in the identification of services, activities and personnel involved in ecotourism.
  - (30) The Local Traditional Village Councils or the Gram Sabha under the PESA Act, 1996, as the case may be, should be consulted on the rehabilitation/welfare package to ensure that such tribal people are provided with livelihood options as well as health care, education and housing facilities, vis-à-vis the statutory provisions contained in the Wild Life (Protection) Act, 1972 as amended in 2006.

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**ARTICLE IV**

(Site-specific action)

Some tiger reserves may warrant special interventions owing to their unique geographical and other attributes.

Examples:

1. Proactive steps for intelligence based enforcement/antipoaching operations in border reserves and sensitive areas.
2. Proactive steps for preventing mortality of wild animals in Kaziranga.
3. Proactive steps for fire prone habitats.
4. Proactive steps for drought prone habitats.
5. Innovative steps for areas affected by insurgency and related problems.
6. Innovative steps for addressing issues like tigers straying out frequently in human settlements in habitats like Sundarbans.

**ARTICLE V****Consequences of non-observance of the terms of the MOU**

(In case of non-observance of the terms of MOU by the State Government and the Field Director)

1. Stoppage of funding support under Project Tiger.
2. Release of second installment would not be made in case the Utilisation Certificate relating to the first release is not received in the NTCA.
3. Non adherence / observance to MOU may lead to stoppage of incentives which may be provided to the officials and staff of the Tiger Reserve.
4. Non observance of the MOU leading to loss of tiger and its habitat and violation of statutory provisions of the NTCA may lead to penal action on the Field Director through the State Government.

IN WITNESS WHEREOF, the representatives of the Parties to this Memorandum of Understanding being duly authorized have signed this Memorandum of Understanding as of the day, month and year first above written.

<b>Signed for and on behalf of National Tiger Conservation Authority</b>	<b>Signed for and on behalf of Government of</b>	<b>Field Director..... Tiger Reserve</b>
<b>Name &amp; Designation (With Stamp) Dated:</b>	<b>Name &amp; Designation (With Stamp) Dated:</b>	<b>Name &amp; Designation (With Stamp) Dated:</b>

**PART-B****GUIDELINES FOR TOURISM IN AND AROUND TIGER RESERVES****PREAMBLE.**

*Whereas, healthy natural ecosystems are critical to the ecological well-being of all living entities, and especially for the economic security of people. Tourism in the form of ecotourism has the potential to enhance public awareness, education, and wildlife conservation, while providing nature-compatible local livelihoods and greater incomes for a large number of people living around natural ecosystem which can help to contribute directly to the protection of wildlife or forest areas, while making the local community stakeholders and owners in the process.*

*Whereas, the Central Government considers it necessary to lay down a framework Guidelines on the selection, planning, development, implementation and monitoring of tourism in tiger reserves of the country with a view to recognise that tiger reserves and their landscapes are diverse, specific State Tourism and Ecotourism Strategies to be developed by the concerned State Governments and Tourism and Ecotourism Plans to be developed by the concerned Authorities.*

*These Guidelines are framed under section 38-O (c) of the Wild Life (Protection) Act, 1972. (WLPA), the provisions of the Scheduled Tribes and Other Forest Dwellers (Recognition of Forest Rights) Act, 2006, (FRA), Panchayat (Extension to Scheduled Areas) Act, 1996, (PESA) and Part IX of the Constitution of India, besides other laws in force. These Guidelines are in consonance with the Guidelines of the Centrally Sponsored Scheme of Project Tiger.*

**1. THE NEED FOR GUIDELINES.**

1.1 The objective of these Guidelines is to move from wildlife tourism to ecotourism which is defined as 'responsible travel to natural areas that conserves the environment and improves the well-being of local people'. Given the conditions in India, it is proposed that ecotourism includes tourism that is community based and community driven. The aim should be to move towards a system of tourism around tiger reserves, which is primarily community based tourism. Such tourism should be low-impact, educational and conserve the ecology and environment, while directly benefiting the economic wellbeing of local communities.

1.2 The primary objective of tiger reserves is to conserve tiger source populations that also act as an umbrella for biodiversity conservation. These areas provide a whole host of ecosystem services and opportunities for tourism. Unplanned and unregulated tourism in such landscapes can destroy the very environment that attracts such tourism in the first place. Hence, there is a need to move towards a model of tourism that is responsible and compatible with these fragile landscapes.

1.3 Tourism, when practiced appropriately, is an important economic and educational activity. It has the scope to link to a wider constituency and build conservation support while raising awareness about the worth and fragility of such ecosystems in the public at large. It also promotes the non-consumptive use of wilderness areas, for the benefit of local communities living around and dependent on these fragile landscapes.

1.4 In the absence of proper planning and regulation, there has been a mushrooming of tourist facilities in recent years around tiger reserves which has led to the exploitation, degradation, disturbance and misuse of fragile ecosystems. It has also led to misuse of the term 'ecotourism', often to the detriment of the ecosystems and towards further alienation of local people and communities.

1.5 These Guidelines are applicable to areas in and around tiger reserves.

## 1.6 PRINCIPLES OF TOURISM IN AND AROUND TIGER RESERVES.

The persons who implement and participate in tourism activities shall, *inter alia*, practice the following principles, namely:—

- (a) adopt low-impact wildlife tourism which protects ecological integrity of forest and wildlife areas, secure wildlife values of the destination and its surrounding areas;
- (b) engage with Gram Sabhas as defined in the Scheduled Tribes and Other Forest Dwellers (Recognition of Forest Rights), Act 2006 (FRA) and Panchayat (Extension to Scheduled Areas) Act, 1996 (PESA) to facilitate decision making;
- (c) ensure free participation and prior informed consent of Gram Sabhas and all other stake holders;
- (d) develop mechanisms to generate revenues from wildlife tourism for the welfare and economic upliftment of local communities;
- (e) highlight the biodiversity richness, their values and their ecological services to people;
- (f) highlight the heritage value of India's wilderness and tiger reserves;
- (g) build environmental, cultural awareness and respect;
- (h) facilitate the sustainability of tourism enterprises and activities;
- (i) provide livelihood opportunities to local communities;
- (j) promote sustainable use of indigenous materials for tourism activities;
- (k) promote processes for forest dwellers to control and maintain their resources, culture and rights so as to minimize negative impacts.

## 2. GUIDELINES FOR DEVELOPING STATE TOURISM STRATEGY FOR TIGER RESERVES.

The following paragraphs provide the broad framework for each stakeholder.

Synergy and collaboration amongst the Central Government, and relevant State Government Departments, forest dwellers, local communities and civil society institutions are vital for ensuring successful implementation of the Guidelines.

### 2.1. State Governments.

2.1.1. The State-level Tourism and Ecotourism Strategy for Tiger Reserves shall be in tune with these guidelines. Ecologically sensitive land use policies related to tourism shall be specified by the State Government for the landscape surrounding tiger reserves. Adequate provisions shall be made to ensure that ecotourism does not get

relegated to purely high-end, exclusive tourism, leaving out local communities. Relevant modifications in State rules and regulations should be carried out in order to ensure adherence to these standards by tourism developers and operators. All States Governments shall notify the State-level Tourism and Ecotourism Strategy within one year from the date of notification of these Guidelines.

2.1.2. The State Governments shall endeavour to develop a State-level policy to favour ecotourism in place of wildlife tourism as a comprehensive plan to ensure that the primary objective of tiger conservation is not compromised and inter alia, include:

- (i) maintaining integrity and connectivity of tiger reserves;
- (ii) local community rights, participation and benefit-sharing;
- (iii) sound environmental design and sustainable use of indigenous materials;
- (iv) conservation education and training;
- (v) adequate machinery for monitoring and evaluation of the impact of ecotourism activities on wildlife conservation and local communities;
- (vi) capacity building of local communities in planning, providing and managing ecotourism facilities;
- (vii) development of appropriate land use and water management planning and regulation for maintaining the ecological integrity of landscape in and around tiger reserves.

2.1.3. No new tourist infrastructure shall be set up within the core or critical tiger habitat of tiger reserves, in violation of the provisions of the Wild Life (Protection) Act, 1972, and the directives of the Honourable Supreme Court.

2.1.4. The State Level Steering Committee under section 38U of the Wild Life (Protection) Act, 1972 shall review the implementation of the State-level Tourism and Ecotourism Strategy in Tiger Reserves.

2.1.5. The State Governments shall develop a system to ensure that gate receipts from tiger reserves are utilised by their management for specific conservation purposes and shall not go as revenue to the State Exchequer. This will ensure that resources generated from tourism can be earmarked for protection, conservation and local livelihood development, tackling human-wild animal conflict and welfare measures of field staff.

2.1.6. Since the tourism industry in and around tiger reserves is sustained primarily from the non-consumptive use of wildlife resources and the local communities are the ones that bear the brunt of conservation, the State Governments may charge a conservation fee from the tourism industry for eco-development and local community upliftment works. The conservation fee shall be decided on the number of beds in a facility, the duration of operation of the facility (seasonal or year round) and on a luxury classification system such as home stay (fee for which will not be charged up to a 6 bed facility), to high end (which will have the maximum quantum of the fee). The suggested fee structure may range between Rs. 500 to Rs. 3000 per room per month. The rate of conservation fee and tourist facility strata shall be determined by the State Government, and the fund thus collected shall be earmarked to address local livelihood development, human-wildlife conflict management and conservation through ecodevelopment and not go to the State Exchequer as specified in 2.1.5 above.

2.1.7 The fund shall be administered by the Tiger Conservation Foundations with the Tourism Industry having a say in how and where this fund is to be utilized, and mechanisms for which need to be worked out at specific tiger reserves. The fund shall be used for all the villages located within or adjacent to the tiger reserves. Every State Government shall notify the rate of local conservation fee within a year from the date of notification of these Guidelines. The rate of fee shall be revised periodically taking into consideration the cost of operation. The rationale for a local conservation fee should be clearly explained to the public at large, through clear signages at local tourist facilities. The State Government shall put in place a transparent mechanism for utilisation of these funds involving the tiger reserve management through the Tiger Conservation Foundations and Gram Sabhas.

2.1.8. A Local Advisory Committee (hereinafter referred to as LAC) shall be constituted for each tiger reserve by the State Government. The LAC shall have the following functions, namely:

- (a) to review the tourism strategy with respect to the tiger reserve and make recommendations to the State Government;
- (b) to ensure computation of reserve specific carrying capacity and its implementation through periodic reviews;
- (c) to ensure site specific norms on buildings and infrastructures in areas inside and close to tiger reserves, keeping in view the corridor value and ecological aesthetics;
- (d) to advise local self Government and State Government on issues relating to development of tourism in and around tiger reserves;
- (e) monitor regularly (at least half yearly) all tourist facilities in and around tiger reserves vis-à-vis environmental clearance, area of coverage, ownership, type of construction, number of employees, etc., for suggesting mitigation and retrofitting measures if needed;
- (f) monitor regularly activities of tour operators to ensure that they do not cause disturbance to animals while taking visitors into the tiger reserves;
- (g) to encourage tourism industry to augment employment opportunities for members of local communities.

2.1.9. Local Advisory Committee shall consist of:

- (a) Divisional Commissioner or an officer of equivalent rank to be nominated by the State Government - Chairperson;
- (b) Member/s of the State Legislature representing the area comprising of the concerned tiger reserve
- (c) District Collector/s
- (d) Tiger Reserve Field Director (Member Secretary)
- (e) Local Territorial Divisional Forests Officers
- (f) Honorary Wildlife Warden (if present)
- (g) Official of State Tourism Department
- (h) Official of the State Tribal Department
- (i) one Block Development Officer or Sub Divisional Magistrate to be nominated by the State Government
- (j) two Members of Local Panchayats to be nominated by the State Government

- (k) one Wildlife scientist to be nominated by the State Government
- (l) one Social scientist to be nominated by the State Government
- (m) one representative of the tourism sector to be nominated by the State Government
- (n) two local conservationists to be nominated by the State Government
- (o) two representative from a local, registered Civil Society Institution to be nominated by the State Government
- (p) Provided that the Gram Sabhas and in case of North Eastern States, the traditional village councils shall be recognized as equivalent to Panchayat Members, wherever such councils exist.

2.1.10 For tourism in a tiger reserve, the Tiger Conservation Foundation shall be the overseeing authority.

2.1.11 Terms of reference and tenure of the Local Advisory Committees shall be determined by the State Government.

## 2.2. Tiger Reserve Management in the context of tourism.

2.2.1 The Chief Wildlife Warden of the State shall ensure that each tiger reserve prepares a tourism plan, as part of the Tiger Conservation Plan vis-à-vis the technical Guidelines of the National Tiger Conservation Authority. The plan shall inter alia, include identification of corridor connectivity and important wildlife habitats and mechanisms to secure them. This site-specific tourism plan forming part of the Tiger Conservation Plan shall be approved as per the provisions of the Wild Life (Protection) Act, 1972. Prior to this approval, no new infrastructure for tourism (except for minor alterations in existing modest home stays) shall be allowed to be developed in and around tiger reserves.

2.2.2 The tourism plan shall, inter alia, include a monitoring mechanism, estimated carrying capacity (a suggested model mechanism to calculate carrying capacity, is provided in Annexure-I and Annexure-II, which may be modified on a site specific basis), tourism zones and demarcation of the area open to tourism on the basis of objective and scientific criteria.

2.2.3. The tourism plan should be consistent with the State Tourism and Ecotourism Strategy and shall also be approved by the LAC and the State Government.

2.2.4 The plan shall:

- (i) identify (using landscape ecological principles and tools) and monitor the ecologically sensitive areas surrounding tiger reserves, in order to ensure the ecological integrity of corridor and buffer areas, and prevent corridor encroachment;
- (ii) assess carrying capacity of the tiger reserve, at three levels: physical, real and effective or permissible carrying capacity of visitors and vehicles as well as residential facilities in and around the tiger reserve (in accordance with Annexure-I, Annexure-II). On the lines of the illustrative calculation provided for vehicular tourist visitation, carrying capacity needs to be computed on a site specific basis for tourist visitation involving elephant, boat and foot travel. Explore the possibility of technological tools (Global Positioning System, wireless, etc.) to manage traffic and spacing of tourist vehicles within tiger



- reserves;
- (iii) set a ceiling level on number of visitors allowed to enter a tiger reserve at any given time, based on the carrying capacity of the habitat;
  - (iv) indicate the area open to tourism in the reserves to be designated as 'eco-tourism zone';
  - (v) ensure visitor entry into tiger reserves through vehicles registered with the tiger reserve management, accompanied by authorised guide;
  - (vi) develop a participatory community-based tourism strategy, in collaboration with local communities, to ensure long-term local-community benefit-sharing, and promotion of activities run by local communities.
  - (vii) develop codes and standards for privately-operated tourist facilities located in the vicinity of core or critical tiger habitats, eco-sensitive zones or buffer areas, with a view to, inter alia, ensure benefit and income to local communities;
  - (viii) develop monitoring mechanisms to assess impact of tourism activities on the wildlife and its habitat so as to minimize them;
  - (ix) develop generic guidelines for environmentally acceptable and culturally appropriate practices, and for all new constructions;
  - (x) set up lists of Do's and Don'ts for visitors;
  - (xi) provide for subsidized visits of students while fostering educational extension activities.

2.2.5. In the case of human animal conflicts, compensation shall be paid within the period as per Citizen's Charter, apart from immediate payment of ex gratia.

2.2.6. All tourism activities shall take place only in delineated 'tourism zones' indicated in the tourism plan. The vacant posts in tiger reserves shall be filled up since the staff is also required to manage some tourism in addition to their regular duties.

2.2.7. Tigers in India occur across varied habitats that range from high elevation mountain subtropical forests, tropical wet evergreen forests, mangrove swamps, tropical moist or dry deciduous forests and alluvial floodplain grasslands. The densities of large ungulates, the main prey of tigers, vary from 2 to over 60 animals per km<sup>2</sup> among these different habitats. Breeding tigers are territorial, and the size of their territories adjust to prey density so as to successfully raise cubs. Male tiger territories cover the territories of two to four breeding tigress territories. Due to variation in habitat specific prey density, breeding tigress territories range from 20 to 200 km<sup>2</sup> in India. For a demographically viable population it is essential to have a core area that harbours a minimum of 20 to 25 breeding tigresses. For long-term genetic viability the minimum effective population size is believed to be about 500 individuals. Due to the variability in breeding tigress territory size and thus breeding tiger density, the core area needed can be generalized to be between 800-1200 km<sup>2</sup>. This core and surrounding buffer can then sustain a population of about 75 to 100 individual tigers to attain demographic viability. However, genetic viability is possible only through corridor connectivity within the larger landscape where dispersing individual tigers ensure genetic mixing between different source populations (tiger reserves) in a metapopulation framework. Current tourism zones where only tourist visits are permitted and there are no consumptive uses, tiger density and recruitment does not seem to be impacted. For this reason permitting up to 20% of the core/ critical tiger habitat as a tourism zone should not have an adverse effect on the tiger biology needs, which is subject to adherence to all the prescriptions made in these Guidelines.

2.2.7.1. There is also a need for fostering the buffer and peripheral areas for carrying out the greater part of ecotourism to benefit local communities.

2.2.8. Conservation of the tiger, our National animal, is the paramount objective of tiger reserves and generating public support through regulated tourism is an invaluable tool for harnessing public and community support for tiger conservation. Regulated tourism results in enhanced awareness and is of educational value especially for the younger generation. Non-consumptive, regulated, low-impact tourism, could be permitted within core or critical tiger habitat without in any way compromising the spirit of core/critical tiger habitat for tiger conservation. With this importance of tourism in tiger conservation in mind, it is recommended that a maximum of 20% of the core or critical tiger habitat usage (not exceeding the present usage) for regulated, low-impact tourist visitation may be permitted. In case the current usage exceeds 20%, the Local Advisory Committee may decide on a timeframe for bringing down the usage to 20%. Such area may be demarcated as tourism zone and there should be strict adherence to site specific carrying capacity. Restoration of buffer forest areas shall be done through its unified control under the respective Field Directors of tiger reserves vis-à-vis the Guidelines of the Project Tiger and the National Tiger Conservation Authority. Further, no new tourism infrastructure shall be created in the core areas. Existing residential infrastructure inside core or critical tiger habitats shall be strictly regulated to adhere to low ecological impacts as decided by the Local Advisory Committee on a site specific basis.

2.2.8.1. Any core area in a tiger reserve from which relocation has been carried out, shall not be used for tourism infrastructure.

2.2.9. Forest dwellers who have been relocated from core or critical tiger habitat to the buffer shall be given priority in terms of livelihood generation activities related to community-based ecotourism in the tiger reserve. Tiger reserve management shall make a special effort in this regard, besides a periodic review to ensure its compliance.

2.2.10. Tourism infrastructure shall conform to environment-friendly, low-impact aesthetic architecture, including solar energy, waste recycling, rainwater harvesting, natural cross-ventilation, proper sewage disposal and merging with the surrounding habitat. Violations of these norms will be appropriately dealt with by the LAC. Any violation of the guidelines will be referred to the appropriate authorities under intimation to the NTCA, for taking action in accordance to the relevant provisions of the law.

2.2.11. The District Revenue and tiger reserve authorities shall ensure that all tourist facilities within a zone of influence (to be identified by the LAC) in the context of core/critical tiger habitats in tiger reserves must adhere to all environmental clearances, noise pollution norms, and are non-polluting, blending in with surroundings. Severe penalties must be imposed for non-compliance.

2.2.12. Permanent tourist facilities located inside core or critical tiger habitat, which are being used for wildlife tourism shall be phased out on a time frame decided by the LAC. Strict plans ensuring low impact adherence by these facilities shall be developed and approved by the LAC for implementation. There shall be no privately run facilities such as catering, etc., inside the core or critical tiger habitat where night

stay is permitted. Such existing facilities if any, are to be run by the Tiger Conservation Foundations.

2.2.13. All tourism facilities located within the zone of influence (as determined by the LAC) in the context of the tiger reserve shall adhere to pollution norms (noise, solid waste, air and water, etc.), under the respective laws or rules for the time being in force. Outdoor high intensity illumination shall not be utilized as it disturbs nocturnal wild animal activities.

2.2.14. There shall be a complete ban on burying, burning or otherwise disposing non-biodegradable or toxic waste in and around the tiger reserve. Proper plan for disposal of degradable waste shall be developed and strictly implemented.

2.2.15. Management of habitat to inflate animal abundance for tourism purposes shall not be practiced within the core or critical habitat. Visitors shall keep a minimum distance of more than 20 meter from all wildlife; cordoning, luring or feeding of any wildlife shall be prohibited. Minimum distance between vehicles while spotting wildlife shall be maintained at 50 meters. Vehicles shall not monopolize a wildlife sighting for more than 15 minutes.

2.2.16. To avoid the number of visitors and vehicles exceeding carrying capacity, tiger reserve managers shall establish an advance booking system to control tourist and vehicle numbers. Rules of booking shall be transparent and, violators shall be penalized.

2.2.17. Tiger reserve authorities shall delineate an adequate and appropriate area for the visitor facility outside the protected area.

2.2.18. Tourism activities in tiger reserves shall be under the overall guidance of the respective Tiger Conservation Foundations and the LACs.

### 2.3. Tourist facilities and Tour operators.

2.3.1. Tourism infrastructure must conform to environment-friendly, low-impact, low height aesthetic architecture; renewable including solar energy, waste recycling, water management, natural cross-ventilation, no use of asbestos, discharge of only treated sewage, no air pollution, minimal outdoor lighting, and merging with the surrounding landscape.

2.3.2. The use of battery operated vehicles shall be encouraged to minimize pollution wherever terrain permits.

2.3.3 A 'curriculum' shall be developed for training of guides and drivers in the art, craft and ethics of wildlife tourism, resulting in certification. All guides and drivers shall compulsorily go through a short course in interpretation and rules and regulations followed by an oral examination before being certified by the Tiger Conservation Foundation. Courses may be scheduled during the non-tourist season. All certified guides and drivers shall wear appropriately designed uniforms with name tags and badges. This will instil a sense of pride, discipline and accountability. Prior to every tourist season, certified guides and drivers shall go through a refresher course or workshop. They shall also build up their capacity to identify birds and provide natural history information on other species, to slowly wean them away from a tiger-centric obsession. A periodic assessment of their

performance shall be reviewed by the LAC before reissuing their licences.

2.3.4. All tourist facilities falling within the zone of influence of a tiger reserve shall be reviewed regularly by the Local Advisory Committee vis-à-vis environmental clearance, area of coverage, ownership, type of construction, number of employees, etc., for suggesting mitigation and retrofitting measures if needed.

2.3.5. All tourist facilities, old and new shall aim to generate at least 50% of their total energy and fuel requirements from alternate energy sources that may include solar and biogas.

2.3.6. The use of wood as fuel shall be prohibited, except for campfires for which wood must be procured from State Forest Department or the Forest Development Corporation depots.

2.3.7. In order to allow free passage to wildlife, developments shall be sensitive to the conservation of flora and fauna, and the corridor value of the area in and around tiger reserves.

2.3.8. Tourist facilities and tour operators shall not cause disturbance to animals while taking visitors on nature trails.

2.3.9. Any violation of the guidelines shall be referred to the appropriate authorities under intimation to the National Tiger Conservation Authority, for taking action in accordance to the relevant provisions of the law.

#### 2.4. Temple and Pilgrimage Boards.

2.4.1. Pilgrim sites located inside tiger reserves shall be in accordance with the Forest (Conservation) Act, 1980, Wild Life (Protection) Act, 1972 and the Environment (Protection) Act, 1986 to prevent any further expansion. This shall be periodically reviewed by the LAC.

2.4.2. All transit camps and places of stay for such pilgrimage shall be restricted to nominated days in a year. The protected area managers shall work with the temple authorities to develop a system for controlling the number of pilgrims so as to maintain the ecological integrity of the area. This mechanism shall be developed within three years of the notification of these Guidelines.

2.4.3. All rules relating to tourism facilities including noise, building design, use of alternate energy and free passage to wildlife shall apply to such pilgrim facilities.

2.4.4. Temple boards shall negotiate terms of revenue sharing with local communities and channel a minimum of 10 percent of gross revenue collected into development of local communities through the Gram Sabha.

2.4.5. The tourist operators, drivers and temple controlling authorities shall be given an exposure on the value of forest ecosystem and their ecological services and alongwith the do's and don'ts during visits to forests and tiger reserves.

2.5. These Guidelines shall be applicable to the tiger reserves notified under section 38V of the Wild Life (Protection) Act, 1972. The State Government shall lay down Guidelines on similar lines for tourism in other protected areas.

2.6 Contravention of any provision of these guidelines or conditions laid therein by any person or organization shall be liable of an offence under sub-section (2) of 38-O of the Wild Life (Protection) Act, 1972.

### ANNEXURE-I

#### ESTIMATION OF CARRYING CAPACITY\*

(Illustrative Calculation for vehicle based tourist visitation, Example: Kanha Tiger Reserve)

(a) **Physical Carrying Capacity (PCC):** This is the "maximum number of visitors that can physically fit into a defined space, over a particular time". It is expressed as:

$$PCC = A \times V/a \times Rf$$

Where, A = available area for public use

V/a = one visitor / M<sup>2</sup>

Rf = rotation factor (number of visits per day)

In order to measure the PCC to Kanha, the following criteria must be taken into account:

Only vehicular movements on forest roads are permitted

The "standing area" is not relevant, but "closeness" between vehicles is important

There is a required distance of at least 500 m ( 1/2km.) between 2 vehicles to avoid dust (2 vehicles / km.)

At least 3 ½ hours are needed for a single park excursion

The protected area is open to tourists for 9 months in a year and 9 hours per day

Linear road lengths within the tourist zone are more relevant than area, and the total lengths are:

Kanha	107.20 km.
Kisli	72.56 km.
Mukki	103 km.
Total	282.76 or 283 km.

Due to constant vehicular use, the entire road length of 283 km. is prone to erosion, out of which around 90 km. is affected more

$$\text{Rotation Factor (Rf)} = \frac{\text{Opening period}}{\text{Average time of one visit}}$$

$$\begin{aligned} \text{Physical Carrying Capacity (PCC)} &= 283 \text{ km.} \times 2 \text{ vehicles / km.} \times 2.6 \\ &= 1471.6 \text{ or } 1472 \text{ visits / day} \end{aligned}$$

\* Hector Ceballos-Lascurain 1992-Tourism, ecotourism, and protected areas, IV World Congress on National Parks and Protected Areas, IUCN, Gland, Switzerland.

(b) **Real Carrying Capacity (RCC):** RCC is the maximum permissible number of visits to a site, once the "reductive factors" (corrective) derived from the particular characteristics of the site have been applied to the PCC. These "reductive factors" (corrective) are based on biophysical, environmental, ecological, social and management variables.

$$RCC = PCC - Cf_1 - Cf_2 - \dots - Cf_n$$

Where Cf is a corrective factor expressed as a percentage. Thus, the formula for calculating RCC is:

$$RCC = PCC \times \frac{100 - Cf_1}{100} \times \frac{100 - Cf_2}{100} \times \dots \times \frac{100 - Cf_n}{100}$$

Corrective Factors are "site-specific", and are expressed in percentage as

$$\text{below: } Cf = \frac{M_i}{M_t} \times 100$$

Where: Cf = corrective factor  
 $M_i$  = limiting magnitude of the variable  
 $M_t$  = total magnitude of the variable

(i) Road erosion: Here the susceptibility of the site is taken into account.

Total road length = 283 km. ( $M_t$ )  
 Medium erosion sink = 50 km. (weighting factor: 2)  
 High erosion risk = 40 km. (weighting factor: 3)  
 $M_i = 50 \times 2 + 40 \times 3 = 100 + 120 = 220$  km.  
 $M_t = 283$  km.

$$Cfe = \frac{220}{283} \times 100 = 77.8 \text{ or } 78\%$$

(ii) Disturbance to Wildlife: Here, species that are prone to disturbance owing to visitation are considered. The Central Indian barasingha, a highly endangered, endemic species found only in Kanha has a courtship period of about 1 month in winter, during which it is extremely sensitive to disturbance. Likewise, the peak courtship activity for spotted deer lasts for two months before the onset of regular monsoon. As far as tigers are concerned, newborns are seen between March and May and also during the rains; hence an average value of two months in a year can be considered as the matter phase.

$$\text{Corrector Factor (Cf)} = \frac{\text{limiting months / year}}{12 \text{ months / year}} \times 100$$

Corrective Factor for barasingha

$$Cf w_1 = \frac{1}{9} \times 100 = 11.1\%$$

Corrective Factor for spotted deer

$$Cf w_2 = \frac{2}{9} \times 100 = 22.2\%$$

Corrective Factor for tiger

$$Cf w_2 = \frac{2}{9} \times 100 = 22.2\%$$

Overall corrective factor for disturbance of wildlife in Kanha National Park =  $Cf w$   
 $= Cf_1 + Cf_2 + Cf_3$   
 $= 11.1 + 22.2 + 22.2 = 55.5$  or 55%

- (iii) Temporary Closing of Roads: For maintenance or other managerial reasons, visitation to certain roads may be temporarily restricted within the Protected Area. The Corrective Factor in this regard is calculated as:

$$Cf_1 = \frac{\text{limiting weeks / year} \times 100}{\text{total weeks / year}}$$

In Kanha, an average value of 2 limiting weeks per year may be considered as the "limiting weeks", and thus the corrective factor works out to:

$$Cf_1 = \frac{2 \text{ weeks / year} \times 100}{36 \text{ weeks / year}} = 5.5\%$$

Computation of RCC

$$\begin{aligned} RCC &= 1472 \times \frac{100-78}{100} \times \frac{100-55}{100} \times \frac{100-5.5}{100} \\ &= 1472 (0.22 \times 0.45 \times 0.95) \\ &= 138.4 \text{ or } 138 \text{ visits / day} \end{aligned}$$

(c) **Effective Permissible Carrying Capacity (ECC):** ECC is the maximum number of visitors that a site can sustain, given the management capacity (MC) available. ECC is obtained by multiplying the real carrying capacity (RCC) with the management capacity (MC). MC is defined as the sum of conditions that protected area administration requires if it is to carry out its functions at the optimum level. Limitations in management like lack of staff and infrastructure limit the RCC.

For Kanha, owing to the paucity of staff the MC is around 30%. Hence,  $ECC = 138 \times 0.30 = 41.4$  or 40 vehicles / day.

Thus, the Effective Permissible Carrying Capacity on any single day is only 40 vehicles, which should be allowed entry as below:

(Forenoon) = 25 vehicles (inclusive of both entry points)  
 (Afternoon) = 15 vehicles (inclusive of both entry points)

During peak season (winter months/summer holidays), the staff strength shall be increased (only 10%) by deploying "special duty" personnel; this would enhance the ECC to 55 vehicles per day. Further, increase in the number of vehicles would lead to deleterious effects on the habitat.

## ANNEXURE-II

### BRIEF NOTE ON LIMITS OF ACCEPTABLE CHANGE

- (1) The Encyclopedia of Ecotourism<sub>1</sub> defines carrying capacity as "the amount of tourism-related activity that a site or destination can sustainably accommodate; often measured in terms of visitor numbers or visitor-nights over a given period of time, or by the number of available accommodation units; management techniques such as site hardening can be employed to raise a site's carrying capacity".
- (2) Over a period of time, the carrying capacity framework has come up for criticism especially in the context of wild life, nature based or ecotourism. One of the major criticisms being that the carrying capacity model does not take into account the social implications while arriving at the number of visitors allowed entering a protected area.
- (3) Over the past approximately 10 years, the concept of Limits of Acceptable Change has evolved and found to be far more relevant to ecotourism.
- (4) The definition of Limits of Acceptable Change as defined by the Encyclopedia of Ecotourism is "a land management philosophy that identifies specific indicators of environmental quality and tourism impacts, and defines thresholds within which the conservation goals of a protected area are met".
- (5) The Limits of Acceptable Change is a planning model and does not merely look at the level of use and impact of tourism but on identifying the desirable environmental and social conditions for visitor activity. The process entails the listing of existing conditions and identifying the optimal limits for both physical and social conditions.
- (6) The model involves a 9-step process, which have been articulated differently by different policy making bodies across the world. Below is the 9-step process as propounded by the United Nations Environment Programme (UNEP)<sub>2</sub>:
  - (i) Identify special values, issues and concerns attributed to the area
  - (ii) Identify and describe recreation opportunity classes or zones
  - (iii) Select indicators of resource and social conditions
  - (iv) Inventory existing social resource and conditions
  - (v) Specify standard for resource and social conditions in each opportunity class
  - (vi) Identify alternative opportunity class allocations
  - (vii) Identify management actions for each alternative
  - (viii) Evaluation and selection of a preferred alternative
  - (ix) Implement actions and monitor conditions

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(7) What is important to note is that the model uses a process which is systematic, explicit, defensible and rational and involves public participation, this last element being most important if benefits of ecotourism are to accrue to communities.

(8) It is suggested that the Tiger Conservation Foundation in consultation with the Local Advisory Committee may suitably decide on the implementation of the Limits of Acceptable Change model in and around tiger reserves.

#### End Notes

<sup>1</sup> David B, Weaver (Ed.) (2001), "The Encyclopedia of Ecotourism", CABI Publishing, U.K.

<sup>2</sup> Eagles, Paul F.J., McCool, Stephan F & Haynes Cristopher D (1998) "Sustainable Tourism in Protected Areas: Guidelines for Planning and Management", UNEP.

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