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## 5TH MEETING OF THE INDO-RUSSIA SUB GROUP



## 13th MEETING OF THE NTCA

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## ANNUAL RESEARCH SEMINAR AT WII



## WORKSHOP ON MAN -ANIMAL CONFLICT

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NATIONAL TIGER CONSERVATION AUTHORITY  
GOVERNMENT OF INDIA

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5TH MEETING OF THE INDO-RUSSIA SUB GROUP.....3

13TH MEETING OF THE NTCA.....7

---

ANNUAL RESEARCH SEMINAR AT WII.....13

WORKSHOP ON MAN - ANIMAL CONFLICT.....16

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## NOTE FROM THE EDITOR



*The credentials of India in the field of tiger conservation are well recognized across the world. Neighbouring countries like Bhutan, Nepal and Bangladesh have bilateral understandings with India in this regard and there are periodic experience sharing meetings with them. Russia has done considerable work in the field of Amur tiger conservation especially in context of wild tiger relocation and rehabilitation besides in management of Canine Distemper Disease in tigers. India and Russia under the overarching Indo-Russia Inter Governmental Commission on Trade, Economic, Scientific, Technological and Cultural Co-operation (IRIGC-TEC) had the 5th meeting of the sub-group on Tiger / Leopard Conservation at Vladivostok, details of which are presented in this issue.*

*The 13th meeting of the NTCA under Chairmanship of the Hon'ble MEF&CC was held wherein, important policy matter were discussed. The Annual Research Seminar of the WII, Dehradun, presented four important research papers pertaining to tiger conservation which is highlighted in this issue. The Jharkhand Forest Department organized a workshop for its officers on Human-Wildlife Conflict where the NTCA provided its inputs.*



Photo Credit: NTCA

## 5TH MEETING OF THE SUB GROUP ON TIGER/LEOPARD CONSERVATION BETWEEN INDIA-RUSSIA

The 5th meeting of the sub group on Tiger/Leopard Conservation between India and Russia was held on September 24, 2016 at the Russian Far Eastern Federal University, Vladivostok, Russia. The Head of delegation from Russia, A.M. Amirhanov, Deputy Head of the Federal Service for Supervision of Natural Resources (Rosprirodnadzor), welcomed the Indian delegation and introduced other members in the Russian delegation. He highlighted gradual evolution of the sub group as part

of the overarching India-Russia Inter Governmental Commission on Trade, Economic, Scientific, Technological and Cultural Co-operation (IRIGC-TEC). He also remarked on the historical St. Petersburg Declaration, on Tiger Conservation, 2010, and how both countries had made significant progress in realizing it's target. The Russian delegation comprised of the following members;

**Irina Fominykh**

Deputy Director, Department

of International Co-operation, Ministry of Natural Resources and Environment, The Russian Federation

**Sergey Aramilev**

Deputy Director, Amur Tiger Center, Vladivostok

**The Head of the Indian delegation, Bishan Singh Bonal, Additional Director General of Forests (Project Tiger) and Member Secretary (National Tiger Conservation Authority).**



Photo Credit: NTCA

He expressed gratitude to the Russian delegation for hosting the 5th meeting of the sub group at Vladivostok. He introduced members of the Indian delegation which comprised the following officials;

- **Dr. Vaibhav C. Mathur, Assistant Inspector General of Forests (National Tiger Conservation Authority)**
- **R.B. Karjee, Consul General, Consulate General of India, Vladivostok**

The Consul General of India at Vladivostok, R.B. Karjee, gave his opening remarks and highlighted, significant strides made by India in tiger conservation with numbers at 2226, as per the latest assessment. This figure reflects

70% of the global population and has been achieved through intensive conservation efforts based on science and dedicated field work.

The Head of the Indian delegation, Bishan Singh Bonal, gave a presentation on the National Tiger Conservation Authority, its role, function and responsibilities.

Subsequently, a presentation was made by the Assistant Inspector General of Forests (National Tiger Conservation Authority), Dr. Vaibhav C. Mathur, on agreed action points between the two countries which have evolved over the last 4 meetings. Progress made by India vis-a-vis each agreed action point was highlighted and discussed as follows;

1. Cooperation on non-invasive research methodology, genetic studies and DNA extraction from old scats
2. It was informed that the NTCA along with the Wildlife Institute of India (WII), Dehradun, India had conducted a landscape based genetic study of tigers (based on DNA obtained from scats) to assess their diversity as well as relatedness between landscapes. Based on the study results, a standard operating procedure has been formulated for Active Management for Rehabilitation of Tigers from source areas at the landscape level, which is a valuable aid for field managers to plan tiger re-introduction in different habitats of the country.
3. **Hormonal estimation** It was informed that a study was commissioned by the NTCA and WII, to assess stress levels in re-introduced tigers at the Sariska and Panna Tiger Reserves, India, which is based on faecal gluco-corticoid hormone estimation, the latter being an indicator of physiological tension, which is reflected in reproductive performance. Results of this study have shed valuable insights into regulating anthropogenic activities in and around tiger source areas and reinforced the

need to have inviolate areas for tigers to thrive.

4. Measures to control diseases in tigers and other wild animals in tiger habitats. It was highlighted that India has adopted the approach of creating “immunization buffers” around tiger source areas for safeguarding tiger populations from infectious diseases, which is however, proving cumbersome to implement. Keeping in view significant strides made by Russia in developing strategies to prevent canine distemper disease in tigers, the Indian delegation solicited inputs from the Russians, who assured of their fullest co-operation in the said field.
5. Tiger reintroduction and rehabilitation. Both countries have made significant

progress on this agreed action point and it was decided to continue sharing experiences through medium of the sub group.

6. Training and capacity building of field officers/specialists in India and vice versa. Through the “Tiger Watch” programme being implemented by the Global Tiger Forum (GTF) and Wildlife Trust of India (WTI), Russian Forest officials are periodically visiting India to learn from Indian experiences.
7. Landscape planning and smart green infrastructure in the tiger landscape. It was highlighted that significant strides have been made by India to achieve a “model” ecosystem for tigers wherein, a landscape approach to tiger conservation has been

implemented by factoring in corridor areas in conservation management strategies. These tiger corridors have been mapped at the macro level by the NTCA and WII and are fine tuned by field managers for suitable management interventions. The NTCA and WII have in fact, gone ahead and have started identifying tiger corridors even at the micro level to facilitate field managers. Further, in coordination with the WII, the NTCA is supporting stakeholder sensitization workshops involving officials from infrastructure development agencies.

8. Monitoring and surveillance of long ranging tigers, electronic surveillance of tiger reserves. It was also highlighted that tigers are being monitored through





Photo Credit: NTCA

radio telemetry in select sites in India, and by electronic eye, besides monitoring through Phase IV protocol, which has been discussed in earlier meetings of the sub group. The Russian delegation was informed of development of a new framework to carry out security audit of tiger reserves in India. It was informed that an online wildlife crime database system has been developed along with the Wildlife Crime Control Bureau of India, to ascertain linkages in wildlife crime cases, besides the ADG (PT) and MS (NTCA) becoming part of the INTERPOL advisory group, to coordinate crimes with international

ramifications

9. Global Tiger Forum (GTF) The issue of Russia Joining the GTF has been long pending. The Russian delegation informed that though the Russian Foreign Ministry had cleared this proposal, it is unlikely that they would become members as the Ministry of Finance has not given their concurrence due to annual financial implications of the proposal, besides GTF being perceived as a Regional Forum and not within the over arching United Nations Framework.
10. Both India and Russia agreed to expedite signing of the

MoU between the Wildlife Institute of India and A. N. Severtsov Institute of Ecology and Evolution.

11. Both sides assured each other of continued support through mutual experience sharing under aegis of the sub group in future.

The meeting ended with a vote of thanks to all.





Photo Credit: NTCA

## 13TH MEETING OF THE NATIONAL TIGER CONSERVATION AUTHORITY

The 13th meeting of the National Tiger Conservation Authority (NTCA) was held under the Chairmanship of Shri Anil Madhav Dave, Hon'ble Minister for Environment, Forest & Climate Change and Chairperson, National Tiger Conservation Authority on 19th September, at the Mahanadi Conference Hall, Indira Paryavaran Bhawan, Jor Bagh Road, New Delhi.

Shri M.C. Malakar, Shri Hemandra

Kothari, and Shri T. Chatterjee, Members of NTCA sought leave owing to personal reasons which was approved by the Chairman, NTCA.

The Hon'ble MEF&CC and Chairperson, NTCA welcomed the members and asked Additional Director General (Project Tiger) & Member Secretary (NTCA) to initiate the proceedings. While mentioning about the role India is playing vis-à-vis tiger

conservation, he highlighted that India is home to 70% of world's free ranging tigers and the same should be showcased accordingly. Additional Director General (Project Tiger) & Member Secretary (NTCA) initiated the deliberations on agenda items as follows:

Confirmation of minutes of the twelfth meeting. The Chairperson solicited comments on minutes of the twelfth meeting of the NTCA.

Since no objection was raised by any Member on the said minutes, the NTCA confirmed minutes of its twelfth meeting held on 17.03.2016.

Action taken on the minutes of the 12th meeting of the NTCA

**1. Finalisation of Awards**

Additional Director General (Project Tiger) & Member Secretary (NTCA) briefed about the subject and category-wise details of the awards conferred by the Hon'ble Prime Minister of India to the awardee tiger reserves during 3rd Asia Ministerial Conference on tiger conservation held in New Delhi from 12-14 April, 2016.

**2. Deliberations on vacancy position in Tiger Reserves**

NTCA took note of the action taken. It was decided that referring to the letter sent earlier by the Hon'ble MEF&CC and Chairman, NTCA to the Chief Ministers of the tiger range States, he would like to send a letter again to the Chief Ministers of the States where no action has been initiated so far.

**3. Recent tiger part seizures in Uttarakhand**

Additional Director General (Project Tiger) & Member Secretary (NTCA) highlighted about various action taken by State of Uttarakhand, STF and WCCB. NTCA took note of the action taken. The Chief Wildlife Warden, Uttarakhand intervened and highlighted the problem of providing adequate protection to dispersing tigers in the Corbett landscape especially in context

of those dispersing in adjoining areas of the State of Uttar Pradesh. He stressed on the fact that suitable habitat patches in the State of Uttar Pradesh should be brought under aegis of buffer of the Corbett Tiger Reserve and inter-state meeting should take place on regular basis. Shri P. Bhattacharya, Member, NTCA and Member of Parliament, Rajya Sabha also highlighted the importance of buffer areas. The Chief Wildlife Warden, Karnataka stated, quoting the examples of Kudremukh, Cauvery and MM Hills Wildlife Sanctuary that the NTCA should evolve a mechanism to fund 'potential tiger areas' as due to lack of adequate managerial interventions, tigers in such areas are more susceptible to extraneous factors.

**4. Habitat management**



Photo Credit: NTCA



Photo Credit: NTCA

**activities to reduce man-animal conflict**

Additional Director General (Project Tiger) & Member Secretary (NTCA) apprised the NTCA of the various measures taken in this regard including provision of funding assistance, ex-gratia payment as well as different provisions / mechanisms cited in the Standard Operating Procedures and Tiger Conservation Plans. The members appreciated that it is one of the major issue which needs to be addressed in the swiftest possible manner.

Additional Director General (Project Tiger) & Member Secretary (NTCA) also apprised that under the Centrally Sponsored Scheme of Project tiger funding assistance is provided

to field formations for habitat management in tiger reserves. Besides, Chief Wildlife Wardens of the tiger range States have been requested to submit proposal on “fodder and water augmentation” to be funded under CAMPA Scheme by Wildlife Division of the MoEF&CC.

Shri Erach Bharucha, Member, NTCA emphasize the need for capacity building of all stakeholders especially the police. The Chief Wildlife Warden, West Bengal highlighted initiatives taken by the State in this regard. Shri P. Bhattacharya, Member, NTCA and Member of Parliament, Rajya Sabha stressed on the need for greater inter agency coordination in this context.

It was decided that provisions of the SOP shall be reiterated

and tiger range States will be requested to adhere to the same while following the Wildlife (Protection) Act.

**5. Evolving innovative methods such as incentivise people for safeguarding corridors**

The NTCA was apprised of the provisions as per the Wildlife (Protection) Act, 1972 and framing of corridor plan as part of Tiger Conservation Plan and delineation of such corridors at the macro level by the NTCA-WII. Further micro level identification has been carried out for the Eastern Vidharbha landscape in Maharashtra by the NTCA-WII. It was underscored that tiger range States should go for identification of corridors at the micro level and make it part of the statutory Tiger Conservation



Photo Credit: Dr Vaibhav Mathur

Plan.

#### **6. New funding pattern of CSS-PT**

Additional Director General (Project Tiger) & Member Secretary (NTCA) briefed about the present status of funding pattern system. NTCA took note of the action taken. Members desired that the matter should be taken up by the NTCA again with the Hon'ble Finance Minister where all efforts should be put in to get at least village relocation, STPF and anti-poaching activities excluded from the ambit of current dispensation.

It was also decided that the matter shall be pursued further at the

level of NTCA.

#### **7. Service Tax and Income Tax on Tiger Conservation Foundations**

Additional Director General (Project Tiger) & Member Secretary (NTCA) briefed on the subject with action taken so far. It was decided that matter should be taken up with the CBDT and CBEC with intervention of the Secretary (E,F&CC).

#### **8. Fabrication of technology used for tiger conservation within the country**

Additional Director General (Project Tiger) & Member Secretary (NTCA) briefed about

the constitution of team of officers and progress thereupon. NTCA took note of the action taken so far in this regard. Hon'ble Chairman, NTCA stressed that development of technology for fabrication of equipments should be done in a time bound manner indigenously involving organizations like ISRO, CSIR, Department of Science and Technology, such that India is in a position to provide the same to the world at a cheaper rate and to fulfil our mission of Digital India and Make in India.

#### **Updates**

A presentation was made by the Additional Director General of Forests (Project Tiger) & Member Secretary (NTCA) deliberating all

the technological advancements made by India vis-à-vis tiger conservation, besides other progresses / initiatives made during the year.

The Hon'ble Chairman, NTCA underscored the need to sub-classify causes for tiger mortality, vis-à-vis the current format of reporting tiger mortality. The Member Secretary (NTCA) clarified that the same is followed and shall be presented accordingly in future.

**Approval of budget / expenditure schedules for the year 2015-16**

The NTCA unanimously ratified the budget of the NTCA with the Secretary (E,F&CC) stressing the need to authorize Member

Secretary (NTCA) for getting the Annual Report laid down on Table of both the Houses of Parliament, once the Audit Report is received and approved by the Chairman, NTCA.

**Agenda items proposed by NTCA Members**

**(i) Dr. Ravi Singh, Member, NTCA**

While lauding the Chairman, NTCA for his remarks in context of fabrication of technology indigenously, he mentioned willingness of the Indian Space Research Organisation to provide a dedicated bandwidth for wildlife research. He also expressed the need to leverage improved Indo-Myanmar ties for tiger conservation. He

highlighted the challenge posed by Canine Distemper Virus to India's tiger population and the need to address the same, besides other diseases transmissible from livestock to wildlife.

**(ii) Shri Rajan Gurukkal, Member, NTCA**

He raised the issue pertaining to: relocation of non-tribal enclosures from Tiger reserves and tiger landscapes; detailed enclave management studies inside TRs; implementation of Sabarimala Master Plan and Parking space at Thekkady in PTR

**Any other item with the approval of the Chair**

1. Shri Rajpal Singh, Member, NTCA raised the issue of



Photo Credit: Dr. Vaibhav Mathur

revision of package available for voluntary village relocation. This was seconded by the Chief Wildlife Warden, Karnataka who emphasized the need to revise the existing package for relocation / rehabilitation of villagers from core/critical tiger habitat of tiger reserves in light of the developments in the preceding years. Members were of the view that a committee should be formed consisting of members from NTCA, some retired experienced officials and other experts. In this context, the Hon'ble Chairman, NTCA opined that the role of Panchayati Raj Institutions needs to be recognized in this process and they should necessarily be a part of such a committee.

The ADG (PT) & Member Secretary (NTCA) made it clear that the

rehabilitation package is based on the National Rehabilitation and Resettlement Policy, 2007 of the Ministry of Rural Development and it shall be prudent to effect any change in the current package on revision of this policy by the said Ministry.

2. The Chief Wildlife Warden, Bihar requested the NTCA to facilitate use of drones / UAVs in Valmiki Tiger Reserve due to paucity of staff. The Hon'ble Chairman, NTCA cautioned to the use of such technology in bordering areas of the country to avoid untoward diplomatic consequences.

3. Shri Nagendra Singh, Member, NTCA and Member of Parliament, Lok Sabha raised the following issues:

- Assessment of impact of the

Ken-Betwa river interlinking project on Panna Tiger Reserve and the surrounding landscapes.

- Assessment of carrying capacity of tigers in tiger reserves.
- Providing restorative managerial interventions in respect of identified corridor areas.

#### **4. Representative of the Tribal Ministry raised the following issues:**

- Village rehabilitation should not be carried out near city / town limits and without the informed consent of Gram Sabha.
- It was made clear that the village rehabilitation / relocation is a voluntary activity which is carried out with due diligence.

The meeting ended with a vote of thanks by the Chair to the members.



Photo Credit: Dr. Vaibhav Mathur



## ANNUAL RESEARCH SEMINAR AT THE WILDLIFE INSTITUTE OF INDIA

The Annual Research Seminar at the Wildlife Institute of India, Dehradun, was held between September 29 and 30. Amongst several research themes and topics, presented here are abstracts of presentations which were made in context of tiger conservation and were funded by the National Tiger Conservation Authority.

### 1. Implementation of Monitoring System for Tigers Intensive Patrolling and Ecological Status “MSTripES” Phase II: Qamar Quereshi

Monitoring System for Tigers-

Intensive Patrolling and Ecological Status “MSTripES” was developed to assist Tiger Reserve and Park managers in making informed decision for adaptive management. The information generated from prevailing law enforcement systems across tiger reserves in India is ad hoc and rarely available in a format for informed decision making. MSTripES addresses this void by assisting law enforcement in protected areas and monitoring the ecological systems on single platform. Apart from the patrol component, which is part of many other law enforcement software, M-STripES provides

several additional and unique functions. Ecological module of M-STripES allows assessment of spatio-temporal trends of tigers, other carnivores, prey and habitat quality. The conflict module maps conflict ‘hot-spots’ and catalogues compensation to enhance transparency. The first training workshop for Phase II was held at Bandipur from 29th August, 2016 – 2nd September, 2016. The workshop was attended by 80 officials from, NTCA, WII, WWF, WCT and State Forest Departments of Kerala, Karnataka and Tamil Nadu. MSTripES motivates the frontline staff by demonstrating their efforts

for improved management and protection and guides conservation managers towards better management and legal enforcement. If implemented as designed, MStrIPES can probably facilitate a cultural shift in the management of protected areas of India and other Tiger Range Countries.

## 2. Validating and protecting tiger corridors of the Eastern Vidarbha Landscape, Maharashtra: Indranil Mondal

The aim of this study is to use actual tiger movement data to validate modelled corridors and assess the state of these corridors with respect to fragmentation and human pressure. This would aid in prescribing solutions that may be undertaken to safeguard these corridors. The study was carried out in the Eastern Vidarbha Landscape, comprising mainly of the Nagpur Division, which is dotted with eight protected areas where tiger is present, with two of them acting as important source populations. The landscape is also criss-crossed by tiger corridors, which are heavily fragmented at places by mining activities, infrastructural developments and irrigation projects. We used tracking data from 3 radio-collared tigers in the Eastern Vidarbha Landscape to validate predicted corridors. Furthermore, we compared spatial attributes of tiger movement tracks with

corridors to analyze agreement levels between predicted corridors and actual tiger movements. Disturbance parameters like fragmentation and anthropogenic disturbance also was calculated along corridors. According to Cohen's Kappa statistic, predicted corridors show 76% agreement with movement data of collared tigers. Analysis of tiger movement data indicates that fragmentation and anthropogenic disturbance are one of the most important factors affecting tiger movement in corridors. We applied various morphometric indices and found predicted pinch points to coincide with highly fragmented areas. Finally, we outline how to opportunistically amalgamate resources available for tiger conservation beyond protected habitats from various sectors

where tiger conservation is not the main goal. The study highlights the importance of tiger movement data in validating modelled corridors. The study also highlights the application of fine-scale movement data for identification of weaker links in the corridors.

## 3. Factors governing spatial dynamics and breeding of tigers Sariska Tiger Reserve: Dibyendu Mandal

The present study aimed to understand the factors influencing the spatial dynamics and breeding ecology of reintroduced tigers of Sariska Tiger Reserve, Rajasthan and explore future conservation implications. Radio-telemetry, direct sighting, camera trapping and pugmark tracking were used



Photo Credit: NTCA



Photo Credit: NITCA

#### 4. Effect of small size and isolation on demography of tigers in Ranthambhore Tiger Reserve: Ayan Sadhu

Ranthambhore tigers epitomize most of the large carnivore populations in Asia, i.e. they are small, isolated and often originating from a small founder base. Such populations are vulnerable to extinction caused by environmental and demographic stochasticity. Hence, understanding reproductive parameters of a potentially genetically compromised population is important to develop appropriate conservation strategies. Ranthambhore tigers had higher age of first reproduction with longer inter-birth intervals compared to tiger populations elsewhere probably due to density dependent regulation. Demographic parameters of Ranthambhore tigers that could potentially be depressed by inbreeding were comparable to tiger populations elsewhere. The best long-term conservation strategy for Ranthambhore tigers would be to establish and manage a metapopulation in the landscape by restoring habitat patches for tigers to colonize and promoting habitat corridors between these patches for tiger dispersal.

to monitor individual tigers during the study period (2013 – 16). Seven annual home range polygons of seven adult females were considered to study the factors governing breeding and spatial dynamics of tigers. The polygons were further classified as breeding/ non-breeding. Home range polygon was classified as ‘breeding,’ if the female was accompanied by cub(s). The rate of photo capture of human and livestock, distance to village and road, prey availability and ruggedness were used as variables to understand the influence of different variables on spatial dynamics and breeding of tigers using Generalized Linear Models (GLM). Logistic regression using the aforementioned GLMswas used to predict suitable areas for tiger breeding in Sariska.

The present study showed that ruggedness, human disturbance and distance to village significantly influenced breeding and spatial dynamics of tigers in Sariska. The study highlighted the importance of terrain complexity in concealment and producing apparent inviolate areas, crucial for tiger breeding. Results also indicate the importance of site prioritization for village, imperative in determining reintroduction success.



## WORKSHOP



Photo Credit: NTCA

### WORKSHOP CUM TRAINING PROGRAMME ON HUMAN-WILDLIFE CONFLICT

A workshop cum training programme on human-wildlife negative interactions was organized by the Deputy Conservator of Forests, Training, Jharkhand on September 6 and 7. The National Tiger Conservation Authority was invited to provide inputs vis-a-vis tiger and other big cat induced negative human wildlife interactions.

Dr. Vaibhav C. Mathur, Assistant Inspector General of Forests (NTCA) highlighted the multi pronged strategy which the NTCA has adopted to minimize such negative interactions as follows;

1. Material and logistical support: Funding support through the ongoing centrally sponsored scheme of Project Tiger, is provided to tiger reserves for acquiring capacity in terms of infrastructure and material, to deal with tigers dispersing out of source areas. These are solicited by tiger reserves through an Annual Plan of Operation (APO) every year which stems out from an overarching Tiger Conservation Plan (TCP), mandated under Section 38 V of the Wildlife (Protection) Act, 1972. Inter alia, activities

such as payment of ex-gratia and compensation, periodic awareness campaigns to sensitize, guide and advise the general populace on man-animal conflict, dissemination of information through various forms of media, procurement of immobilization equipment and drugs and training and capacity building of forest staff to deal with conflict events is generally solicited.

2. Restricting habitat interventions: Based on the carrying capacity of tigers in a tiger reserve, habitat

interventions are proposed or restricted through an overarching TCP mentioned above. In case tiger numbers are at carrying capacity levels, it is advised that habitat interventions should be limited so that there is no excessive spill over of wildlife including tigers thereby minimizing man-animal conflict. Further, in buffer areas around tiger reserves, habitat interventions are restricted such that they are sub-optimal vis-a-vis the core/critical tiger habitat areas, judicious enough to facilitate dispersal to other rich habitat areas only.



Authority has issued the following three SoPs to deal with man-animal conflict, which are available in public domain;

tigers in human dominated landscapes

- To deal with tiger depredation on livestock
- For active management towards rehabilitation of tigers from source areas at the landscape level.

**Standard Operating Procedures:**

The National Tiger Conservation

- To deal with emergency arising due to straying of



Photo Credit: NTCA

The three SOPs inter alia address the issue of managing dispersing tigers, managing livestock kills so as to reduce conflict as well as relocating tigers from source areas to areas where density of tiger is low, so that conflict in rich source areas does not occur.





Photo Credit: NTCA

## पर्यावरण रक्षा में व्याघ्र संरक्षण का महत्व

उपरोक्त विषय पर प्रकाश डालते समय इसे दो भागों में वर्गीकृत कर सकते हैं।

1. पर्यावरण रक्षा
2. व्याघ्र संरक्षण का महत्व

### 1. पर्यावरण रक्षा:

इस सृष्टि तथा अनन्त ब्रह्माण्ड की उत्पत्ति करने वाली महाशक्ति ने विभिन्न पदार्थों साधनों को नियमपूर्वक सन्तुलित रूप से यथोचित स्थापित किया है। सम्पूर्ण ब्रह्माण्ड के ग्रह/उपग्रह अनुशासित हो कर नियत स्थान पर परिक्रमा-परिभ्रमण करते हैं। हमारा एक सौरमण्डल है, हमारी पृथ्वी उस सौरमण्डल का सदस्य है। जिसमें मुख्य ग्रह पृथ्वी ही है। बाकी सभी ग्रह उसकी परिक्रमा करते हैं, ग्रहों की अनुशासित क्रियाओं के कारण पृथ्वी के भूमण्डल वायुमण्डल में समुचित जलवायु, मौसम/जीव वनस्पति, ठोस द्रव्य गैस पदार्थों, शुद्ध जल, शुद्ध प्राण

वायु की उपस्थिति होती है। इसलिए ग्रीष्म, वर्षा शीत काल सब कुछ नियत समय पर नियमानुसार घटित होता है।

प्रकृति द्वारा स्थापित पर्यावरण के मानदण्ड, एवं सन्तुलन में किसी प्रकार का विपरीत प्रभाव नहीं पड़ने से सब कुछ यथोचित घटित होता है, प्रकृति में सभी ओर सन्तुलन बनाए रखने की व्यवस्था सुनिश्चित की हुई है। सूर्य का उदय समय पर होता है। इसका प्रकाश सभी को आवश्यकतानुसार उपलब्ध होगा। शुद्ध प्राण वायु का वहन शुद्ध जल की उपलब्धता अनवरत होगी, प्रकृति में यह सब सुविधाएँ व्यवस्थाएँ, मनुष्य, जीव जन्तुओं पक्षियों, पेड़-पौधों लताओं इत्यादि के लिए मुफ्त प्रदान की है।

इतनी सारी सुविधाएँ, सुरक्षा की व्यवस्था प्रकृति के द्वारा किए जाने के पश्चात भी, आज हमारी पृथ्वी, इसमें रहने वाले जीवों,

वनस्पतियों नदियों ग्लेशियरों के अस्तित्व पर खतरे के बादल मण्डरा रहे हैं, प्रकृति के द्वारा स्थापित पर्यावरण में भयंकर असन्तुलन आया है। मनुष्य ने विकास, प्रगति तथा आधुनिक सुख सुविधाओं की प्राप्ति के लिए प्रकृति के साथ मूर्खतापूर्ण छेड़छाड़ कर दी है। कल कारखानों से निकलने वाली दूषित वायु ने वातावरण को दूषित कर दिया है। ग्रीन हाउस गैसों के उत्सर्जन से पर्यावरण के मानदण्डों की धज्जियाँ उड़ गई हैं। आज विश्व के सभी देश भूमण्डलीय ताप (ग्लोबल वार्मिंग) तथा जलवायु परिवर्तन जैसी भीषण समस्या के दुष्परिणामों से भयभीत हैं, ग्लेशियरों के पिघलने का सिलसिला शुरू हो चुका है, इसकी रोकथाम तथा पर्यावरण के लिए कई सम्मेलन हो चुके हैं।

### 2. व्याघ्र संरक्षण का महत्व:

यद्यपि मानव जीवन का विकास, प्रगति, नए

संसाधनों, सुविधाओं, सुख, प्रकृति में उपलब्ध पदार्थों का भरपूर दोहन आवश्यक है, किन्तु मनुष्य ने पृथ्वी में उपलब्ध प्राकृतिक संसाधनों के दोहन में कभी भी समझदारी से काम नहीं लिया, उसने जहां तहां पृथ्वी को खोद डाला, निर्ममता पूर्वक जंगलों का सफाया कर दिया। वृक्षों से आछादित वन सिमटने लगे हैं। जंगल वृक्ष विहीन हो चुके हैं। वन्य जीवों के निवास क्षेत्र संकुचित हो गए हैं।

यह सर्व विदित है कि प्रकृति/पृथ्वी के पर्यावरण/वातावरण को सन्तुलित रखने में वनों का महत्व पूर्ण योगदान है। मनुष्य द्वारा अन्धाधुंध वनों की कटाई से वन्य जीवों का अस्तित्व जिसमें संसार का सबसे सुन्दर शक्तिशाली वलिष्ठ वन्यजीव व्याघ्र भी है, खतरों में है। व्याघ्र वनों का संरक्षक है, वनों का राजा है। व्याघ्र की उपस्थिति से वनों के निवासी वन्य जीव पशु पक्षी वनो की वनस्पति, वृक्ष लताएँ घास सन्तुलित संरक्षित एवं सुरक्षित रहते हैं। व्याघ्र निर्वाध रूप से सबकुद वनों में विचरण करते हुये जीवित रहे, इसके लिए वनों में व्याघ्र के भोज्य वन्य जीव तृण/घास भोगी, हिरण सांभर चीतल इत्यादि की समुचित आबादी उपलब्ध होनी चाहिए। व्याघ्र ही ऐसा वन्य जीव है जो इन तृण/घास भोगी वन्य जीवों की आबादी को सन्तुलित करता है। क्योंकि इनकी अधिक आबादी संख्या वनों को अधिक हानि पहुंचाती है। ये जंगल की वनस्पतियों पौधों लताओं व घास को चटकर देती है। जंगल में इनके विचरण उछलने कूदने से इनके खुरो से वनस्पतियों से जकड़ी हुई मिट्टी, जमीन की खुदाई हो जाती है। कालान्तर में या तो यह जमीन वनस्पति विहीन हो जाती है या बारिश के जल के साथ बह जाती है।

व्याघ्र की उपस्थित वनों, जंगलों के स्वस्थ सुरक्षित जीवन परिचायक है, यदि हम एक व्याघ्र को सुरक्षित रखते हैं तो यह माना जा सकता है कि हमने हमारा 100 वर्ग किलो मीटर का क्षेत्र संरक्षित कर लिया है, अब यहां सबकुछ सुरक्षित हो गया है। बाघ की उपस्थिति में अन्य वन्य जीव वृक्ष पौधे वनस्पति, आवश्यक सामग्री, पर्याप्त जल, शुद्ध वायु भी उपलब्ध है।

किन्तु अत्यन्त दुख की बात है कि मनुष्य

व्याघ्रों के अवैध शिकार में संलग्न है। व्याघ्र के अंगो, अवयवों खाल, हड्डियों, बाल इत्यादि का अन्तर्राष्ट्रीय स्तर पर व्यापार होता है, चीन इसमें प्रमुख देश है। मनुष्य धन के लालच में इस अवैध व्यापार के लिये निर्ममता पूर्वक व्याघ्रों के लगतार अवैध शिकार में लगा हुआ है। अन्तर्राष्ट्रीय स्तर पर अवैध व्यापार पर रोक लगाने के लिए ब्रिज (कन्वेन्सन ऑन इन्टरनेशनल ट्रेड इन इन्डेंजर्ड स्पीशियज) का गठन किया। अवैध शिकार, अवैध व्यापार के कारण व्याघ्रों की संख्या में कमी आ रही है, अवैध व्यापार की हतोत्साहित करना होगा।

औद्योगीकरण एवं पृथ्वी के अन्दर अवस्थित खनिजों के दोहन के लिये वन्य क्षेत्रों को समाप्त कर दिया जा रहा है। जिससे वन्यजीवों, व्याघ्रों का निवास क्षेत्र सीमित हो गया है। व्याघ्र अपने भोजन की खोज में तथा सुरक्षित शरण स्थल/निवास के लिए जंगलों से बाहर मानव बस्तियों की ओर रूख करता है। इन स्थितियों में मनुष्य व व्याघ्रों के संघर्ष की घटनाओं में वृद्धि देखने में मिलती है, अन्ततः इस संघर्ष में मनुष्य अपनी सुरक्षा की दलील देकर व्याघ्र को मार देता है। वन्यकर्म मूकदर्शक बने रहते हैं जबकि अत्यन्त अशक्त, बीमार जिसके बचने या स्वस्थ होने की संभावना न हो अथवा आदमखोर बन गया है ऐसे व्याघ्रों को मारने अनुमति कुछ मान दण्डों के साथ है।

जंगलों में वृक्षों की कटाई से धरती की बहुमूल्य उपजाऊ मिट्टी का क्षरण होता है, यह बहकर नदियों बांधों, नालों में जमा हो जाती है। जिससे नदियों, बांधों में जल भण्डारण की क्षमता कम हो जाती है बाढ़ अनाबृष्टि अतिबृष्टि की स्थिति आ जाती है। बाघ का घर उजड़ता है तो मनुष्य का घर भी उजड़ता है। व्याघ्र व मनुष्य एक दूसरे के पूरक है, जंगल क्षेत्र कम होने से वन्यजीव मानव बस्ती की ओर आ जाते हैं और खड़ी फसलों को नुकसान पहुंचाते हैं। व्याघ्र का संरक्षण हमारी पृथ्वी व दुर्लभ वन्यजीवों, जातियों, प्रजातियों, वनस्पतियों पेड़-पौधों के संरक्षण एवं सुरक्षा का प्रतीक है।

भारत व्याघ्रों का घर है, दुनिया में कुल व्याघ्रों की संख्या के 70 प्रतिशत व्याघ्रों की जनसंख्या

भारत में है। भारत व्याघ्रों के संरक्षण में दुनिया का सिरमौर है। 1972 में प्रोजेक्ट टाइगर की स्थापना की गई। व्याघ्रों के अवैध शिकार पर राष्ट्रीय स्तर पर रोक लगाई गई। वन्यजीव संरक्षण/अपराध नियम 1972 बनाया गया। 2006 में राष्ट्रीय व्याघ्र संरक्षण प्राधिकरण का गठन किया गया, आज भारत के विभिन्न 18 राज्यों में 50 व्याघ्र आरक्ष घोषित किये गये हैं। इनके निश्चित नियम मानदण्ड भी निर्धारित किये गये। व्याघ्रों की संख्या व्याघ्र आरक्ष के वन्य क्षेत्र के क्षेत्रफल के अनुसार यहां क्रिटिकल/कोर एवं बफर जोन की सीमाओं का निर्धारण किया गया। व्याघ्र आरक्ष वन क्षेत्र से सटी हुई बस्तियों, गांवों के निवासियों का विस्थापन कर पुनर्वसन की व्यवस्था की गई है। इसके लिये एक परिवार को 10 लाख रुपये पुनर्वसन के लिये दिये जायेंगे। व्याघ्रों के अवैध शिकार के विरुद्ध वन्यजीव अधिनियम के तहत कठोर दण्ड एवं आर्थिक जुर्माने का प्रावधान है। अवैध शिकार पर रोक एवं नियंत्रण हेतु वाइल्ड लाईफ क्राइम कन्ट्रोल ब्यूरो (वन्यजीव अपराध नियंत्रण ब्यूरो) की स्थापना की गई है। वन्य कर्मियों की सहायता के लिये स्पेशल टाइगर प्रोटेक्शन फोर्स का गठन किया गया है जो आधुनिक हथियारों से लैस प्रशिक्षित होंगे। यह सारी गतिविधियां भारत सरकार के पर्यावरण, वन एवं जलवायु परितर्वतन मंत्रालय के अधीनस्थ होती है।

उपरोक्त तथ्यों को ध्यान में रखते हुये यह निष्कर्ष निकलता है कि पृथ्वी के पर्यावरण मानव, वन्य जीवों पक्षियों, पेड़-पौधे के सुरक्षित एवं सन्तुलित अस्तित्व के लिये व्याघ्र का संरक्षण परमावश्यक है।



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AWARD WINNING POEM ON THE OCCASSION  
OF HINDI DIWAS

मेरा भारतवर्ष

सब से सुन्दर, सब से न्यारा मेरा भारतवर्ष  
सब से सुन्दर, सब से न्यारा मेरा भारतवर्ष

गिरिराज हिमालय रजत मुकुट सा, चम-चम चमके भाल में,  
गंगा यमुना पावन सरिता, हार सुशोभित इसके वक्ष विशाल में,  
दखिन में नित पांव पखारें, सागर जिसके हर हाल में,  
गरमी, सरदी, पावस ऋतुएँ, षट मौसम हर साल में।

ऐसी अनुपम छटा धरा की, लख मन में होता हर्ष है,  
सब से सुन्दर, सब से न्यारा मेरा भारतवर्ष है।

वीर प्रसूता जननी ने, जाए वीर अनेक है,  
रामकृष्ण, भगत चन्द्रशेखर, एक से बढ़कर एक है।  
प्रताप शिवाजी, लक्ष्मीबाई, वीर सुभाष गुरु स्वामी विवेक है,  
गौतम, गांधी, नानक महावीर जिनकी राहें नेक है।

लाल जवाहर, अम्बेडकर से, अटल ध्रुव सदृश है,  
सब से सुन्दर सब से न्यारा मेरा भारतवर्ष है।

हरित क्रान्ति से धवल क्रान्ति से, सर्व जन पोषण समर्थ है,  
कल करखानों, उद्योगों से, अर्जित सम्पन्न अर्थ है,  
गांव-गांव, नगर-नगर चहुँ दिश, वहती विकाश की धारा है,  
आर्थिक स्थिरता आत्म निर्भर बनना यही अब सबका नारा है।  
विविध जातियां धर्म बोली भाषा सभी यहां समदृश है,  
सबसे सुन्दर, सबसे न्यारा मेरा भारतवर्ष है।

आकाश पृथ्वी नाग स्वनिर्मित, अग्नि मिशाल बरसे है,  
आर्यभट्ट रोहणी, ब्रह्मोस देख कर, दुश्मन के मन तरसे है,  
परमाणु परीक्षण सफल पांच पर, जन-जन के मन हरषे है,  
तकनीक वैज्ञानिक, प्रयोग इंजीनियर, ये सब अपने घर से है,  
परम कम्प्यूटर सहस्र एक, यह महाशक्ति उत्कर्ष है,  
सब से सुन्दर, सब से न्यारा मेरा भारतवर्ष है।

सुरेशानन्द धौलाखण्डी

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