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ANNEXURE - I The composition and terms of reference of the Tiger Task Force

No 6 (4)/2005-PT
GOVERNMENT OF INDIA
MINISTRY OF ENVIRONMENT AND FORESTS
(PROJECT TIGER)

Annexe No. 5, Bikaner House
Shahjahan Road, New Delhi-11
Dated the 19th April, 2005.

NOTIFICATION

In pursuant to the decision taken during the second meeting of the National Board for Wildlife held on 17-3-2005, a Task Force for reviewing the management of Tiger Reserves has been constituted. The Members of the Task Force are as follows:

- | | |
|---|---------------|
| (1) Ms Sunita Narain, Director, Centre for Science and Environment. | - Chairperson |
| (2) Shri H S Panwar, Ex-Head, Project Tiger and Ex-Head, Wild Life Institute of India. | - Member |
| (3) Prof Madhav Gadgil, Environmental Historian and Member, National Board for Wildlife. | - Member |
| (4) Shri Valmik Thapar, Member, National Board for Wildlife. | - Member |
| (5) Shri Samar Singh, Ex-Secretary, Govt. of India and Member, National Board for Wildlife. | - Member |

The terms of reference of the Task Force are as follows:

1. Suggest measures to strengthen tiger conservation in the country.
2. Suggest measures to incentivise the local community in conservation of tigers.
3. Suggest measures to incentivise local forest staff posted in sanctuaries/national parks and ensure an effective HR plan for tiger conservation/wildlife managers.
4. Suggest measures to improve the methodology of tiger counting and forecasting.
5. Suggest methods of transparent professional audit of wildlife parks and placing data on tiger conservation in the public domain.
6. Suggest a new wildlife management paradigm that shares concerns of conservation with the public at large.
2. The Project Tiger Division of the Ministry of Environment & Forests would be facilitating the working of the Task Force and render all necessary help.
3. The Task Force should submit its report within three months from the date of this notification.
4. The sitting fees and travel cost would be reimbursed to the Members of the Task Force as per norms.

(DR. RAJESH GOPAL)
IGF & DIRECTOR, PROJECT TIGER

To

- (1) All Members of the Task Force.
- (2) P.M.O.
- (3) PS to MEF
- (4) PS to MOS (E&F)
- (5) PPS to Secretary (E&F)
- (6) PPS to DGF & SS
- (7) PPS to Addl. DGF (WL)

ANNEXURE-II Note of dissent

19, Kautilya Marg,
Chanakyapuri,
New Delhi-110021
Dated: 27.07.2005

To

Ms Sunita Narain,
Chairperson,
Task Force for Reviewing the
Management of Tiger Reserves,
New Delhi

Subject : Dissent Note on the Report of the Task Force for Reviewing the Management of Tiger Reserves

I am enclosing my Note of Dissent on the report alongwith Annexure A to D. It may please be ensured that this Note of Dissent alongwith enclosures is recorded and incorporated in the final report. A soft copy on floppy is also enclosed.

Please acknowledge receipt.

VALMIK THAPAR
Member
Task Force for Reviewing the
Management of Tiger Reserves

NOTE OF DISSENT BY VALMIK THAPAR, MEMBER ON THE DRAFT REPORT OF THE TASK FORCE FOR REVIEWING THE MANAGEMENT OF TIGER RESERVES

- I. The long term survival of tigers will depend on the single most important factor namely inviolate protected areas. A certain minimum area has to be managed exclusively in its natural form for the tiger. The area may be 1%, 1% or 2% or more of the geographical area of this country depending on the political mandate to do so. Let the principle of this be applied in the interest of the tiger. After all it is these areas which provide the water, food and ecological security of the country. On the other hand the entire report is based on a totally different strategy namely that:

“There are two essential strategies here:

1. The habitat must be shared between the people and the tigers, so that both can coexist, as they must. The poverty of one, otherwise, will be the destruction of the other.”

(Page 4, Chapter 02 – A Paradigm Change – Making Conservation Work)

- II. The concept paper on “A Paradigm Change – “Making Conservation work” and the chapter on Co-existence of people raise serious issues that impact on the entire report. Let us not forget that the task force was mandated to suggest measures to save the tiger from vanishing off the face of India. It was a response to an ongoing tiger crisis. Unfortunately, in its eagerness to find ‘eternal solutions’ for all problems afflicting the country at one go, the Task Force appears to have lost this mission-focus and has gone adrift trying to find solutions to all the problems of inequity and social injustice that afflict India. In the process the interests of the tiger’s survival has been relegated and lost sight of.

- III. It is imperative to note that all the ‘potential tiger habitats in the protected areas of India, add up only to 100,000 sq. km. and populations where reproduction is taking place now occupy less than 20,000 sq. km. This is a relatively small fraction of India’s huge rural poor population is exposed to tigers. The premise that there are vast areas of India where tigers and people must be forced to co-exist through some innovative scheme of increased use of underutilized forest resources by involving the local people does not make any sense to tiger conservation especially when the human and cattle populations are constantly rising. The fact is each tiger must eat 50 cow-sized animals a year to survive, and if you put it amidst cows and people, the conflict will be eternal and perennial. Tigers continue to lose out as they did in Sariska (and over 95% of their former range in India). The premise of continued co-existence over vast landscapes where tigers thrive ecologically, as well people thrive economically, is an impractical dream, with which I totally disagree. Such dreaming cannot save the tiger in the real world. On the other hand such a scenario will be a “no win” situation for everyone and result in further declines and the eventual extinction of tiger populations. Alternatives where tigers have priority in identified protected reserves and people have priority outside them have to be explored fast and implemented expeditiously. There is no other way. The present concept of a ‘new’ coexistence is an utopian idea and impractical and will not work. This I am absolutely clear about.

Blaming strict nature reserves and conservation laws where tigers have priority, for all the poverty and inequity driven ills that plague our vast country is pointless polemics: These ills are consequences of the failure of development, economics and politics of the country and society as a whole and cannot be simple-mindedly blamed on conservationists.

- IV. In the chapter 5.8 “The Co-Existence Agenda”, it is stated that:

“Exacerbating tensions with protection

If this was not bad enough, recent events have made things even more unbearable for the people who live in these reserves.

In February 2000, the Amicus Curiae (in the omnibus forest case ongoing in the Supreme Court), had filed an application seeking The court in its order dated 14.2.2000 ordered that “in the meantime, we restrain the respondents from ordering the removal of dead, diseased, dying or wing-fallen trees, drift wood and grasses etc. from the national park or game sanctuary or forest.”

This order has led to a number of directions:

But matters (and confusion) did not end there.

On October 20, 2003, the Ministry of Environment and Forests wrote to all chief secretaries a letter detailing the guidelines for diversion of forest land for non forest purposes under the Forest Conservation Act 1980. ...

But even this was not enough.

On July 2, 2004, the Central Empowered Committee (CEC) set up the Supreme Court to assist it in the forest matters, wrote to all state governments

Impact on conservation

The combined result of these directions, orders and clarifications has been that all hell has broken loose in the protected areas. ...”

The report gives an impression that the Hon'ble Supreme Court's orders dated 14.2.2000, 3.4.2000, 10.5.2001, and February, 2002, application moved by the Amicus Curiae pursuant to which some of the above orders have been passed, guidelines issued by the MOEF and clarification dated 2.7.2004 issued by the CEC for implementation of the Hon'ble Supreme Court's order are unwarranted, misplaced and that these have been issued without application of mind. This view is totally unacceptable. I firmly believe that the Hon'ble Supreme Court's orders have been most invaluable in furthering the cause of conservation and the protection of wildlife habitat. The large scale destruction of the tiger habitat due to massive mining, tree felling, supply of bamboo to paper mills, diversion of protected area habitat for ill conceived projects, etc. have been controlled significantly something which would not have been possible but for the intervention by the Hon'ble Supreme Court.

- V. The concept paper simply ignores what sound science tells us about tiger conservation. It fails to note the deteriorating protection of the tiger reserve, and the need to put in place alternative, effective mechanisms to protect the core breeding populations of tigers in these protected areas. “A Paradigm for Change” should have included a complete revision in the process of protection and enforcement coupled with reform. Though this is suggested in other chapters its absence in the concept is perplexing. In the chapter on Co-existence with people the recommendation of relocating people will come into direct conflict with the recommendations on co-existence of people. In the end the recommendations would be a bundle of contradictions and the outcome will come to naught. The suggested measures because of the inherent contradictions will only cause further degradation of the tiger habitat and the tiger will be the end sufferer. After all why on earth would anyone want to leave a protected area when the co-existence package is so attractive? We are only too aware that there are criminal elements out there ready to kill the tigers and plunder their home under the cover of livelihood related uses given a chance. The report of the CBI about Sariska has confirmed this. Let us not overlook the fact that our mandate is about securing the future of the tiger and this can only be done in the framework of our laws. Let there be no doubt about our mandate.
- VI. Even after many rounds of discussions, the final chapters have changes that were never discussed. For instance few examples are:
- (i) the decision taken by the Task Force was that the Hon'ble Prime Minister should Chair the Steering Committee of Project Tiger. This was not “either or” with the National Board of Wildlife (Chapter – The Way Ahead);
 - (ii) it was agreed that the Wildlife Crime Bureau should be headed by a senior officer in the super time scale. Now added to this is “the person should report to the Additional Director General of Forests”. Can this make any sense? All it will do is to prevent his independent functioning in such sensitive investigative job. This is a typical bureaucratic approach to make the system ineffective (Chapter – Domestic Enforcement – 3.3(a));

(iii) regarding the State Empowered Committee of Rajasthan, I had clearly mentioned that the extension of the term of the Committee was to do with the census the Committee was carrying out. The Committee had taken a series of actions from its inception. Now the said paragraph states “...but has now extended its term by another three months which has delayed the urgent action needed” (page 7 of Chapter 2 – The Sariska Shock). This is factually incorrect and misleading;

(iv) there was a boxed section in the Chapter 3.5 “The Science Agenda” on how senior researchers and scientists have been hounded and harassed by officials in the Parks. This has now been totally deleted though it was earlier agreed to be retained.

VII. I am also quite shocked how the report has glossed over the role of the MOEF including the Project Tiger Directorate in recent years. In the report given by me in the first meeting itself on 29th April, 2005, I had clearly brought out the role of the Project Tiger in the debacle that took place in Sariska and the extinction of tigers in Keladevi Sanctuary. It was then pointed out by me that there was need to inquire into and fix the responsibility for the debacle. The vital issues raised in the above report find no mention in the final report without any apparent reasons. Since then more than 21 tigers have been found to be missing in Ranthambhore Tiger Reserve. This is a very serious issue. Again very little of this finds place in the report (ANNEXURE-D).

I had earlier sent to you (i) a draft report (now final) identifying specific problems of tiger conservation and giving specific solutions (ANNEXURE-A); (ii) an action plan for co-existence of people (ANNEXURE-B); and (iii) objection to Research and Study Chapter (ANNEXURE-C). I have also objected to the sub-cadre in wildlife and have instead proposed the alternative of creating a panel of suitable officers (Para 1(I to v) of Part II of my report (ANNEXURE-A). I have also urged a Central Forest and Wildlife Protection Force may be set up (Para 2(vi) of Part II) of my report (ANNEXURE-A).

Copies of the above are enclosed as ANNEXURE-A to ANNEXURE-C to this Note of Dissent. These together with ANNEXURE-D form part of my Dissent Note.

Before parting, I am constrained to observe that sadly much of the report has become focused on how to improve the life of people inside protected areas rather than protecting tigers inside them. This people focus should have been the job of another task force. The focus on the tiger has therefore blurred since the priorities have shifted. In a way this is tragic and if some of the recommendations are endorsed in policy they could have dangerous repercussions for the tiger.

(Valmik Thapar)
Member
Task Force for Reviewing the
Management of Tiger Reserves

Dated :27.07.2005

DISSENT NOTEANNEXURE-A**A PLAN OF ACTION TO ENSURE THE LONG TERM SURVIVAL OF TIGERS****INTRODUCTION**

1. The Sariska tiger crisis happened because (a) the Tiger Reserve was completely mismanaged thereby leaving the field open for poachers; (b) the actual number of tigers was much less than that reflected in the earlier census figures because the census was not participatory, transparent and scientific, the total count pugmark census methodology used since the 1970s has been proven inaccurate; and (c) excessive human and livestock disturbance right across the area.

2. The Sariska tiger crisis is symptomatic of most of India. In 2004-2005 local extinctions have taken place not only in Sariska Sanctuary but also in Kela Devi Sanctuary in Rajasthan. These two sanctuaries between them lost 24 tigers. There was also a sharp decline of 21 tigers in Ranthambhore Tiger Reserve. All the seven tigers in the Palpurkuno Sanctuary and all the six tigers in Rani Durgawati Sanctuary in Madhya Pradesh have been wiped out and are now locally extinct. The decline across the North East including Namdapha and Dampha Tiger Reserves coupled with the declines in places like Palamau Tiger Reserve, Valmiki Tiger Reserve, Dudhwa Tiger Reserve, Indrawati Tiger Reserve, Panna Tiger Reserve and Nagarjuna Sagar Tiger Reserve reflect the grim national scenario. The States have obviously not given the required priority to the issue of conservation and protection of tigers notwithstanding the existence of many reports, recommendations and the Wildlife Action Plan that are drawn up from time to time after involving experts at the national level. The non-implementation of the National Wildlife Action Plan (2002-2016) particularly stands out starkly in this regard.

3. The tremendous pressure on forests and the unsustainable levels of biomass removals by local people as well as by the forest department and rampant grazing have adversely affected the National Parks/sanctuaries/reserve forests. The State of the Forest Report, 2003, clearly brings out that the forests having more than 70 per cent density is only 51,285 sq. kms. (1.56 per cent of this country's geographic area). Further, an area of 26,245 sq. kms (0.75 per cent of country's geographic area) of dense forests

having more than 40 per cent density has been lost in just two years. Out of this area of 26,245 sq. kms of dense forests, a total of 23,140 sq. kms is in potentially rich tiger habitats and includes, among others, States like Assam, Jharkhand, Karnataka, Madhya Pradesh, Maharashtra, Uttar Pradesh and Uttranchal. The trends revealed in this latest report are exceedingly grave and disturbing and, if not reversed, could have serious consequences for the tiger's forests. There would be 300,000 sq. kms of potential tiger habitat. Less than 10% contain breeding population.

4. The unregulated biotic pressure has resulted in a conflict of interests between the local population and the forest management with the real threat of large scale destruction of wildlife habitat looming on the horizon. Encroachments, delayed settlement of rights of the people and the diversion of forests for ill conceived projects have compounded the problems. In this background the populist approach of liberally regularizing encroachments and grant of pattas in forest areas and management interventions in the form of dry bamboo extraction, underplanting, etc. will both mean further fragmentation inviting irreversible ecological disaster. Ultimately the tiger itself will be on the brink of extinction.

5. Tiger populations breed well and grow rapidly in population in habitats without incompatible human uses. They cannot co-exist with people particularly in a situation where both human impacts and livestock grazing are continuously on the increase. In the Ranthambhore Tiger Reserve the tiger has gone locally extinct in Kela Devi Sanctuary and Sawai Mansingh Sanctuary in the year 2005. The reason for this is the presence of 52,510 goats, 10178 buffaloes, 4928 cows and even 37 camels. Not to talk of 40 villages and their ever increasing human population. One wonders whether this sanctuary has been declared to protect forest and wildlife or cattle? The long term survival of tigers will therefore depend on how secure and inviolate are the protected areas in which they live.

6. In the above background an attempt has been made to highlight the problems (Part I) under six heads as below :

- i) Forest Personnel;

- ii) Infrastructure;
- iii) Biotic Pressure on the Wildlife Habitat;
- iv) Policy and Enforcement Issues;
- v) Research, Science and Monitoring ; and
- vi) Funds Related Issues

7. Similarly, an attempt has also been made to provide possible solutions to the problems listed in the preceding para within the existing legal and administrative framework that exists in India. The solutions suggested (Part II) have been indicated under the following heads :

- i) Manage the Protected Area with Competent Officials so that Problems are Resolved ;
- ii) Sensitize the Centre and State Administration to the Needs of the Tiger;
- iii) Prevent Destruction of the Tiger's Habitat;
- iv) Strengthen Research and Training Across Tiger Habitats;
- v) Provide Timely Funds to all Specially Designated Tiger Areas;
- vi) Legal Support; and
- vii) International Cooperation.

8. The Plan of Action drawn up identifies the problems and provide solutions without becoming encyclopedic. The problems have to be tackled on a war footing to ensure that the solutions are faithfully implemented in the field in a time bound manner. The need of the hour is implementation.

9. Issues related to personnel matters need to be given a very high priority because the officials who manage the tiger's landscape, and the local people, have to be committed and dedicated and trained to

be effective. This also raises issues like how do you create a system to ensure that the best person is on the job and how do we make him fully effective in that job? Particularly given that the State Governments really make the final decisions in all personnel posting in reserves. How do we attempt this?

10. Similarly, to minimize human disturbance how do you involve the forest management and the local inhabitants? Ultimately both the forest management and the local people have to develop a sense of pride and satisfaction in what they are doing if the forests and wildlife are to be conserved and protected. Today the area in which tigers live undisturbed is grossly inadequate and therefore the long term survival of the tiger hangs in the balance.

11. There has to be close coordination and dovetailing of the activities initiated by the National Level Committee headed by the Prime Minister, the State Level Committee headed by the Chief Minister and the National Advisory Committee on Research so that they all move and act in tandem and become receptive mechanisms for change.

12. It is with all these factors in mind that this plan of action has been spelt out in a simple and straight forward way without too much detail which wherever further required has been left to the appropriate expert administrative and research committees. This Plan of Action has been so structured so as to ensure that the existing delicate balance of responsibility and power between the Centre and the State is not disturbed.

PART I

THE PROBLEMS

1. FOREST PERSONNEL

- i) Lack of professionally trained, committed, competent and physically fit Field Directors and other officials.
- ii) The Forest Department's mindset is that of an owner not a custodian.
- iii) There is no system of selective appointments to the sensitive posts at various levels in the PAS/Tiger Reserves. (Instead many are treated as punishment postings).
- iv) Vacant posts numbering nearly 5000 in PAS/Tiger Reserves.
- v) The average age of forest guards is above 50 years.
- vi) No effective system of specialized training (induction stage, in service etc.)
- vii) Transfer policy – no fixed tenure. Irrational transfers on extraneous considerations.
- viii) Lack of incentives including special pay, housing, etc.
- ix) Insufficient promotion avenues –forest guards remain stagnant for years.
- x) Poor service conditions for front line staff in terms of provisions for ration, special pay, family accommodation, working hours, schooling, medical facilities, compensatory leave, life and other

- insurance policies etc.
- xi) Physical fitness programme – No training or drill centres on site.
- xii) Lack of effective disciplinary action system against the delinquent officials. Punishment should be swift and act as a deterrent.
- xiii) Lack of priority for deployment of armed police in time of crisis/to sensitive area.

II. INFRASTRUCTURE

- i) Forest Officials are not empowered to use fire arms for protection of Government property/forest produce/wildlife except in Karnataka/Tamil Nadu.
- ii) Inadequate as well as out dated fire arms exist with the officials and wherever available no proper training programme/facilities exist.
- iii) Lack of uniform, shoes, patrolling kit for the staff.
- iv) No/inadequate wireless hand-sets for communication.
- v) Inadequate mobility (motorcycles, jeeps, trucks, boats, etc.).
- vi) Inadequate forest chowkies/posts, anti poaching camps, patrol camps and staff quarters.
- vii) Poor service and maintenance of vehicles, wireless, chowkies/checkposts, buildings, equipments, etc.

III. BIOTIC PRESSURE ON THE WILDLIFE HABITAT

- i) Settlement of acquisition rights under Wild Life (Protection) Act, 1972 pending for decades in PAS.
- ii) No effective steps taken to prevent and remove encroachments.
- iii) Very poor progress of relocation of villages located inside the National Park/sanctuary.
- iv) Inadequate compensation for the loss of life and property including crops resulting in anger and deliberate damage both to wildlife and habitat.
- v) Habitat fragmentation due to ill conceived projects/schemes which have adverse impact on PAS.
- vi) Absence of adequate wildlife corridors connecting one PA/Tiger Reserve with another.
- vii) Conflict of PA with local community (within as well as in peripheral villages).
- viii) Rampant legal/illegal mining continues.

- ix) Unregulated and poor tourism management.
- x) Excessive/illegal grazing and removal of fuelwood, MFP, etc. continues at unsustainable levels.
- xi) Presence of roads (State and other roads) with heavy traffic passing through PAS.
- xii) Poor management of tigers outside PAs/tiger reserves.

IV. POLICY AND ENFORCEMENT ISSUES

- i) Lack of will at higher echelons of political and administrative set up at both Centre and State levels (committees hardly meet, decisions kept pending, whatever decision taken remains unimplemented, posts not filled, dual charge, powers of transfer/posting misused, etc.).
- ii) Ineffective role of the MOEF in convening meetings of committees, decision taking delayed, poor follow up action on decisions taken, appointments etc. Endless recommendations of expert committees gathering dust in MOEF for years e.g. Subramanayam Committee.
- iii) Lack of a grasp of human and ecological concerns in wildlife conservation resulting in poor policy.
- iv) National Wildlife Action Plan (2002-2016) only on paper. Completely ignored and remains unimplemented.
- v) Lack of professionally trained wildlife officials leading to poor enforcement of forest and wildlife laws which is a critical component in the protection work.
- vi) Lack of coordination between Centre and State in the implementation of policies, laws, guidelines and directives.
- vii) Lack of coordination amongst the various agencies/departments.
- viii) National Wildlife Crime Bureau is yet to be set up even though decision to create it was taken eight years ago.
- ix) Ineffective intelligence collection and networking at local level, state level, national level and international level, and absent or ineffective in most States.

V. RESEARCH, SCIENCE AND MONITORING

- i) No wildlife management manual – the Protected Area manager has no guidelines to refer to and no clear prescription to follow which leads to taking ad hoc decisions.
- ii) Absence/poor quality of Management Plan for Protected Area. Wherever they

- exist the prescriptions are poorly implemented due to lack of funds or expertise.
- iii) Poor scientific input in management and monitoring of PAs.
 - iv) Unscientific estimation of tiger population – Grossly inflated because of defective methodology. Also lacks transparency.
 - v) Size of the breeding tiger population depends on good protection/adequate preybase, less disturbance and adequate water availability.
 - vi) Independent scientific researchers discouraged, even harassed.
 - vii) Poor management of the area (habitat, animals, people tourism etc.). Should include independent ecological audit and monitoring.

VI. FUNDS RELATED ISSUES

- i) Grossly inadequate allocation – (State plan, Central Plan).
- ii) Diversion of Central assistance – in absence of proper funding mechanism.
- iii) Earmarking of funds necessary so that it is not diverted for non-forestry/non-wildlife activities.
- iv) Delay in disbursement and utilization of funds – Late release of funds results in it either being misutilised or remaining unutilized because it is not possible to use it before the financial year ends on the 31st March of that particular year.
- v) Inadequate delegation of financial powers – purchases etc.
- vi) No funds for intelligence gathering.

PART II

SOLUTIONS

I. MANAGE THE PROTECTED AREA WITH COMPETENT OFFICIALS SO THAT PROBLEMS ARE RESOLVED

- i) Prepare a panel of officials who have evinced keen interest in wildlife – at the level of Field Director (Conservator of Forests)/ Deputy Conservator of Forest level), A.C.F. and RFO – Make a small beginning – say with 10 Field Directors, 25 ACFS, 50-100 RFOs and then increase the numbers.
- ii) The panel to be drawn up by the Ministry of Environment & Forests in consultation with independent experts and State Governments. The detailed procedure and standards for this purpose to be laid down by the National Committee headed by the Prime Minister (refer para II (i)).
- iii) The empanelled officers may be considered for posting in any of the premier PAs within his home cadre and in other States (on State to State deputation basis).
- iv) In addition to forest officers, the panel may include non-government experts and willing officers from other services on deputation. Lateral induction may also be resorted to.
- v) Extensive training on a continuous basis to empanelled officials.
- vi) Security of tenure to be ensured – officials

to be shifted before completion of tenure only in exceptional cases with reasons to be recorded and communicated along with transfer orders.

- vii) Like some of the specialised government agencies the tenure may be extendable in deserving cases – no cap need be fixed.
- viii) Eligibility for in situ promotion to ensure continuity.
- ix) Special pay and facilities for officials posted in the field.
- x) Mechanism for swiftly fixing accountability and responsibility against lax/corrupt/defaulting officials.

II. SENSITISE THE CENTRE AND STATE ADMINISTRATION TO THE NEEDS OF THE TIGER

- i) A National Tiger Management Committee, at the Central level, under the Chairmanship of the Prime Minister with representatives of the Ministries of Environment and Forests, Home, Finance, Tribal Welfare, Rural Development and the Planning Commission as well as independent experts as members should be constituted to provide policy input and inject innovative reforms in the system. The said Committee, wherever required, may intervene to provide the requisite political and administrative inputs and

- support at the Central/State level. The Central Committee will regularly interact with the State Committee chaired by the Chief Minister.
- ii) A High Powered Committee under the Chairmanship of the Chief Minister with the Forest Minister, Chief Secretary, Secretaries looking after Departments of Forests, Home, Finance and Planning, Principal Chief Conservator of Forest and Chief Wildlife Warden as members to be constituted immediately for taking decision for filling up vacant posts, imparting training to the front line staff, providing incentives to the officials, improving service conditions and facilities and the deploying of armed police in sensitive areas in times of crisis. This Committee will also deal with other administrative issues such as empowering the use of fire arms, providing uniforms, patrolling equipment, wireless networks, vehicles, and the allocation and release of adequate funds for wildlife conservation with adequate delegation of financial powers, etc.
 - iii) To accord priority and focus on the conservation and protection issues, a separate department for Forest and Wildlife should immediately be carved out within the Ministry of Environment and Forests. It may be mentioned that during the meeting of the National Board of Wildlife held on 17.3.2005 under the Chairmanship of the Prime Minister, there was a general consensus for a separate Department for Forest and Wildlife.
 - iv) Immediate implementation of the National Wildlife Action Plan (2002-2016). Funds to be earmarked for the implementation of this Plan.
 - v) The Wildlife Crime Bureau should immediately be made effective preferably before 1st September, 2005, and even after it is set up the CBI should continue to play a lead role.
 - vi) A Central Forest and Wildlife Protection Force should be constituted by drawing officials on deputation from Police, CRPF, CISF, ITBP, etc. – This fully equipped and trained force can be deployed at short notice to any trouble spot.
 - vii) The officials posted in PAS should not be used for election or any other non-protection work. Similarly the vehicles belonging to the PA shall not be diverted for any work relating to election or other duties.
 - viii) Projects like eco-development etc. should not be handled by the Forest Department whose sole job must be focused on protection.
 - ix) The environmental impact of all commercial and developmental projects proposed to be undertaken in and around the tiger's habitat needs to be thoroughly scrutinized by experts before being cleared.
 - x) The impact of externally aided projects in the field of wildlife conservation and protection has by and large been negative and therefore should be discouraged.
- ### III. PREVENT DESTRUCTION OF THE TIGER'S HABITAT
- i) Settlement/acquisition of rights in the PAS under the provisions of the Wild Life (Protection) Act, 1972 should be undertaken on priority.
 - ii) A time bound programme for the relocation of villages from within the protected areas should be prepared and implemented at the earliest. The rehabilitation plan should ensure that the compensation package is the best possible, liberal and attractive so that it leads to a better quality of life. As far as possible the relocation process should be outsourced with the Forest Department playing only a catalytical role.
 - iii) Since the above matter is of critical importance, the State Committee under the Chairmanship of the Chief Minister should regularly review the all round progress. The funds for this purpose may be made available by the MOEF, Ministry of Tribal Affairs, Ministry of Rural Development and the State Governments. Other sources like the Compensatory Afforestation Fund may also be tapped.
 - iv) Prevention and eviction of encroachments should be given emphasis.
 - v) The villagers in and around the PAs should be effectively involved in conservation and protection of the area. Some of the suggested measures are :
 - a) creation of village patrols where local villagers are trained, given monthly remuneration and like home guards can be effectively deployed. A specially designed course may be drawn up for their training;
 - b) use of local villagers for water and

- soil conservation, fire protection, as tourist guides and interpreters and in any other P.A. based activity. Suitable training courses for these activities may be drawn up;
 - c) networking local people in intelligence gathering against timber mafia and poachers;
 - d) build up close rapport with forest staff and local anti-poaching patrols (to use their traditional knowledge of the area) to track poachers;
 - e) impart training for their involvement in scientific research (special courses that are site specific to the ongoing research can be conducted);
 - f) the revenue from tourism collected by the Park Authorities may be used for the establishment of a Village Trust Fund for engaging the local population in the protection of the PA – to be administered by the village elders. Some of this revenue could also go towards staff welfare;
 - g) the local population may play an effective role in conservation and protection of the area by establishing Management Boards/Committees for the PA consisting of representatives of the villages, Park officials and locally based conservation NGOs and scientists. This Management Board/Committee may meet every three months in order to encourage a transparent and participatory approach towards management and thereafter will regularly send its recommendations to the State Level Committee;
 - h) rehabilitation of hunting tribes, traditional poachers living in and around PAs should be done on a priority basis (as was done in Periyar). One way of rehabilitating them is by involving them in anti-poaching works which gives rich dividend. They could also be resettled away from forest areas and then given alternatives for their livelihood. This would need to be closely monitored;
 - vi) Specific prescriptions for tiger protection should be incorporated in the Working Plans in respect of identified tiger rich habitats in forests outside the protected areas.
 - vii) Priority needs to be accorded for identification and protection of wildlife corridors for the movement of tigers/wildlife from one PA/habitat to another.
 - viii) Imposing a cess on hotels and tour operators who depend on the PA for their business. The cess will be determined by the State Committee under the Chairmanship of the Chief Minister. The cess can be used for the welfare of the local population such as schooling, medicine, etc.
 - ix) efforts should be made to provide alternate routes to the existing roads/National/State Highways passing through the PAs which are playing havoc with the tiger and wildlife.
 - xi) Mining (new leases as well as renewal cases), hotels and resorts and other activities which have a negative impact on the habitat and wildlife should not be permitted within the safety zone (say one km. from the boundary).
 - xi) Protected Areas affected by insurgency/naxalites and which have good forests and tiger habitats require special attention through special measures. – Both Central and State Committees will deal with this issue.
 - xii) Under no circumstances mining, agriculture, regularization of encroachment and other activities which lead to fragmentation/destruction of the habitat should be permitted.
- Many of the above activities can be prohibited/regulated under the existing provisions of the Wild Life (Protection) Act, 1972 and also by issuing of notification under the Environment (Protection) Act by the MOEF.

IV. STRENGTHEN RESEARCH AND TRAINING ACROSS TIGER HABITATS

- i) A Wildlife Management Manual/Code should be prepared in a time bound manner by the MOEF with the assistance of the Wildlife Institute of India. It should be ensured that every PA is managed as per the prescriptions of the Management Plan for that particular P.A. The Manual would be akin to a handbook that provides detailed information for the better management of the P.A.

- ii) An important component of the Management will be a detailed prescription for tourism, managing it and ensuring both respect for the tiger and the visitor.
- iii) A National Level Research Advisory Committee with independent experts and institutional members may be constituted to give inputs/frame guidelines from time to time regarding: (this should be an autonomous body free from government shackles so that they render independent and objective advise fearlessly)
 - a) tiger census methodology (to be decided after a complete review by all scientists associated with this especially because of the serious limitations of the total counts in the pug mark methodology);
 - b) research, monitoring and ecological audit; and
 - c) issue of transparent guidelines for Research Projects including redressal of grievances expeditiously.
- iv) Revamp the course and curriculum at the IGNTA which imparts training to IFS probationers and also organize special refresher courses for the serving IFS officers.
- v) A full fledged Centre for Wildlife Studies consisting of (a) forest officials and other experts on deputation to the Indira Gandhi National Forest Academy; (b) visiting faculty consisting of reputed national level experts; and (c) experts from the Wildlife Institute of India, etc. should be established in the Indira Gandhi National Academy of Administration.
- vi) The Centre for Wildlife Studies in coordination with the MOEF should be made responsible for the preparation of the curriculum and imparting training for the IFS probationers, conducting refresher courses and specialized studies/research., etc.
- vii) This Centre may also be used for providing specialized refresher courses/training programme for other officials (from Forest Department as well as other Departments).
- viii) A detailed annual presentation can be made to NBWL/Prime Minister's Committee by the National Advisory Board of Research in order to apprise him each year regarding the prevailing state of affairs.

V. PROVIDE TIMELY FUNDS TO ALL SPECIALLY DESIGNATED TIGER AREAS

The Central assistance, instead of being routed through the normal State Government machinery, should be released directly to the field staff on the existing pattern of release of funds by the MOEF through the Forest Development Agency (FDA). This will not only ensure timely release and utilization of funds but responsibility and accountability can also be easily fixed for non-utilization and misuse of funds. A system of concurrent financial audit as well as ecological audit should be put in place

VI. LEGAL SUPPORT

- i) Legal cells headed by experienced legal officers should be set up in each State for imparting training to officers/staff in investigative skills, collection of evidenced, preparation of charge sheets/complaints etc.
- ii) The Legal Cell will vigorously and closely pursue and monitor serious cases of poaching etc. They shall in such cases appoint special counsels/senior lawyers so that cases are taken to their logical end without delay.
- iii) Regional Forensic Laboratories to be established and recognized under the provisions of Code of Criminal Procedure. The opinion/reports of these laboratories are accepted as evidence in the Courts.
- iv) Provide prompt and effective legal support to officers/staff facing harassment on account of false retaliatory cases filed against them.
- v) Should also expedite cases (departmental or criminal) against officials by pursuing them vigorously.

VII. INTERNATIONAL COOPERATION

In some areas, India's tiger habitats are contiguous across national boundaries with Nepal, Bhutan, Bangladesh and Myanmar. These transboundary issues need to be taken up at bilateral level as also at SAARC meetings so that a joint/special task force could be set up for better protection and management of these areas. This will greatly help the present population of tigers that move to and fro across international borders.

DISSENT NOTE

ANNEXURE-B

RECOMMENDATIONS OF THE TASK FORCE REGARDING COEXISTENCE OF PEOPLE IN THE PROTECTED AREAS – DRAFT PREPARED BY VALMIK THAPAR

BASIC CONSERVATION STRATEGY

- i) The areas falling within the National Parks should be made inviolate. People living in these areas should be relocated and their rights acquired under the WLPA. If any village is not found of strategic importance within the National Park the boundary of the park should be altered to exclude such village. The excluded village may be included in the adjoining sanctuary, if any. Needless to say that rehabilitation package should be the best available and attractive.
- ii) Relocation from the sanctuary should be restricted to the minimum possible taking into account the conservation value of the area i.e. the relocation should be restricted to the area which are absolutely vital for the protection of tigers and are to be treated as “core area” for tiger conservation.
- iii) A detailed time bound plan for relocation of villages identified should be prepared and funds required should be made available at the earliest.
- iv) It should be made clear that the existing provisions of the W.L. (P) Act. allows the right holders to carry out their legitimate activities such as agriculture, grazing, etc.
- v) Pursuant to Hon’ble Supreme Court’s order dated 14.2.2000 in IA No. 548, no harvesting/removal of forest produce including minor forest produce is permissible from national parks/sanctuaries.
- vi) It may be clarified that the WLPA allows making of alternate arrangements for making available fuel, fodder, and other forest produce to the existing right holders (Section 18-A(2)). Section 29 of WLPA provide that any forest produce required from the sanctuaries should be distributed for meeting the personal bona fide needs of the people living in and around the sanctuaries (and not for any commercial purpose).
- vii) In view of above legal provisions, the MOEF may move the Hon’ble Supreme Court for

modification of its order dated 14.2.2000 to enable the legal right holders to enjoy the benefits in the sanctuary and in the areas where final notifications have not been issued. The CEC has filed its report dated 4th November, 2004, which is under consideration of the Hon’ble Supreme Court. The MOEF may intervene in the said I.A. and modification of the said order.

- viii) A number of sanctuaries have been notified which include non-strategic areas of very low conservation value with many villages. A time bound exercise of rationalizing the boundaries of such sanctuaries should be undertaken by the MOEF in consultation with the States. This process will result in the exclusion of many areas. This will be of great help in mitigating the sufferings of a large number of people.
- ix) Even in non-strategic areas of the sanctuaries, if the villagers volunteer to shift out, such shifting should be facilitated.
- x) The villages from the sanctuaries may be allowed to be shifted into reserve forest/protected forest/unclassed forest without payment of compensatory Afforestation, NPV, etc. For this purpose a simplified procedure for granting approval under the F.C. Act should be formulated.
- xi) For the villagers which remain inside the sanctuary, innovative interventions within the framework of the law and the Supreme Court’s order should be introduced to ensure that the bona fide livelihood needs of the local people are taken care of. These may include :
 - a) preference in employment in various government departments;
 - b) engagement in water and soil conservation and other forest management measures;
 - c) involvement in village protection force;
 - d) passing on part of cess collected from nearby hotels;
 - e) employment in private sector hotels

and in other developmental projects around the park;

- f) tourist guides, trackers, intelligence gatherers, etc.

The above list is indicative and not exhaustive. The management plan should include a detailed prescription for involving the local population in the park management, mitigating man-animal conflict with a view to improve their quality of life.

The existing provisions of the Wild Life

(Protection) Act, 1972 provides for meeting all the concerns and requirements of the local people. The only issue is its effective implementation, therefore, there is no need for any review/revision of the Act.

The MOEF's directions are in consonance and in compliance of Hon'ble Supreme Court's orders and therefore cannot/should not be withdrawn. It may be mentioned that the Hon'ble Supreme Court in Pradip Krishen v/s UOI (AIR 1996 SC 2040)+ has specifically directed to complete settlement proceedings expeditiously.

DISSENT NOTE

ANNEXURE -C

OBJECTION BY MR. VALMIK THAPAR – MEMBER TIGER TASK FORCE ON RESEARCH AND SCIENCE TO BE INCORPORATED IN THE REPORT

Mr. Valmik Thapar Member of the Task Force has submitted the following note of dissent in relation to the recommendations on approaches to be adopted for monitoring tiger populations in the future.

The past history of Project Tiger is strewn with failures to reform the monitoring system due to a lack of attention to detail and ignoring of inputs from scientists seriously engaged with tiger conservation issues.

Since then the proposed scheme has been thoroughly examined and critiqued by leading carnivore ecologists who have specialized in population survey methodologies for decades at the specific request of the Task Force. These inputs have come from Dr. Ullhas Karanth, Dr. Raghu Chundawath, Dr. M. D. Madhusudan, Dr. AJT Johnsingh, Dr. SP Goel, Dr. Yoganand (the last three are from the Wildlife Institute of India). All these analysts, have endorsed the broad idea of Project Tiger taking up countrywide distribution surveys of tiger under a new sampling-based paradigm (instead of total count censuses). But they all have pointed out several flaws in the

proposed scheme. Their critique covers the issue of the very design of the surveys in proposed stages, practical problems in implementing many of the survey methods in field conditions, problems of analysis as well as with the demonstrated example from Satpura-Maikal Pilot Project which actually has not implemented the occupancy estimation approach. Given this Valmik Thapar strongly believes that a technical panel of experts proposed by the Task Force should examine all these aspects of the proposed methodology before it is implemented in order to resolve the problems that are admitted to exist with this protocol. This should be done within a time frame of just 3 months. Such a process will ensure the removal of any flaws and errors which may be present and prevent costly expenditures from taking place before the method has been vetted. This safeguard will be vital to this new step we are taking.

Therefore Valmik Thapar disagrees with the view that the protocol regarding tiger estimation should be implemented immediately and even before the technical panel has a chance to examine and improve it.

DISSENT NOTE

ANNEXURE- D

SPECIAL NOTE

**From: Valmik Thapar
Member – TIGER TASK FORCE (TTF)**

**To: The Chairman and all other Members,
for the meeting of the Task Force on 29th April, 2005.**

Date: 28th April, 2005

The Tiger Task Force (TTF) was born from a crisis that resulted in the extinction of the tigers in Sariska and Kela Devi Sanctuaries. The Prime Minister described the state of affairs as the worst crisis of wildlife since the inception of the Project Tiger.

OBJECTIVE

The objective of this note is to spell out short term and long term measures that will help save wild tigers. I presume that is the objective of the TTF.

SHORT TERM MEASURES

- (1) Deployment of additional Home Guards and Armed Police in different tiger reserves across India which are facing serious problems. This is an essential preventive measure pre-monsoon 2005.
 - (a) Manas Tiger Reserve, Assam
 - (b) Namdapha Tiger Reserve, Arunachal Pradesh
 - (c) Simlipal Tiger Reserve, Orissa
 - (d) Valmiki Tiger Reserve, Bihar
 - (e) Palamau Tiger Reserve, Jharkhand
 - (f) Nagarjuna Tiger Reserve, Andhra Pradesh
 - (g) Indravati Tiger Reserve, Chattisgarh
 - (h) Panna Tiger Reserve, Madhya Pradesh
 - (i) Pench Tiger Reserve, Madhya Pradesh
 - (j) Tadoba Tiger Reserve, Maharashtra
 - (k) Dudhwa Tiger Reserve, Uttar Pradesh
- (2) Ranthambhore and Sariska Tiger Reserve are not on this list as the Government of Rajasthan have already taken essential steps of deploying more than 300 Home Guards and armed Police on the periphery as a precaution against armed intruders. All regular raids are being conducted against possible poachers and unwanted elements. A full infrastructure of vehicles has

also been provided for patrolling (details of this can be made available from the State as an example of what can be done as a preventive step for other States to follow).

DISSEMINATE ALL INFORMATION. This is vital as a case study so that everyone realises what happened and can learn a lesson from it to prevent repeats. This case study should be sent across India as an example of what can happen.

WHAT HAPPENED?

Let's not forget as far as Sariska is concerned the Director of the Reserve provided an early warning in his census report on 25th May, 2004. It remained unheeded to by the Chief Wildlife Warden of Rajasthan and **he only communicated it or part of it on August 17th, 2004 to the Directorate of Project Tiger who did not react till February 2005 after each tiger had been wiped out. I quote below from it.**

On 25-4-2004 the Field Director of Sariska reported to the Chief Wildlife Warden of Rajasthan and stated **“on the basis of the available evidence and on ocular analysis of the pugmarks and movement of tigers the team reached a rough estimate that the number of tigers were between 16 and 18.....Since this estimate is quite different from that of last year's census and could lead to controversy.....Experts should be called to carry out examination of the evidence.”**

However, the Chief Wildlife Warden ignored this letter and on the 17th August, 2004 sent a letter to the Director, Project Tiger stating for Sariska Tiger Reserve has 16-18 tigers. There is then an 'asterix' on this that says: **“Due to bad weather most of the Pugmark Impression Pads were damaged and it obstructed effective trekking and collection of evidence.”**

Why did Project Tiger in Delhi not reject the census and order a new one?

- (3) It is also understood that a Tiger Assessment Report was submitted by the Wildlife Institute of

India after a 10 day site visit with two senior biologists and eight Ph.D. students. **They also found no evidence of tigers and shockingly found a wild boar stumbling round dragging a tiger trap in its legs. This was March and you can imagine how many steel traps were spread across the heart of this tiger reserve.**

- (4) It is understood that the **CBI report on Sariska talks of:**
- a) **Grossly inflated census figures over 10 years related to the maximum sustainable population – 80% margin of error.**
 - b) **75% of staff are untrained and unsuitable for extensive on foot responsibilities.**
 - c) **More than 3000 hectares of the tiger reserve is encroached.**
 - d) **Complete lack of monitoring and astonishment regarding the fact that NO intelligence was gathered on poachers – glaring failure of intelligence by forest staff.**
 - e) **No effort to effectively patrol or maintain communication with villagers.**

We must examine this example – it must be reflective of several areas in India. If these factors are true for other areas there is little chance of saving tigers. **Also examine why the CBI was able to find all this in 2 days and Project Tiger ‘not at all’.** This will be the only way to understand the root of the problem that afflicts our tiger reserves. We need to send the Sariska case history to all our Project Tiger reserves and other protected areas so that such a debacle is never repeated.

If the CBI can get into Predator-Prey density ratios, statistics and census analysis what stopped Project Tiger doing this in earlier years?

- (5) We also need to study the Kela Devi example where in 600 odd sq. kms of this sanctuary (a part of Ranthambhore Tiger Reserve) **in February 2005 there were written records stating that for moths there were no signs of any tigers. In fact in February this was communicated to the Field Director of Ranthambhore Tiger Reserve.**

Yet when the Additional D.G. (Wildlife) and the Director, Project Tiger went to Ranthambhore Tiger Reserve for a site visit immediately after Sariska (23rd February, 2005) what did they write in their site visit report?
They wrote:

”The alleged disappearance of 18 tigers from Ranthambhore Tiger Reserve is misleading and not true. There is a daily monitoring system in place wherein details of tigers utilizing different parts of the habitat within the reserve are recorded.”

The idea of daily monitoring of tigers without radio collars in an absurdity. While on the 23rd February, 2005 Director, Project Tiger was making these comments on a site visit to Ranthambhore Tiger Reserve the Deputy Director, Project Tiger, Sawai Madhopur (buffer) had on the 3rd February, 2005 (20 days earlier) sent a letter to the Field Director saying that in a large component of Ranthambhore Tiger Reserve – which is Kela Devi Sanctuary – there was no evidence of tigers, pugmarks or faecal matter. On 16th March, 2005 he again sent a letter to Field Director stating that after intensive patrolling he could not find anything and finally the Field Director sent a letter to chief Wildlife Warden on 31st March, 2005 saying that the tigers in Kela Devi were down from 6 to 0. Local extinction.

(b) “The Project Tiger Directorate receives updating periodically from tiger reserves on important events / happenings, as well as mortality of wild animals due to poaching / natural deaths, complemented by factual information gathered during frequent field visits of MOEF officials. Therefore, there is no collapse of any warning system.”

“The alleged decline of tiger counts across the country is only a speculation at this stage by NGOs and media.” Is this why the Deputy Director’s letters of 3rd February and 16th March, 2005 were not acted on? Or is it because there was no knowledge of them? Both are terrible examples of monitoring or early warning mechanisms!

It is obvious that from both the examples of Sariska and Ranthambhore that one part of Project tiger (the field) did not know what the other part of Project Tiger (Delhi) was doing or vice versa. There is obviously no daily monitoring, let alone communication of it to Project Tiger, Delhi. Project Tiger (Delhi) appears to live in the dark about most matters.

Analyse both these examples. They must be symptomatic of reserves across India. We need to find ways to prevent such horrific events.

- (6) We must also look at the role of activist NGO’s both in Sariska and Kela Devi. In Sariska Rajendra

Singh's Tarun Bharat Sangh was deeply involved with wildlife matters. They had in the late 1990's held a *Bagh Bachavo Yata* and have stated that they had sent some warning of the crisis of 2004 to the forest department. In Kela Devi another NGO had played a role in preventing livestock from outer areas to come in and it was a much quoted example of people's participation in wildlife protection. Arun Jindal from the Society for Sustainable Development based in Karauli had for years been supporting a process of participation. So had Rajendra Singh. Let's learn from their failures – since the tiger has gone from both areas.

- (7) Co-opting as a special invitee the head of the investigation in Sariska Shri B.K. Sharma from the CBI and asking him to make a presentation both on Sariska and other areas in terms of poaching and illegal trade.
- (8) Provide a mandate to the CBI to continue investigations into poaching, illegal trade etc. all over India and this will be an immediate deterrent to the accelerating activities of poachers. This will have to be recommended by the Prime Minister.
- (9) Immediate educational awareness campaign in

the media regarding threats of poaching, illegal woodcutting by timber mafias and encroachment on forest land by commercial groups including mining mafias.

- (10) All relevant reports, CBI, WII, Project Tiger assessments and evaluations, earlier reports i.e. Wildlife Crime Bureau, Subramanyam Committee, affidavits of MOEF to the Supreme Court, Supreme Court orders to be provided for the reference of the Committee immediately. The CBI report will be essential reading for every Park Director across India.
- (11) Activate all State Wildlife Advisory Boards to convene meetings since these institutions need to be alerted to the gravity of the problem and thereby take necessary steps to diffuse the problems. These boards are also like early warning systems that can help to detect other problems.
- (12) Immediate implementation of the new Wildlife Crime Prevention and Control Bureau as endorsed by the National Board of Wildlife on the 17th March, 2005 meeting. This is immediately needed to prevent the illegal trade in tiger derivatives and minimise the activities of poachers.

Extracts from

REPORT (UNCORRECTED) OF THE DEPARTMENT –RELATED PARLIAMENTARY STANDING COMMITTEE ON SCIENCE & TECHNOLOGY, ENVIRONMENT & FORESTS

(139th & 146th Reports)

**PRESENTED TO THE RAJYA SABHA ON THE 25TH APRIL, 2005
(LAID ON THE TABLE OF THE LOK SABHA ON THE 25TH APRIL, 2005)**

“The Committee expresses its serious concern over the sudden disappearance of the Tigers from Sariska Tiger Reserve. The Committee feels that the negligence of Forest staff coupled with the large scale poaching has cost the country dear. Conditions in most of the national parks are more or less same, posing a clear danger to protected animal species. Poaching is not a new phenomenon but the poachers are now more advanced with latest weapons and very powerful communication network, making the lackadaisically managed tiger reserves easy picking. In contrast, forest guards are usually equipped with a wooden stick and most of the times without any means of communication. Taking note of this alarming situation, the Committee is of considered opinion that a Special Task Force at the central or state level with the involvement of Para-military

forces must be constituted to combat the menace of poaching of wildlife.

Moreover, the Ministry should also involve the villagers living in and around National Parks / Tiger reserves to prevent the poaching as they are aware of the tentative movement of the poachers but because of poachers' threats or any other compulsion, they refrain from coming out openly to help the forest Department to catch the poachers. The Committee strongly recommends that all vacant positions should be filled immediately and at no time any tiger reserve in the country should be left with the junior officers.”

“The Committee notes the reply of the Ministry and is strongly of the opinion that Ministry's efforts have in no way improved the state of “project tiger” and management of tiger parks in the

country as sadly reflected in the increased incidence of poaching of tigers and disappearance of a section of wild cats from strategic areas in the country. The Ministry needs to undertake complete review of its programmes and plug the loopholes, where necessary to implement them effectively.”

“The Committee feels that the Ministry has not taken much action in pursuance of its recommendation for protecting and developing wildlife parks. The Ministry has informed only about Tigers and their habitats. Nothing has been mentioned about other animals like elephant, lion, rhino, etc. Even achievements of the programmes under “Project Tiger” have come under scrutiny as evident from recent news reports that tigers have disappeared from the Sariska and Ranthambhore Tiger Reserves. The Committee feels that for proper development and protection of the wildlife parks, emphasis should be given on anti-poaching camps, mobile squads, capacity building of frontline staff in intelligence gathering, detection and successful prosecution of cases and providing necessary infrastructure to them.”

“The Committee is of the view that quoting statutory provisions is not the proper action expected from the Ministry. What is more important is proper and holistic implementation / enforcement of these provisions. These provisions / guidelines themselves cannot act as a deterrent. With the support of these

provisions, Ministry should evolve a mechanism to implement its plans / steps emphatically.”

“The Committee observes that despite various schemes of the Ministry, effective patrolling of wildlife is almost missing as is evident from rampant poaching. In the recent past, the Committee during its study visits to some Tiger Reserves / Wildlife Sanctuaries was anguished to see the forest rangers equipped with a wooden stick and roaming on feet whereas poachers, in contrast, are believed to be equipped with latest communication network, modern weapons and vehicles. In view thereof, any financial assistance for the wildlife protection which was made has not been successfully utilised in the past. The Committee reiterates that interested NGOs should be encouraged to provide latest transport and communication facilities to the staff responsible for the protection of wildlife parks. The Committee is also of the opinion that a “Special Task Force” must be constituted to combat the menace of poaching of wildlife.”

“The Committee feels that by merely including endangered species of animals in Schedule I of the Wildlife (Protection) Act, 1972, may not be enough. The Ministry should also take some stringent measures along with enforcing the provisions of the Act for their survival. The Committee would have appreciated if the Ministry had come forward with a comprehensive plan of action for preserving the aforesaid species.”

LONG TERM MEASURES

- (1) Discussions on creating a dedicated Ministry for Forests and Wildlife by bifurcating the present Ministry of Environment and Forests.
- (2) Creating a dedicated and specially trained National Park Service meant to govern and administer 100 of the best protected areas in India. This service must allow inter-state transfers.
- (3) Opening fresh recruitment for all forest staff on a priority basis just like the Police and Army, and fill up all vacancies.
- (4) Extra allocation of finances by Planning Commission for the forest and wildlife sector especially in the area of protection. A meeting will be essential with Deputy Chairman of Planning Commission.
- (5) A meeting between the Prime Minister and all chief Ministers regarding the crisis of the tiger and other wildlife – Members of Parliament to be present – slide presentation to be made. We must realise that saving the tiger and forest is a state subject and therefore Chief Ministers will have to be inspired to act.
- (6) Encouraging the role of scientific research and its recommendations in the management of our wilderness.
- (7) Encouraging the protection of our wilderness areas by local communities / tribals / forest dwellers who can be fully trained in special schools for this purpose and for other requirements of forests and wildlife management i.e. eco-tourism etc. Even if 10 people each are trained in one Park and the programme started in 20 Parks within 6 months we will have 200 people engaged in protection. And this figure can be tripled over the years.
- (8) Creating a Manual or Code of Conduct and Procedure for all protected area managers that becomes their ‘Bible’ to follow in the field and

includes systems for early warning and detection of problems etc.

- (9) **A review of the entire structure of Project Tiger with a view to overhaul it and create a Project Tiger Division in MOEF that is streamlined, efficient and effective especially in a crisis situation. There must be a way to have better communication from the field to Project Tiger (Delhi) so that Kela Devi's and Sariskas' don't happen.**
- (10) Financial allocations and disbursement of money – how to create a rapid flow and prevent non-utilisation of funds etc.
- (11) Corridor connectivity from one tiger area to another is also vital for the prevention of habitat fragmentation and vital existing corridors must be identified for protection.

WHY DO TIGERS DIE AT THE HANDS OF POACHERS OR OTHERS?

- (a) for revenge against livestock kills;
- (b) by accident as poachers try for ungulates;
- (c) by intent and for commerce be it skin or bones;
- (d) or orchestrated by mining mafias or those who want to denotify protected areas and destroy habitats.

The above note spells out that if the climate of Sariska or Ranthambhore prevails then there could be a wipe out of tigers across India. To prevent their death by poachers or others we need early implementation of both short term and long term measures – This is the only way forward.

Valmik Thapar

ANNEXURE-III Response of the chairperson, Tiger Task Force, to note of dissent

■ SUNITA NARAIN

30.07.2005

Valmik Thapar
Member, Tiger Task Force
19 Kautilya Marg
Chanakyapuri 110021

Dear Mr Thapar,

This is with reference to your note of dissent on the report of the Tiger Task Force. It is extremely unfortunate you have decided to take this step, as I do believe we have worked hard to put together a report that will assist conservation of tigers in India.

As I have explained to you, my effort as chairperson has been to listen to and incorporate the views of many concerned people across the country. We have received submissions from and met over 200 different experts, officials and villagers in the past three months. The initial draft report, which you have, includes references to these conversations and research findings, as it is essential that informed knowledge drives the process of conservation in the country.

As I have discussed, I find one key problem with tiger conservation is that the constituency in favour of the tiger has become extremely exclusivist. Therefore, even as threats to the tiger have multiplied, there is limited support for its protection. The response of a few conservationists has been to keep the group small, as they believe that everyone else is against the tiger. The problem is compounded by the fact that some conservationists have direct interests in tiger protection — through businesses in hotels, filming, land or conservation and this has only lead to even greater alienation of all against the tiger, which they believe is being protected for the sake of a few.

I even told you I was extremely concerned at the level of anger I saw among people in Ranthambhore — from villagers to small hotel owners to guards and others. Not only was it their complaint that they had got nothing from the park, but they were bitter that others — prominent conservationists — were misusing their position to circumvent rules for their own interests. This sense of injustice has created a huge constituency against the park and I strongly believe this is bad for conservation.

My effort, then, over the past few months has been geared to making this constituency in favour of tiger protection much more broadbased and inclusive. It is for this reason that the draft report has detailed these positions, for I believe that public support will be crucial to further the cause of tiger conservation.

We have, of course included your note of dissent in the report, but let me take the opportunity to explain many of the issues you have raised. I do believe that we must work to understand each other so that differences, over time, can be resolved.

1. You have quoted from the draft chapter, which looks at the approach to make conservation work. According to you, this “coexistence” that the report talks about is just not possible and it will devastate the tiger.

The fact is that you have selectively quoted from the chapter, when you are clear that the approach that we are advocating in the report is very different — it is much more nuanced

and much more complicated.

The report makes clear that there are separate and equally urgent strategies as far as the tiger protection is concerned:

a. We must make areas inviolate for tigers, as you and your colleagues have suggested. But the report only qualifies this, saying that making areas inviolate for tigers will require more than strong statements. For the first time, we have collected data on the numbers of villages that have been relocated from the reserves and how many remain to be relocated.

The facts are devastating. Only 80 villages have been relocated from tiger reserves till date. There are roughly 1,500 villages that still exist within the reserves. Even the ones that been relocated have often come back because relocation was shoddily done, or have turned deeply antagonist to the tiger. This was clearly evident in Ranthambhore on our visit. This, I know, is a tiger reserve you know well.

Therefore, this task force has, for the first time, put these facts on the table. It has argued that there needs to be urgent, speedy and sensitive relocation of these families. It has also argued that the funds for relocation must be enhanced so that people can be resettled without exacerbating conservation problems.

The Task Force has calculated that Rs 665 crore will be required for this relocation, using even the existing meagre budget norms. Please do note that till date the country has spent Rs 14 crore on most relocation efforts and Rs 173 crore on Central assistance for tiger conservation in the past 30 years.

b. The report has argued that if people continue to live within the protected reserves (after the process of relocation is complete and all cannot be relocated by any chance), then ways have to be found in which we can buy peace with communities. It is here that we have suggested that different methods can be used — from preferential shares in tourism to collaborative management involving communities who will share benefits and so safeguard the tiger. The report states unequivocally that the current tension within the parks is leading to disastrous consequences for the tiger and conservation.

2. You have quoted from the draft chapter on coexistence on the problems you have concerning the analysis on the directions issued by the Central Empowered Committee (CEC).

I do realise that you are a member of CEC, and therefore, our analysis of the legal provisions as against the interpretation of CEC is not easy for you to accept. I had, as promised, read all the material on the CEC position and have incorporated it in the chapter. But I still find that the facts bring out a different position.

The issue is if the 2003 amendment of the Wildlife (Protection) Act, 1972 which gives powers to disallow the collection of minor forest produce, grass and other subsistence needs of communities can be enforced without taking recourse to the safeguards also provided in the same amendment, that make it incumbent on governments to provide alternative fuel, fodder and other forest produce in these cases.

The report argues:

a. That the Ministry of Environment and Forests and CEC should have also ensured that the alternatives were provided, if the rights were expunged.

b. That not doing so has meant that the anger of local communities against the protected areas of India has intensified.

3. The decision was to ask the prime minister to chair the steering committee not to leave it as an either/or option on revitalising the National Board for Wildlife.

The idea to request the Prime Minister to chair the steering committee came from Mr

Samar Singh. We all agreed to it. However, it is clear that it is the prerogative of the Prime Minister to decide and we cannot direct him to do so. It is for this reason that Mr Samar Singh and I decided to reformulate this recommendation. But the intention is clear and I cannot see any reason for your disagreement on this matter.

4. Wildlife Crime Bureau should be headed by senior officer in super time scale. But according to you, the person should not report to the additional director general of forests.

Again, your raising this completely baffles me. The fact is that the person has to report within the given hierarchy. It was agreed that the crime bureau would be within the MOEF and, therefore, the officer reports to the senior-most official in wildlife issues. Clearly, we could not formulate this in a way that the officer would continue to report to someone in CBI or home ministry, unless the bureau was located there. We did not take any such common decision.

5. On the extending of the term of the state empowered committee of Rajasthan.

The point in the report is that the government of Rajasthan has not taken adequate action as far as the episode in Sariska is concerned. It is in this context that the report mentions that the extension of the term of the state committee (I know you are a member) has only led to further delays as crucial decisions are pending. I cannot see how this is factually incorrect or misleading.

6. On dropping the box by Raghu Chundawat on the harassment of scientists.

The box is very much included. It is not in the science chapter but in the research chapter.

7. On glossing over the role of MoEF and Project Tiger directorate in the Sariska and other debacles.

Again, everyone who knows me even a little should know that I do not ‘gloss’ over the role of government. What I have simply done is to look at the facts and the circumstances to conclude that the key failure came from the state government’s mismanagement (and continued) mismanagement of the park in Sariska.

What we did discuss is why the systemic failure took place so that the Project Tiger directorate was unable to intervene and did not even have the information from the state. It is this that led us to recommend the need to convert Project Tiger into an authority and to vest the officer in charge (whoever it may be) with legal powers to facilitate working with states.

You repeatedly allege the report has a ‘people focus’ and not a ‘tiger focus’. I do not know how to respond to this, because then you clearly do not even begin to understand the challenge of tiger conservation in the country today, as we see it and have detailed in the report. Indeed, it is unfortunate you were consistently busy during the entire term of the Task Force, because of which your interaction with all of us was limited. If we had seen more of you, I am sure a better common understanding would have emerged.

I will publish this response in the report, along with your note of dissent. I have always believed dialogue is more powerful than dissent.

With regards

Yours cordially

Sunita Narain

ANNEXURE - IV Expert consultations based on terms of reference of the Tiger Task Force

The Tiger Task Force had invited a wide range of experts from different fields for consultation to learn from their experiences and insights, and to develop strategies for the future based on these learnings. They were also asked to provide any papers that they have written and, if possible, give written submissions on the different aspects that the Task Force has been asked to examine. All reports of the consultations will be available on the website: www.projecttiger.nic.in

The Task Force had held these consultations at New Delhi, Nagpur and Bangalore.

New Delhi consultation, May 18, 2005: on conservation of the tiger, problems of poaching and enforcement

1. B K Sharma, deputy director (admn), Central Bureau of Investigation (CBI), Block No 3, 4th Floor, CGO Complex, Lodhi Road, New Delhi 110 003
2. Belinda Wright, executive director, Wildlife Protection Society of India, M-52, Greater Kailash Part I, New Delhi 110 048
3. Ashok Kumar, senior advisor and trustee, Wildlife Trust of India, C644, First Floor, New Friends colony, New Delhi 110065
4. Amlan Dutta, assistant programme officer, Wildlife Trust of India, C-644, First Floor, New Friends Colony, New Delhi 110065
5. Manoj Mishra, Peace Institute, 178-F, Pocket-IV, Mayur Vihar, Phase I, New Delhi 110 091
6. P K Sen, director, Tiger and Wildlife Programme, WWF 172B, Lodi Estate, New Delhi 110003
7. Madhu Sarin, environment journalist, 48, Sector 4, Chandigarh 160 001
8. A K Mukerjee, former director general of forests, I-1625, Chittaranjan Park, New Delhi 110 019
9. B S Bonal, director, National Zoological Park, Mathura Road, New Delhi
10. Harsh Vardhan, honorary general secretary, Tourism and Wildlife Society of India, C-158A, Dayanand Marg, Tilak Nagar, Jaipur 302 004, Rajasthan

New Delhi consultation, May 19, 2005: methodology of tiger counting, forecasting, professional audits of wildlife, research guidelines and access to information

1. Ullas Karanth, director, Wildlife Conservation Society-India Program, 823, 13th Cross, 7th Block West, Jayanagar, Bangalore 560 082, Karnataka
2. Raghu S Chundawat, Wildlife Institute of India, Post Bag No 18, Chandrabani, Dehradun 248 001, Uttaranchal
3. Y V Jhala, head, Department of Animal Ecology and Conservation Biology, Wildlife Institute of India, Post Bag No 18, Chandrabani, Dehradun 248 001, Uttaranchal
4. Qamar Qureshi, faculty, Wildlife Institute of India, Post Bag No 18, Chandrabani, Dehradun 248 001, Uttaranchal
5. Ravi Chellam, programme officer, United Nations Development Programme, 55, Lodi Estate, P O Box 3059, New Delhi 110 003
6. Vasant Saberwal, programme officer, Department of Environment and Development, Ford Foundation, 55 Lodi Estate, New Delhi 110 003
7. Asad R Rahmani, director, Bombay Natural History Society, Hornbill House Dr Salim Ali Chowk, Shaheed Bhagat Singh Road, Mumbai 400 023, Maharashtra
8. A J T Johnsingh, head, Wildlife Institute of India, Post Bag No 18, Chandrabani, Dehradun 248 001, Uttaranchal

9. Surendra Prakash Goyal, scientist, Wildlife Institute of India, Post Bag No 18, Chandrabani, Dehradun 248 001, Uttaranchal

The Task Force also met John Sellers, senior enforcement officer, CITES, and Debbie Bank, senior campaigner, Environmental Investigation Agency, 62/63 Upper street, London N10NY

Nagpur consultation, June 12, 2005: on issues connected to local communities and tiger conservation

1. Ashish Kothari, coordinator, Kalpavriksh - Environment Action Group, Apt. 5 Shree Datta Krupa, 908 Deccan Gymkhana, Pune 411 004, Maharashtra
2. Bittu Sehgal, editor, *Sanctuary* magazine, 146, Pragati Industrial Estate, N M Joshi Marg, Mumbai, Maharashtra
3. Mohan Hirabai Hiralal, Vrikshamitra, Shende Plot, Ramnagar, Chandrapur 442 401, Maharashtra
4. Shailendra J Chaudhuri, 38 Manish Nagar, Nagpur, Maharashtra
5. Motiram, Hosangabad, Madhya Pradesh
6. Ashish Goswami, People for Animals, Gopuri, Wardha 442 001, Maharashtra
7. Manojit Saha, *Deccan Herald*, 303, Tulsiamich, Nariman Point, Mumbai, Maharashtra
8. Bhurelal Gandhi, coordinator, Tawa Matsya Sangh, Kesla, Hosangabad, Madhya Pradesh
9. Sunil, village and PO Kesala, Hosangabad, Madhya Pradesh
10. Milind Pariwakam, Centre for Wildlife Studies, Bangalore, Karnataka
11. Devaji Navalu Topha, Adivasi Mitra, gram sabha, village Lekha Mendha, Post Heti, Tehsil Dhanora, Gadchiroli 442 606, Maharashtra
12. Sulabha Chakravarty, coordinator, Green Hope, 46, Om Sai Building, Anant Nagar, Nagpur 440013, Maharashtra
13. Anuradha Paul, executive editor, Green Hope; executive secretary, VED Council, 50, Anand Palace, Dhantoli, Nagpur 440012, Maharashtra
14. Prafulla Bhamburkar, WWF-India, 6, Venkatesh Nagar, Khamla Road, Nagpur 25, Maharashtra
15. Uday Patel, honorary wildlife warden, D-71/1, Urjanagar, Chandigarh
16. Satish Gogulwar, convenor, Maharashtra State Participatory Forest Management Network, Kurkheda, Gadchiroli 441 209, Maharashtra
17. Rahul Bais, Amhi Amachya Arogyasathi, c/o Ramesh Alome's house, Plot No 21, near Sanjuba School, Surve Layout, Nagpur 440014, Maharashtra
18. Shanker Patil, president, Adivasi Gram Vikas, Paryatak Margdarshak Aur Vanyajeev Sanrakshan Samiti, PO Moharli, Taluka Bhadrawati, Chandrapur, Maharashtra
19. Vinod Jambhule, Tiger Research and Conservation Trust, CTPS Urjanagar, E-233/6 Chandrapur, Maharashtra
20. Pandurang Shrirame, PO Moharli, Taluka Bhadrawati, Chandrapur, Maharashtra
21. Shilpa P Hande, Plot No. 4, Nagbhoomi Society, Chhatrapati Nagar, Nagpur, Maharashtra
22. Mohan, Rashtriya Van Shramjeevi Manch, 501, Lakshmi Apartments, Ravi Nagar Chowk, Nagpur 440 033, Maharashtra
23. Ravishankar Bhure, Rashtriya Van Shramjeevi Manch, 9, Postal Audit Colony, Ramapratap Nagar, Nagpur 440022, Maharashtra
24. Archana Singh, *Lokmath Samachar*, Pandit Jawaharlal Marg, Nagpur 440010, Maharashtra
25. Debi Goenka, Bombay Environmental Action Group, Kalbadevi Municipal School, # 54, 2nd Floor, Mumbai 400 002, Maharashtra
26. Poonam Dhanwatey, Tiger Research and Conservation Trust, Plot No 59-60, Shivneri, Ramdaspath, Nagpur 440 010, Maharashtra
27. Harshawardhan Dhanwatey, Tiger Research and Conservation Trust, Plot No 59-60, Shivneri, Ramdaspath, Nagpur 440 010, Maharashtra
28. Vijay Ghugey, Nature Science Club, 138, Kalpataru, Mahalaxminagar No 2, Manewada Road,

- Nagpur 440 024, Maharashtra
29. Rucha Ghate, SHODH: The Institute for Research and Development, 50, Puranik Layout, Bharat Nagar, Nagpur 440033, Maharashtra
 30. Gokuldas Shankar, Gedam, At. Botezari, Post Moharli, Taluka Bhadrawati, Chandrapur, Maharashtra
 31. Mahadev B. Kumre, At Botezari, PO Moharli, Taluk Bhadrawati, Chandrapur, Maharashtra
 32. Kanhu Shinde, At Botezari, PO Moharli, Taluk Bhadrawati, Chandrapur, Maharashtra
 33. Devrao V. Kannake, At Botezari, PO Moharli, Taluk Bhadrawati, Chandrapur, Maharashtra
 34. Vilas Shanker Kannake, At Botezari, PO Moharli, Taluk Bhadrawati, Chandrapur, Maharashtra
 35. Murali Manohar Rahi, Main Road Gondiya, Gondiya, Maharashtra
 36. Kundan Hate, vice president, Satpura Foundation, 86, Shivneri Appartments, Kanfadenagar, Ring Road, Nagpur 440015, Maharashtra
 37. Raj Kumar Khodecha, National Environment and Wildlife Society, Gondia, Maharashtra
 38. P V Joseph, National Environment and Wildlife Society, Gondia, Maharashtra
 39. Sunita Shukla, SRISHTI, 103, Mount Road, behind Hotel Upvan, Sadar, Nagpur 440 001, Maharashtra
 40. Raju Kasambe, 64, Vidya Vihar Colony, Pratap Nagar, Nagpur 440 022, Maharashtra
 41. Prakash Amte, Lokbiradari Prkalp, Hemalkasa, PO Bhamragad, Gadchiroli 442 710, Maharashtra
 42. Gopalrao Thosar, Vasundhara, 66, Ganesh Colony, Pratap Nagar, Nagpur 440 022, Maharashtra
 43. Kishore Rithe, Nisarg Sanrakshan Sanstha, Pratishtha, Bharat Nagar, Akoli Road, Near Sainagar Jawal, Amravati 444 607, Maharashtra
 44. Dilip Gode, secretary, Vidarbha Nature Conservation Society, Tidke Ashram, Ganeshpeth, Nagpur 440 018, Maharashtra
 45. Shripad Suklikar, president, Vidarbha Nature Conservation Society, Tidke Ashram, Ganeshpeth, Nagpur, Maharashtra
 46. Kusum Karnik, environmentalist, Bhimashankar Prkalp, At and PO Manchar, Manchar 410 503, Maharashtra
 47. V Chandra, Rashtriya Van Shramjeevi Manch, 5/87 Bharatnagar, Nagpur, Maharashtra
 48. Kaustubh Pandharipande, Samvedana, Professor's Colony, Karanja (Lad), Washim 444 105, Maharashtra
 49. Ramu Bhagwat, *The Times of India*
 50. Mahesh Upadev, *Saamana*, Mumbai, Maharashtra
 51. Rohini Kant Matey, *The Hitavada*, Wardha Road, PO Box No 201, Nagpur, Maharashtra

Bangalore consultation, June 21, 2005: on the measures to improve the methodology of tiger counting and forecasting; suggest methods of transparent professional audit of wildlife parks; and placing data on tiger conservation in the public domain

1. Anil Gore, professor of statistics, department of statistics, Pune University, Ganshkhind, Pune 411 007, Maharashtra
2. P S Roy, deputy director, National Remote Sensing Agency, Balanagar, Hyderabad 500 037, Andhra Pradesh
3. Pushpa M Bhargava, ANVESHNA, Furqan Cottage, 12-13-100, Lane # 1, Street # 3, Tarnaka Hyderabad 500 017, Andhra Pradesh
4. Kartik Shankar, fellow, Ashoka Trust for Research in Ecology and the Environment (ATREE), No 659, 5th A Main Road, Hebbal, Bangalore 560 024, Karnataka
5. Sumati V, student, wcs, Bangalore, Karnataka
6. Shomita Mukherjee, Centre for Wildlife Studies, Bangalore, Karnataka
7. Anindya Sinha, National Institute of Advanced Study, Indian Institute of Science campus, Bangalore, Karnataka
8. M D Madhusudan, wildlife ecologist and trustee, Nature Conservation Foundation, 3076/5 IV Cross, Gokulam Park, Mysore, Karnataka

9. Soumya Prasad, Indian Institute of Science, Bangalore 560 012, Karnataka
10. Aparajita Datta, senior scientist, Nature Conservation Foundation, 3076/5, IV Cross, Gokulam Park, Mysore 570 002, Karnataka
11. D V Girish, Nature Conservation Guild, Chickmagalur, Karnataka
12. Praveen Bhargav, managing trustee, Wildlife First, No.1235, 1st Floor, 26th A Main, 32nd G Cross, 4th T Block, Jayanagar, Bangalore 560 041, Karnataka
13. K M Chinappa, Centre for Ecological Research and Conservation, 076/5 IV Cross Gokulam Park, Mysore 570 002, Karnataka
14. Krishna Narain, Wildlife Watch, Bangalore, Karnataka
15. G Vishwanath Reddy, conservator of forests, 27/A Vanashree, Gokulam Main Road, V Mohalla, Mysore 570 002, Karnataka
16. K N Murthy, Watershed Development Department, Vana Vikas Building, Malleswar, Bangalore, Karnataka
17. R Sukumar, chairperson, Centre for Ecological Sciences, Indian Institute of Science, Bangalore 560 012, Karnataka
18. N Samba Kumar, Centre for Wildlife Studies, Bangalore, Karnataka
19. Harshwardhan Dhanwatey, Tiger Research and Conservation Trust, Nagpur, Maharashtra
20. M C Vinay Kumar, 18Y 52nd B Cross, 3rd Block, Rajajinagar, Bangalore, Karnataka
21. S Dhananjaya, Karnataka Forest Department
22. B Venkatesh, Karnataka Forest Department, Bandipur
23. K A Subramaniam, National Centre for Biological Sciences, UAS-GKVK Campus Bellary Road, Bangalore 560 065, Karnataka
24. Mahesh Rangarajan, independent researcher, 24 Samachar Apartments, Mayur Vihar Phase-I Extension, Delhi 110 091
25. Jagadish Krishnaswamy, Ashoka Trust for Research in Ecology and the Environment, No 659, 5th A Main Road, Hebbal, Bangalore 560 024, Karnataka
26. Milind Watve, Department of Microbiology, Babahasaheb Garware College, Karve Road, Pune, Maharashtra
27. M K Surappa, honorary secretary, Karnataka State Council for Science and Technology, Bangalore 7, Karnataka
28. Shivanna, secretary, Karnataka Biodiversity Board, Ground Floor, Vanavikas, 18th Cross Malleshwaram, Bangalore 3, Karnataka
29. C Srinivasan, field director, Bandipur
30. P Anur Reddy, conservator forests (wildlife), Karnataka
31. A K Verma, chief wildlife warden, Karnataka
32. Jagmohan Sharma, Karnataka Forest Department
33. D Yatish Kumar, Karnataka Forest Department
34. Col C P Muthanna (retd), Coorg Wildlife Society

ANNEXURE - V The visits by Tiger Task Force

The Task Force members have undertaken field visits to a few tiger reserves in the country to understand the management and the present status of these reserves. The members also visited the Wildlife Institute of India to discuss with the officials the methodology of tiger estimation and habitat monitoring. The visits were as follows:

1. Periyar Tiger Reserve, Thekkaddy and Sabarimala, Kerala
2. Pench Tiger Reserve, Maharashtra
3. Pench Tiger Reserve, Madhya Pradesh
4. Kanha Tiger Reserve, Madhya Pradesh
5. Sariska Tiger Reserve, Rajasthan
6. Ranthambhore Tiger Reserve, Rajasthan

ANNEXURE - VI Experts requested to comment on methodology of tiger estimation

The proposal from the Project Tiger directorate and the Wildlife Institute of India to review and change the methodology for assessing tiger habitat and to estimate the numbers was sent to many experts for their comments. The names of the experts are given below:

1. Aparajita Datta, senior scientist, Nature Conservation Foundation, 3076/5, IV Cross, Gokulam Park, Mysore 570 002, Karnataka
2. S P Goyal, scientist, Wildlife Institute of India, Post Bag No 18, Chandrabani, Dehradun 248 001, Uttaranchal **(comments received)**
3. Anil P Gore, professor of statistics, department of statistics, Pune University, Ganeshkhind, Pune 411 007, Maharashtra **(comments received)**
4. A J T Johnsingh, dean, faculty of wildlife sciences, Wildlife Institute of India, Post Bag No 18, Chandrabani, Dehradun 248 001 **(comments received)**
5. Jagdish Krishnaswamy, fellow, Ashoka Trust for Research in Ecology and the Environment , No 659, 5th A Main Road, Hebbal, Bangalore 560 024, Karnataka
6. Sharad Lele, coordinator and senior fellow, Centre for Interdisciplinary Studies in Environment and Development, ISEC Campus, Nagarabhavi, Bangalore 560 072, Karnataka
7. Kartik Shankar, fellow, and Mohammed Irfan Ullah, fellow, Ashoka Trust for Research in Ecology and the Environment, No 659, 5th A Main Road, Hebbal, Bangalore 560 024, Karnataka **(comments received)**
8. Ullas Karanth, director, Wildlife Conservation Society-India Program, 823, 13th Cross, 7th Block West, Jayanagar, Bangalore 560 082, Karnataka **(comments received)**
9. P S Roy, deputy director, National Remote Sensing Agency, Hyderabad.500 037, Andhra Pradesh **(comments received)**
10. M D Madhusudan, wildlife ecologist and trustee, Nature Conservation Foundation, 3076/5 IV Cross, Gokulam Park, Mysore, Karnataka
11. T R Shankar Raman, wildlife scientist, Nature Conservation Foundation, 3076/5 IV Cross, Gokulam Park, Mysore 570 002, Karnataka
12. R Sukumar, chairperson, Centre for Ecological Sciences, Indian Institute of Science, Bangalore 560 012, Karnataka
13. R S Chundawat, Wildlife Institute of India, Post Bag No 18, Chandrabani, Dehradun 248 001 **(comments received)**
14. B L Deekshatulu, ISRO visiting professor, University of Hyderabad, 10-3-123/3/1, East Maredpally, Secunderabad-500 026
15. Ravi Chellam, programme officer, United Nations Development Programme, 55, Lodi Estate, PO Box 3059, New Delhi 11000
16. Asad R Rahmani, director, Bombay Natural History Society, Hornbill House, Dr Salim Ali Chowk, Shaheed Bhagat Singh Road, Mumbai 400 023, Maharashtra

ANNEXURE - VII Suggestions received on the terms of reference of Tiger Task Force

The Task Force had written to a number of experts and activists requesting them to send their ideas and suggestions, based on the terms of reference. Many people had also written voluntarily to the Task Force giving their suggestions and ideas. The Task Force is grateful to them for sending their ideas and recommendations, contributing to our understanding of issues.

1. Praveen Bhargav, managing trustee, Wildlife First, No 1235, 1st Floor, 26th A Main, 32nd G Cross, 4th T Block, Jayanagar, Bangalore 560 041, Karnataka
2. S S Bist, director (PE) and IGF, ministry of environment and forests, Room No 126, Paryavaran Bhawan, CGO Complex, Lodhi Road, New Delhi 110 003
3. Aparajita Datta, senior scientist, Nature Conservation Foundation, 3076/5, IV Cross, Gokulam Park, Mysore 570 002, Karnataka
4. Rucha Ghatge, SHODH: The Institute for Research and Development, 50, Puranik Layout, Bharat Nagar, Nagpur 440 033, Maharashtra
5. Anil P Gore, professor of statistics, department of statistics, Pune University, Ganeshkhind, Pune 411 007, Maharashtra
6. Radhika Johri, department of anthropology, York University, 2054 Vari Hall, 4700 Keele Street, Toronto, Ontario, Canada M3J 1P3
7. Krithi K Karanth, doctoral student, Terborgh Lab Levine Science Research Center, PO Box 90328, Nicholas School of Environment, Duke University, Durham NC 27708
8. Jagdish Krishnaswamy, Ashoka Trust for Research in Ecology and the Environment, No 659, 5th A Main Road, Hebbal, Bangalore 560 024, Karnataka
9. Kusum Karnik/Anand Kapoor, environmentalists, Science of Conservation, Bhimashankar Prakalp, At and PO Manchar, Manchar 410 503, Maharashtra
10. Sharad Lele, coordinator and senior fellow, Centre for Interdisciplinary Studies in Environment and Development, ISEC Campus, Nagarabhavi, Bangalore 560 072, Karnataka
11. Kamal Naidu, chief conservator of forests, government of Andhra Pradesh, CCF Office, Hyderabad, Andhra Pradesh
12. V B Sawarkar, director, Wildlife Institute of India, Post Bag No 18, Chandrabani, Dehradun 248 001, Uttaranchal
13. V D Sharma, former PCCF & CWLW, Rajasthan
14. Tykee Malhotra, managing trustee, Sanskara Development Trust, F-328, Lado Sarai, Mehrauli, New Delhi 110 030
15. V B Mathur, professor and head, department of protected area network, Wildlife Management and Conservation Education, Wildlife Institute of India, Post Bag No 18, Chandrabani, Dehradun 248 001, Uttaranchal
16. Ashish Kothari/Pankaj Sekhsaria, Kalpavriksh – Environment Action Group, Apt 5, Shree Datta Krupa, 908, Decan Gymkhana, Pune 411 004, Maharashtra
17. Fateh Singh Rathore, vice chairperson, Tiger Watch, Ranthambhore, Rajasthan
18. Madhu Sarin, environment journalist, 48, Sector 4, Chandigarh 160 001, Punjab
19. Krishna Narain, Wildlife Watch, wildlife_watch@vsnl.com
20. Qamar Qureshi, faculty, Wildlife Institute of India, Post Bag No 18, Chandrabani, Dehradun 248 001, Uttaranchal
21. Sanjeeva Pandey, director, Great Himalayan National Park, Shamshi, Kullu 175 126, Himachal Pradesh
22. Vinod Kumar Damodar, honorary animal welfare officer, Animal Welfare Board of India, 'Breeze', 5/2750-A, Behind Officers Club, Thiruthiyad, Calicut 673 004, Kerala

23. M C Vinay Kumar, 18Y, 52nd B Cross, 3rd Block, Rajajinagar, Bangalore, Karnataka
24. Charudutt Mishra, executive trustee, Nature Conservation Foundation, 3076/5 IV Cross Gokulam Park, Mysore 570 002, Karnataka
25. S C Dey, former director of wildlife conservation and secretary general, Global Tiger Forum, A-269, 2nd Floor, Defence colony, New Delhi 110024
26. Debbie Banks, senior campaigner, Environmental Investigation Agency, 62-63 Upper Street, London, N10NY
27. S K Ramalinge Gowde, president, IFS Association, Room No 538, Block B, Paryavaran Bhawan, CGO Complex, Lodi Road, New Delhi 110 003
28. B S Thengdi, DyCF, Land Records, Nagpur, Maharashtra
29. A K Mukerji, former director general of forests, I-1625, Chittaranjan Park, New Delhi 110019
30. Vaishaish Uppal/Raman Mehta/Shekhar Singh, D-4, Gulmohar Park, New Delhi
31. P S Roy, deputy director, National Remote Sensing Agency, Balanagar, Hyderabad 500 037, Andhra Pradesh
32. Lalji Singh, director, Centre for Cellular and Molecular Biology, Uppal Road, Hyderabad 500 007, Andhra Pradesh
33. Harini Nagendra, Asia research coordinator, Center for the Study of Institutions, Population and Environmental Change, Indiana University, and Fellow, Ashoka Trust for Research in Ecology and the Environment, Bangalore, Karnataka
34. Arun Agnihotri, *bichhubooti@yahoo.com*
35. Shomita Mukherjee, Centre for Wildlife Studies, Bangalore
36. S Chandola, addl PCCF and CWLW, Uttaranchal
37. K Yoganand, PhD scholar, Wildlife Institute of India, Dehradun 248 001
38. Mohammed Irfan Ullah, fellow (scientist), Ashoka Trust for Research in Ecology and the Environment, 659, 5th A Main Road, Hebbal, Bangalore 560 024, Karnataka
39. Mahesh Rangarajan, independent researcher, 24 Samachar Apartments, Mayur Vihar Phase-I Extension, Delhi 110 009
40. Harsh Vardhan, honorary general secretary, Tourism and Wildlife Society of India, C-158A, Dayanand Marg, Tilak Nagar, Jaipur 302 004, Rajasthan
41. Bransdon S Corrie, chief conservator of forests (WL), Thiruvananthapuram
42. Anjana Gosain, honorary secretary, Tiger Trust, 206, Rakeshdeep, 11 Commercial Complex, Gulmohar Enclave, New Delhi 110 049
43. Archana Singh, *Lokmath Samachar*, Pandit Jawaharlal Marg, Nagpur 440010, Maharashtra
44. Arpan Sharma/Asmita, Samrakshan Trust, E-314, Anandlok, Mayur Vihar Phase – I, New Delhi-91.
45. Anil Garg, near PO Khadi Bhandar, Kothi Bazar, Betul 460 001, Madhya Pradesh
46. Vivek R Sinha, 764, 100 Feet Road, HAL IInd Stage, Indiranagar, Bangalore 560 038.
47. Anita S Areckal, deputy conservator of forests, Mangalore Forest Division, Mangalore, Karnataka
48. Ashok Kumar, senior advisor and trustee, Wildlife Trust of India, C-644, First Floor, New Friends Colony, New Delhi 110 065
49. Raghunandan Singh Chundawat, Wildlife Institute of India, Post Bag No 18, Chandrabani, Dehradun 248001, Uttaranchal
50. Vijay Soni, angler, environmentalist, Indian Fish and Wildlife Conservancy, 43, Golf Links, New Delhi 110 003
51. Dr S Shivaji, scientist (deputy director), Centre for Cellular and Molecular Biology (CCMB), Uppal Road, Hyderabad 500 007.
52. Dr M Janikaraman, 6060 Village Bend Street, Apt # 310, Dallas TX 75206, USA
53. Avdhash Kaushal, RLEK, 68/1, Suryalok colony, Rajpur Road, Dehradun, Uttaranchal.
54. Meenal Shrivastava, professor, international relations, Wits University 2050, Johannesburg, Wits, South Africa
55. S K Tiwari, wildlife photographer, naturalist, *kaysat@sancharnet.in*
56. Ramma Handoo, B-12, Maharani Bagh, New Delhi 110 065
57. S M Jain, consultant, forestry, 7-B, Talwandi, Pvt Sector, Commerce College Road, Kota 324 005, Rajasthan

58. Rakesh Shukla, research officer, Kanha tiger reserve, New Kanha Colony, near Mandla Forest Range, Civil Lines, Mandla 681 661, Madhya Pradesh
59. A N Prasad, field director, Palamau tiger reserve, government of Jharkhand, Daltonganj 822 101, Jharkhand
60. S M Satheesan, B-16/5, AAI Colony, Sahar Road, Andheri East, Mumbai 400 099, Maharashtra
61. Bittu Sehgal, editor, *Sanctuary Magazine*, 602 Maker Chamber V, Nariman Point, Mumbai 400 021, Maharashtra
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ANNEXURE-VIII Methodology for estimating and monitoring tiger status and habitat

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The only form of tiger population monitoring undertaken in the country is a total count (census) of the country-wide tiger population every four years and within tiger reserves every one-two years. The census is based on intensive monitoring of tigers within areas, identifying individual tigers by visual inspection of the pugmark tracings/plaster casts, mapping tiger distribution at the local scale and inferring total numbers from the above information (Choudhury 1970, Panwar 1979, Sawarkar 1987 and Singh 1999). This methodology has come under severe criticism (Karanth et al, 2003). The major limitations of the above technique are that

1. it relies on subjective (expert knowledge) identification of tigers based on their pugmarks;
2. the pugmarks of a tiger are likely to vary with substrate, tracings/casts and the tiger's gait;
3. it is not possible to obtain pugmarks of tigers from all tiger occupied landscapes, and
4. the method attempts a total count of all tigers (Karanth et al, 2003).

An alternative proposed by tiger biologists is to use individually identified tigers by camera traps in a capture-recapture statistical framework to estimate tiger densities (Karanth 1995 and 1998, Karanth and Nichols 1998, 2000 and 2002, Karanth et al 2004, Per Wegge et al 2004 and Pollock et al 1990). The method has been useful in determining tiger densities in small areas, within tiger reserves having high to medium density tiger populations. The method has a high potential for monitoring source population and smaller sample areas within tiger occupied landscapes. However, due to the technical nature of the technique, high cost, security issues of the equipment and low performance in low density tiger populations this method has its limitations for a country-wide application for monitoring tigers (Carbone et al 2001, Karanth 1995 and 1998, Karanth and Nichols 1998, 2000 and 2002, Karanth et al 2004 and Kawanishi and Sunquist 2004).

The other two potential methods that can be used in smaller sample areas for monitoring source tiger populations are the individual identification of tigers from digital images of their pugmarks (Sharma et al,

in press) and tiger DNA profiles obtained from scats and other non-invasive techniques (Broquet and Petit 2004, Prugh et al 2005 and Xu et al 2005).

Here, we propose an alternative technique based on a four-stage approach:

Stage I: Spatial mapping and monitoring of tigers, prey and habitat

This stage consists of mapping

- (a) tiger presence and relative abundance (Karanth and Nichols 2002);
- (b) tiger prey presence and relative abundance and
- (c) habitat quality and anthropogenic pressures at a high spatial resolution of 15-20 km².

We consider a forest beat (an administrative unit, 15-20 sq km in size, delineated primarily on natural boundaries) as the unit for sampling. Since each beat is allocated to a beat guard for patrolling and protection, the boundaries of a beat are well recognised by forest staff. The sampling would be systematically distributed in all beats of tiger occupied forests (tiger reserves, revenue and reserve forests). Thus, in effect, the entire landscape where tigers are likely to occur is sampled (beats are not stratified or randomly sampled, but all beats are sampled as large humanpower is available for sampling). In forest areas, where beat boundaries are not delineated (< 20 per cent of tiger occupied forests in the country) – such as the northeast — 15-20 sq km sampling units will be identified on the basis of natural boundaries (ridges, drainage, etc). The detailed methodological approach for sampling carnivore signs, ungulate encounter rates, pellet/dung counts, habitat and anthropogenic pressures are presented in the 'Field Guide' (Jhala and Qureshi 2004).

The target data are extremely easy to collect and require no high level of technical skills or equipment. It is crucial that the forest department staff is primarily responsible for the data collection due to the sheer magnitude of the task involved. Furthermore, the involvement of the forest department staff instills ownership and accountability of this agency which is primarily responsible for the protection and management of wildlife resources. The forest

department staff will be trained in the data collection protocol and tested for consistency.

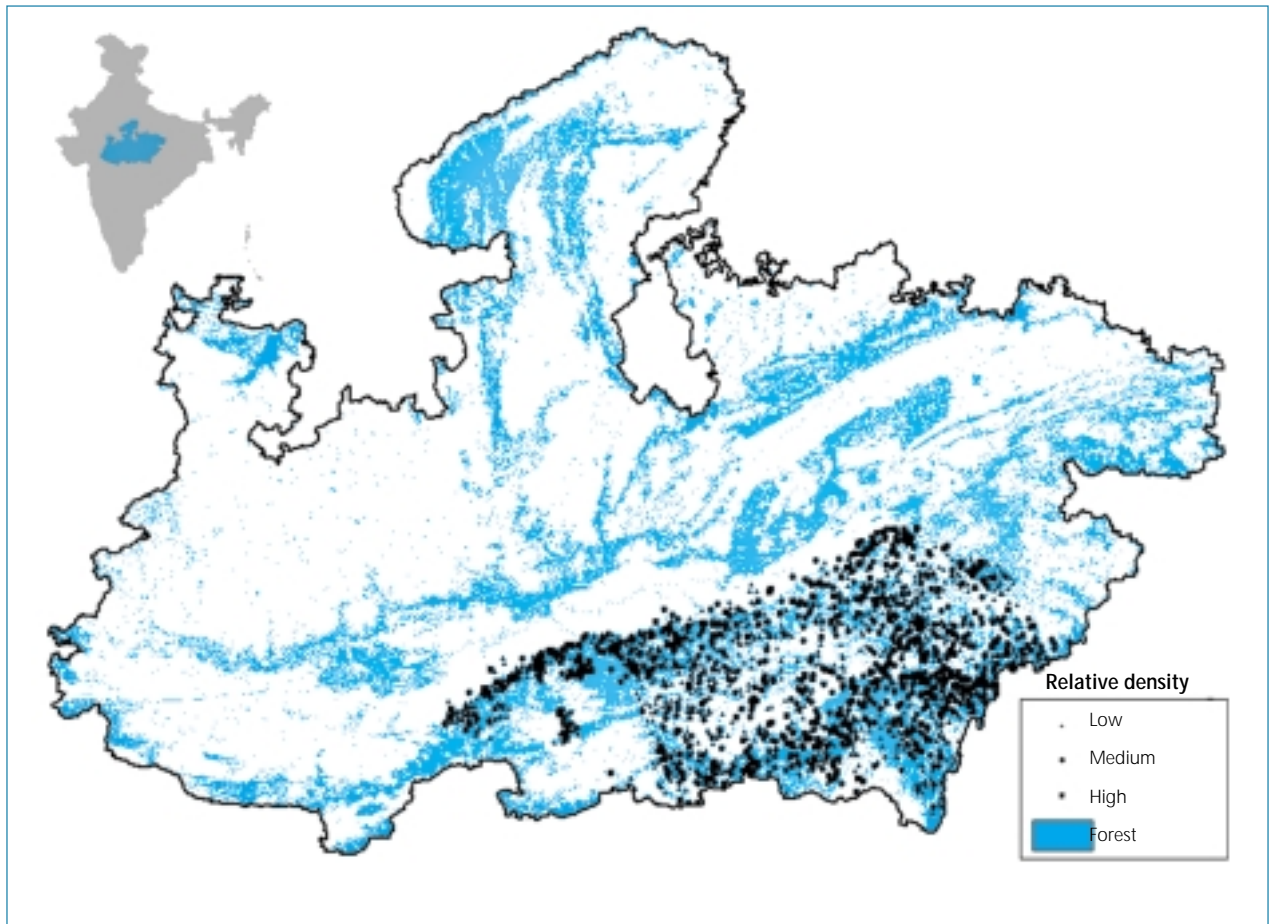
The spatial data generated will be scientifically robust, and amenable for statistical analysis and inference. Since several replicate surveys will be undertaken in each beat, we shall be able to model tiger occupancy, detection probability of tiger signs, and relative sign density at a high spatial resolution (stratified on the basis of ecological characteristics, range or a superimposed grid of varying scale) using the approach of MacKenzie *et al* (2002), Royale and Nicholes (2003) and Royle (2004). Since the data will be analysed in a GIS domain, several spatial and attribute data like human density, livestock density, road network, topographical features, forest type and cover, meteorological data, poaching pressures and landscape characteristics will be used as covariates to model tiger occupancy and relative abundance in a landscape and individual forest patches. Time-series analysis of the data at a larger spatial resolution is likely to have sufficient precision for monitoring spatial occupancy of tigers in association with changes in tiger prey, habitat quality and anthropogenic pressures.

We have tried to address the issue of reporting inflated numbers by laying emphasis on animal signs instead of numbers. Furthermore, the resolution of the data generated will be reduced to four-five categories (high, medium, low and absent). Several corroborating variables like prey encounter rates, pellet group counts and habitat condition will help in ensuring quality data; discrepancies in reporting will be easy to pinpoint. There would be an audit mechanism in place to scrutinise the data collection, compilation and analysis. National and international experts would act as observers while officers in-charge will ensure adherence to the prescribed protocol and transparency of protocol implementation.

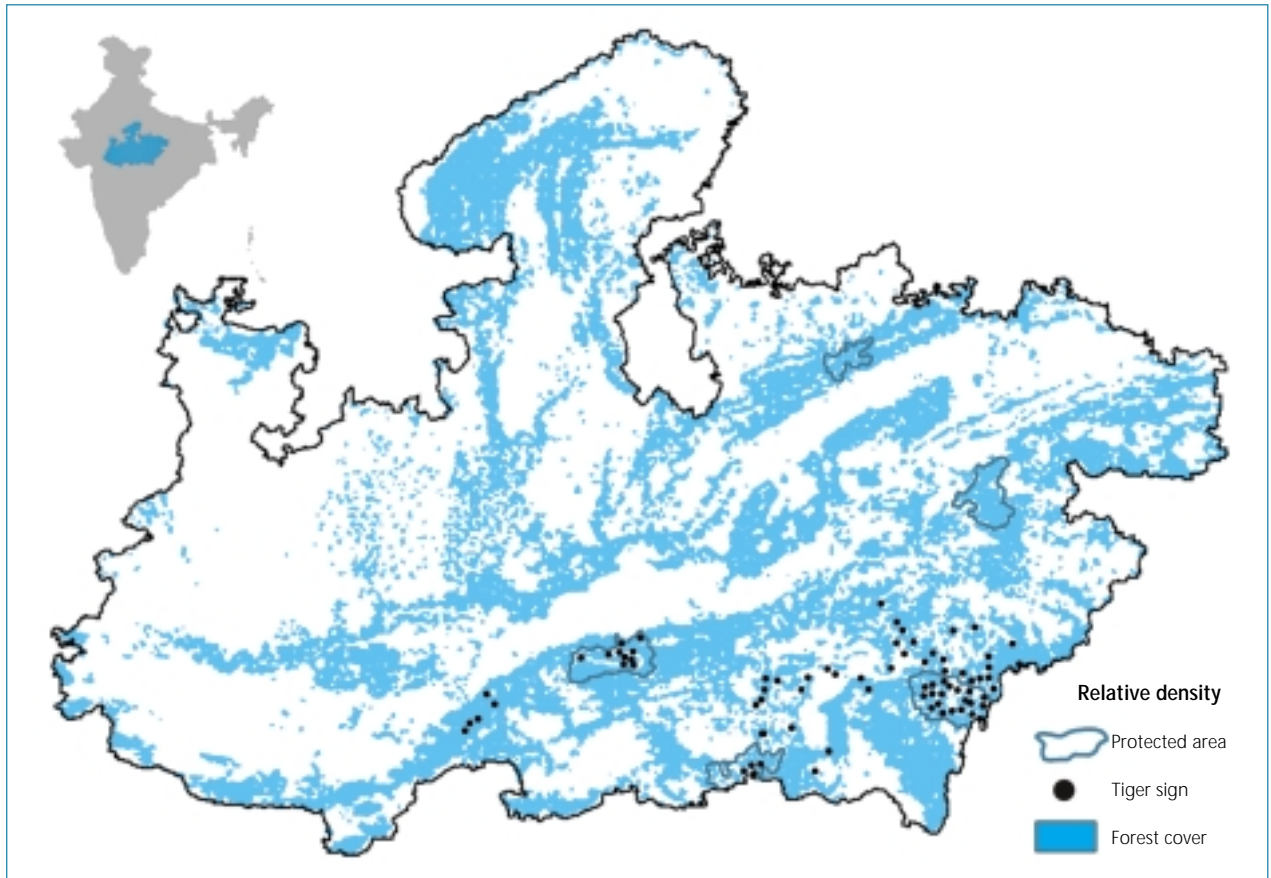
The system, once institutionalised and implemented, will not only serve to monitor tiger populations but will also monitor the status of other biodiversity resources of all tiger occupied landscapes, truly exemplifying the role of the tiger as a flagship. It will serve as an effective tool for decision makers, managers and conservationists alike and will help guide and plan land use policy at a landscape level.

We have tested the logistics of implementation of the above methodology in the Satpura-Maikal

Map 1: DISTRIBUTION OF UNGULATE TIGER PREY IN THE SATPURA-MAIKAL LANDSCAPE



Map 2a: TIGER SIGN PRESENCE WITHIN THE SATPURA-MAIKAL LANDSCAPE



landscape (about 48,000 sq km) in Madhya Pradesh covering 3,150 beats in 178 forest ranges and mapped tiger and ungulate abundance. Tiger presence was recorded in 290 beats with 78 beats having high, 57 having medium and 155 having low abundance of tiger signs. Ungulate tiger prey was recorded in 1,678 beats. Spatial distribution of these is shown in Figures 1, 2a and 2b. The analysis of this data is in progress.

Stage II: Spatial and attribute data

The spatial and aspatial data that are likely to influence tiger occupancy of a landscape will be used for modeling in a GIS domain. The vegetation map, terrain model, night light satellite data, drainage, transportation network, forest cover, climate data, Normalised Difference Vegetation Index, livestock abundance, human density, socio-economic parameters, etc will be used for modeling habitat condition and tiger occupancy. Beat-wise vegetation sampling will be done to generate broad vegetation map. IRS (KISS3 and AWiFS), LANDSAT and AVHRR satellite data will be used. Part of this component will be done in collaboration with Forest Survey of India. This modeling will help in determining

current spatial distribution of tigers, potential habitats, threats to crucial linkages between occupied landscapes and conservation planning.

Stage III: Estimating the population of tigers and its prey

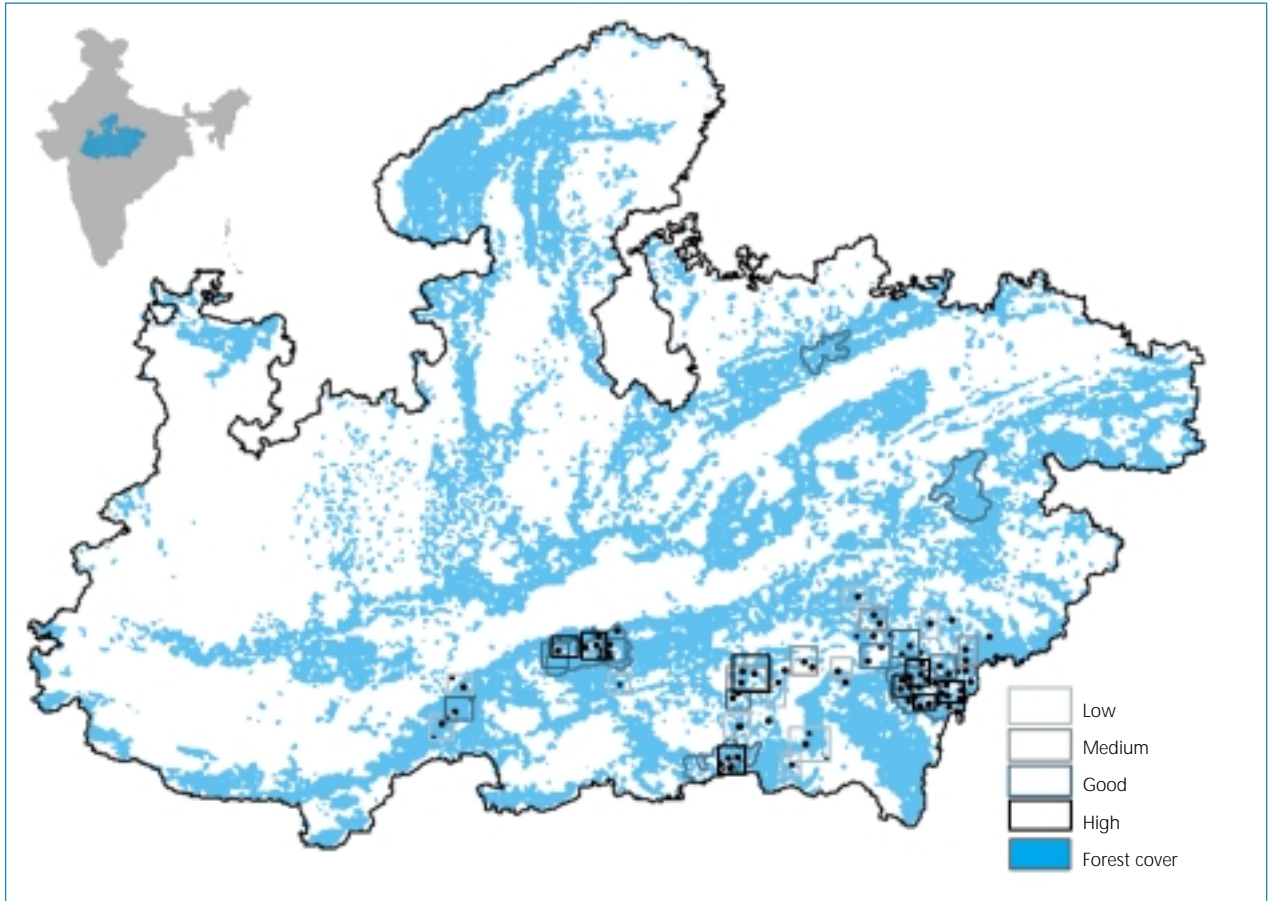
Stage 3 of the proposed methodology answers the question of how many tigers and ungulates are there. Teams of researchers will be deployed in each landscape complex for estimating tiger density and ungulate densities within stratified sampling units.

Tiger numbers

We propose to stratify a Tiger Conservation Unit (TCU) into tiger sign abundance classes of high, medium, low and no tiger sign at the beat and larger spatial resolution (range 100 sq km). In each of these strata, within a landscape (TCU), we propose to estimate actual tiger density in three-five replicates of sufficient size (50-200 sq km).

All known techniques of tiger density estimates will be used depending on the logistic possibility within each landscape: capture-recapture based on

Map 2b: 100 SQ KM HABITAT BLOCKS WITH DIFFERENT ABUNDANCE RANKING OF TIGER SIGNS WITHIN THE SATPURA-MAIKAL LANDSCAPE



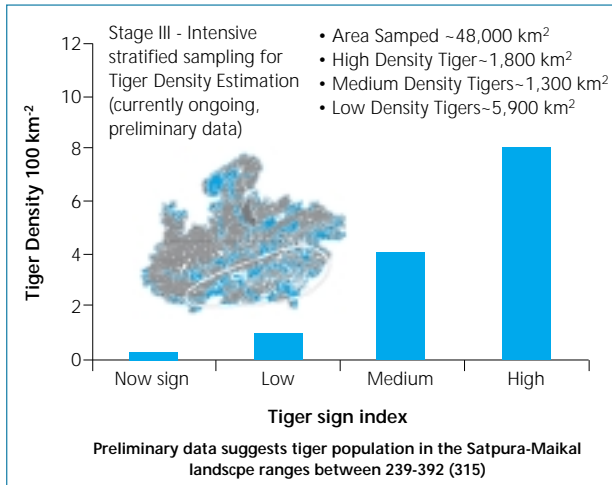
camera traps (Karanth 1995 and 1998, Karanth and Nichols 1998, 2000 and 2002, Karanth et al 2004, Pollock et al 1990, Carbone et al 2001 and Per Wegge et al 2004), mark-recapture based on pugmarks (Sharma et al *in press*) and DNA profile obtained from tiger scats (Broquet and Petit 2004, Prugh et al 2005 and Xu et al 2005). These densities will then be extrapolated for the areas under various density classes within the landscape to arrive at a tiger population estimate (Figure 3). We do realise that these population estimates are likely to have high variances, but since these estimates will not be used for monitoring trends (which is proposed to be done through the site occupancy and relative abundance data), they should suffice the need for converting a relevant ecological index to a more comprehensible concept of numbers.

Tiger prey

Stage I of the protocol would be reporting encounter rates on line transects (Buckland et al 1993); these would suffice for monitoring trends in ungulate

population and site-specific occupancies. To convert encounter rates to density, an estimate of the effective strip width of these transects would be essential. The effective strip width of a transect primarily depends on the visibility (vegetation and terrain type), ability to detect ungulates by different observers and animal behaviour response (Buckland et al 1993). We modeled effective strip widths in different vegetation types of a landscape in the Satpura-Maikal landscape using model ungulate cutouts (Figure 4). Effective strip widths determined from the model and actual sightings of ungulates for different vegetation types estimated for the same season did not differ (Mitra 2004) within Kanha (a protected area). However, ungulate response is likely to play an important role in disturbed areas in determining effective strip widths. We intend to determine habitat and terrain-specific effective strip widths by actually sampling selected sampling units and by modeling. Since the transect line in a beat is habitat-specific (Jhala and Qureshi 2004), we would be able to use these estimates of effective strip widths for converting encounter rates of ungulates to density

EXTRAPOLATING TIGER SIGN INDEX TO TIGER DENSITIES AND POPULATION ESTIMATES



estimates by modeling detection probabilities.

Pellet group counts on transects would serve as an index to the presence of ungulate species and pellet relative abundance (and are not used for absolute density estimation), especially in disturbed areas where actual sightings may be difficult.

Stage IV: Intensive monitoring of source populations

We propose that source populations of tigers (tigers in tiger reserves and protected areas) in each tiger landscape complex be monitored intensively. We propose the following methodology for this monitoring:

Photo registration of tigers: Pictures of individual

tigers obtained by camera traps or by regular cameras should be maintained in the form of a photo identity album. Records should be kept on the location, condition (breeding status, injury, etc) and associated tigers whenever a tiger is sighted. This will provide crude data on ranging patterns, demography and mortality.

Tiger pugmark and other signs: Regular monitoring of tiger signs (pugmark tracings, plaster casts, etc) should be undertaken in every beat at a weekly interval with monthly compilation of data. With experience and exposure to the resident tigers and their pugmarks, the forest staff may be able to identify individual tigers from their track set characteristics (Panwar 1979, Smith et al 1999 and Sharma 2001). Sign surveys and individual tiger monitoring should become a regular task for every guard as was the practice some years ago and is currently practised in some tiger reserves. The monthly data should be mapped and maintained to analyse trends.

Monitoring by telemetry in select areas: Use modern technology of VHF, GPS and satellite telemetry to study and monitor aspects of demography, metapopulation dynamics (dispersal, ranging patterns), mortality, predation ecology and behaviour.

In all source populations, tiger abundance and density should be estimated using camera traps, digital images of pugmarks and/or DNA profile from non-invasive methods biannually.

The Project Tiger directorate will play the overall supervisory and coordination role for all the phases and tasks under each phase of the monitoring.

ANNEXURE - IX Investing in institutions for change: strengthening the Project Tiger directorate

The tiger-reform agenda will not be possible without revamping institutional structures and processes across the board. The Project Tiger directorate itself will have to be strengthened: planning, implementation, monitoring and corrective mechanisms must happen down the line.

Currently, the directorate has only the incumbent director as an effective professional. Whatever assistance he has is deficient in field experience as well as the needed senior status to measure up to the desired equations, as is required to deal with the states.

The directorate staff lacks field training, and doesn't have the seniority to deal with states effectively.

Certainly, this situation must improve. Competent professional assistants having expertise in wildlife management, Geographical Information Systems, statistics and socio-economics. Only carefully selected, individuals from the state forest service cadre and scientific cadres – with the participation of the director in the selection process – can ensure the requisite professional experience and calibre in the candidates selected.

It is on these lines that the Project Tiger directorate shall have to be revamped. It will be necessary to accord a fair measure of autonomy to the directorate in order to ensure quick decision-making and exercising timely interventions for correctives at the tiger reserve and state administration levels. Likewise, effective institutional structures shall have to be put in place to approve programmes and finances.

A competent governing body will be essential to take decisions on policy and programme-merit and its size for the different reserves. The states' response shall have to be ensured by carefully selecting lead managers in each reserve and placing the buffer zones under field directors' control right away, where not already done. Simultaneously, a judicious planning exercise shall have to be undertaken to launch the integrated conservation and people supportive programmes over a larger area, say a sub-landscape much beyond the existing buffer zones.

The Director, Project Tiger should have considerable operational freedom and office support to perform the above role. At present, the Project Tiger directorate is performing the following functions:

National:

A. General

1. Processing of the annual plan of operations received from states for providing funding support
2. Collation and scrutiny of utilisation certificates as received from states vis-à-vis the central assistance provided
3. Collation and scrutiny of monthly, quarterly, half-yearly and annual reports received from the states
4. Monitoring compliance of instructions relating to patrolling/special patrolling/protection initiatives
5. Supervisory field visits and interaction with chief wildlife wardens and field staff
6. Facilitating networking for wildlife crime detection
7. Collation of tiger poaching data
8. Replying to Parliament questions, Parliamentary Committees/VIP references.
9. Filing replies relating to tiger conservation litigation ongoing in courts of law
10. Furnishing replies to audit paras, furnishing reports and returns and participating in the routine meetings of the ministry
11. Fostering awareness, eliciting public support towards tiger conservation
12. Implementing complementary externally aided projects

B. Technical

1. Providing technical comments to the state chief wildlife wardens on management plans of tiger reserves
2. Formulating guidelines on managerial issues relating to core and buffer zones, including carrying capacity for tourist visitation, eco-tourism and park interpretation
3. Carrying out independent monitoring of tiger reserves based on a set criteria by a panel of experts
4. Monitoring the country-level status of tiger population/habitat based on Geographical Information Systems (GIS)
5. Carrying out the all India estimation of tigers, co-predators and prey animals once in every four years
6. Assessing the comparative forest cover status of

- tiger reserves and their surrounds through the Forest Survey of India
7. Facilitating faunal survey of tiger reserves through the Zoological Survey of India
 8. Facilitating floristic survey of tiger reserves through the Botanical Survey of India
 9. Preparing a country-level status paper on Project Tiger
 10. Digital customisation of category-wise funds utilised in tiger reserves since the inception of the project, and its updation
 11. Linking tiger reserves in the GIS domain through National Information Centre for Management Information Systems.
 12. Fostering field research and radio telemetry studies of tigers in tiger reserves in collaboration with the Wildlife Institute of India
 13. Organising national/international workshops on tiger conservation
 14. Facilitating capacity building of field officers in tiger reserve for management and crime detection
 15. Mainstreaming the good/wise practices from various tiger reserves
 16. Participating in training courses of field officers as resource person

International:

1. Participating in international meetings of conventions like the Convention on International Trade in Endangered Species (CITES)
2. Participating in trans-boundary meetings with Nepal on tiger conservation
3. Participating in the meetings of the Global Tiger Forum
4. Evolving bilateral protocol with neighbouring tiger range countries

ANNEXURE - X A critique of cadre-building in the forestry sector and suggestions for human resource improvement

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The institutional hierarchy in the forestry sector is organised in the following structures:

The Indian Forest Service (IFS), an All-India Service, leads forest and wildlife management both in the states and the Centre. Recruitment in the service is direct and by promotion from the State Forest Service. Central government positions are also filled by IFS officers seconded on deputation from the state cadres.

The State Forest Service (SFS): The SFS officers render the function of supervisory assistance in protection and work execution. Recruitment is both direct and by promotion from range forest officers. When IFS was reconstituted in 1966, direct recruitment to the state service was stopped. But, ostensibly, to share the increased workload direct recruitment was restarted in 1978. As it proved later this was an unwise move as over time this has led to widespread stagnation in forestry cadres down the line from rangers to forest/wildlife guards.

Forest Rangers or Range Forest Officers (RFO): Forest and wildlife protection and execution of field activities as well as accounts are organized and controlled with a range as the base unit. The RFO is the key field level functionary. Recruitment is both direct and by promotion from the post of deputy rangers.

Forester/Deputy Ranger (Range Assistant or Round Officer): A range is usually organized into two subunits in charge a forester or deputy ranger. They lead or participate in patrolling parties as well as execute field works and other activities. Recruitment at forester level is both direct and by promotion from forest guard level. Generally deputy ranger Positions are all filled by promotion from foresters.

Forest and Wildlife Guards: Basic protection unit is a beat manned by a forest/wildlife guard assisted by a 'watcher'. In PAs, guards must live in interior chowkis and carry out patrolling as well as keep track of animals or animal-signs and habitat use by them. They thus render valuable information of use

in wildlife management. Besides they also carry out the works e.g. fire protection, road maintenance.

Foresters and forest/wildlife guards constitute the main frontline whereas the rangers are the main field executives. ACFS (IFS probationers and SFS officers), DCFS and CFS carry out different levels of supervisory and control functions in an ascending order from rangers above:

Assistant Conservator of Forests (ACF): Field supervision of protection and management.

Deputy Conservator of Forests (DCF): Above plus planning annual work programmes, budgets, rendering accounts and exercising administrative control over their territories and units in their charge, say a forest division, a protected area or a part of a tiger reserve.

Conservator of Forests (CF): As head of a forest-circle or the field director of a tiger reserve, carries out planning, oversees implementation and exercises overall administrative control. In a territorial charge a CF usually controls 4-5 forest divisions.

Poor Cadre Planning & Management

The adverse impacts of revival of direct recruitments to the SFS have significantly upset the promotion prospects lower down leading to frustration in the subordinate forestry cadres – the rangers and the frontline staff. This has been further drastically compounded by the heavy direct recruitments in the IFS and SFS and even RFO cadres during 1978 up to about 1990. In the IFS the peak years were 1988, 1989 and 1993, otherwise they have remained at annual averages during periods shown below:

- Peak years: 1988 - 155; 1989 - 107 and 1993 - 82
- 65 during 1968-1986
- 55 during 1989-1997 (excluding 1993, a peak year)
- 25 during 1998-2003

In the SFS also these have been erratic with irrationally high levels from 1980 to 1990 averaging at 123 per year. They dropped off to about 33

between 1991 and 1998, steeply declining in 1999 to just three. There was no recruitment in 2000 and 16 were recruited in 2001. After that there have been just a few or no recruitments.

At RFO level the recruitment were again high during 1978 to 1982 averaging at 470 per year. It ranged from 120 to 290 between 1983 and 1989, averaging at 209 per year. Later it dropped to a trickle. The total cadre strength of RFOs of all states put together is 9974. If a third is to be filled by promotion from lower rank, the net strength of direct recruits would be 6600. If an average of 20-25 year stay in RFO cadre is taken before promotion, this would suggest a mean quota of about 260-330 per year, or say an average of 300 per year. Steady direct recruitment to the RFO cadre at this rate is critical because the average age of this important field executive cadre must remain around 40 years. But erratic heavy recruitment in six years from 1978 to 1982 upset this and also the avenues for promotion for the frontline staff.

It is not difficult to see that the direct recruitments to the different levels of forestry cadres have been erratic and irrational across the board. This has undermined the functional efficacy of institutional structures in field functions. This has also led to marked stagnation in all cadres too, which has been a major reason for the low morale of the forestry services all across. As challenges and threats have aggravated, the forestry service efficacy has been steadily decimated by these horrors in cadre planning and management. It has also done untold harm to the training institutions, also all across.

The forestry services have to discharge a wide spectrum of functions from policing to development including contribution to the socioeconomic well being of the forest dwellers. Besides the well over a decade old adoption of none or next to negligible direct recruitments by the states at all levels has given a severe blow to the protection and development functions of the forestry services.

While it is not advisable to make direct recruitment to the SFS cadre in most states it is necessary to fill up positions by promotion from the RFO cadre. It is essential to revive direct recruitments at 'normal' levels immediately at the RFO and forester levels. Recruitments to the FG/WLG cadres shall have to be somewhat heavier in order to fill up large-scale vacancies and thus rationalize the average age of the frontline. There is, however, no case for any increase in the respective sanctioned strength of all the cadres. In order to mend the fence with the local community, a good measure would be to fill up all or at least 50 per cent posts at forester and 75 per cent posts at forest/wildlife guard levels by preferential appointment of local candidates. For the tribal candidates having good jungle-craft skills

(ascertained by test) the educational qualifications may be brought down to just 5th standard of school education. In any case all cadres need a thorough review and an obligatory institution of a rational strategy so that such upsets that affect the very core of forestry and wildlife functions are not ever repeated.

Capacity Building

In tune with the decay in the forestry services, the capacity building has deteriorated too, mainly from lack of interest on part of the states. Thus, there is not only a shortage of staff but also a steep fall in the professional capacity, particularly in wildlife management and in respect of the needed paradigm shift in favour of participatory management of forests and PAS through initiatives e.g. JFM and ecodevelopment. The low availing of training facilities in wildlife management in the WII is now the reason of many PAS in many states being managed by untrained officers. The training capacity of WII for 9-month PG Diploma course in wildlife management for IFS and SFS officers is 30 per year but right through nearly two decades the actual number of trainees has stagnated at less than 20 on an average. Likewise the 3-month certificate course for the rangers having also a capacity of 30 has remained underutilised at well below 20 per year. In order to meet the reason advanced by the states of paucity of funds the MOEF has provided for cent percent training cost to be borne by itself from 2003. This has so far had only marginal improvement. It is also seen that training interest varies from state to state.

There is low priority to capacity building and to undertaking organized staff development plan in the forestry services. The worst sufferer of this lapse is the wildlife management. States have not taken much interest in upgrading their forester and forest guard training schools in terms of introducing special packages for wildlife management within forestry courses and undertaking full time wildlife management courses. Some years back the WII had developed specific curricula in wildlife management for forester and wildlife guard courses and selected two schools (Kalagarh in Uttaranchal and Bandhavgarh in Madhya Pradesh) for assistance by way of training of trainers and also helped run one course. But these schools are now running under utilized. It is necessary to strengthen these schools so as to meet the needs of other states in the respective regions. WII should also ask other large states to come forward to avail this capacity building help in developing their schools and staff. WII has an enormous responsibility ahead to bring up capacity in states and to prepare a fair number of IFS officers in order to constitute the long awaited 'wildlife sub-

cadre', which the TTF has fully endorsed. But unfortunately it has lost long years in stagnation despite its efforts to the contrary.

Preparing for paradigm shift

There has been some recognition but hardly any conviction for the paradigm shift in forest and wildlife management towards an integrated management strategy to ameliorate degraded forests in order to improve ecosystem services and enhance productivity for the forest dwellers, the country at large and for state revenues. Diversion, degradation and fragmentation of forests from pressures of industrial development, markets and a steep rise in human population post-independence have forced foresters to adopt a protectionist enforcement approach. This has cost them the loss of sympathy of forest dwellers and the development planners alike.

While industrial development needs being obligated to observe stricter discipline and to carry greater environmental responsibility, the forestry-wildlife sector equally needs to become a key mainstream development agency, especially contributing to the well being of the forest and forest-fringe dwellers. The sector must also simultaneously improve overall conservation in the interest of ecological security including water security, protecting our rich biodiversity and wildlife, endangered species included. This reinforces that while a forester-wildlifer is a strict enforcer against miscreants, he is a friend and development functionary of the local people, particularly the poor and the landless forest-dependents

The needed paradigm shift entails an ability to

envision conservation at landscape level, which while securing ecosystem services, biodiversity and wildlife helps rapid amelioration of degraded forests and pastures in a transparent participatory mode with the genuine local stakeholders and deserving beneficiaries. IGNFA, WII, IIFM and rangers colleges, all institutions in the domain of the MOEF, need to gear up to prepare the forester-wildlifer to be a realistic visionary, a planner and implementer of intergraded programmes capable of ushering the paradigm shift into the field level. This will require a thorough review of all curricula of these institutions as well as a wherewithal for competent and adequate training of fresh recruits. Equally, IGNFA and WII shall have to expeditiously take up the work of planning and running refresher courses for IFS and SFS officers. Short-term courses will be needed for senior IFS officers and medium terms courses for other IFS and SFS officers. WII shall also have to design and implement such courses for the rangers. Both institutions shall have to take up special training of trainers (TOT) programmes imparting expert help in the initial stages in institution based and field training modules. They must continue to run such programmers later as and when needed to update the capacity of training institutions. The Director of forestry education shall similarly have to participate in the capacity building of rangers colleges and in effectively running programmes.

Importantly, similar assistance will be needed for forester and forest/wildlife guard training schools on the new outlines suggested. Identified regional schools should be dedicated to running special wildlife management courses for foresters from all states and for wildlife guards from the states that do not have their own wildlife training schools.

ANNEXURE - XI Amending the criminal provisions of the Wildlife (Protection) Act, 1972

■ Critique by PILSAC, New Delhi for the Tiger Task Force

A. Offences and penalties

- The Act prescribes various offences and penalties. These are discussed below:
 - a. Any violation of the provisions of the Act, its rules or orders made thereunder attracts a punishment of three years or a fine up to Rs 25,000 or both [Section 51(1)]. A second or subsequent offence of the same nature attracts an imprisonment term of at least three years extending to seven years and a minimum fine of Rs 25,000 [second proviso to Section 51(1)].
 - b. Where offences are committed in relation to animals mentioned in Schedule I, or Part II of Schedule II, or where the offence relates to hunting in a sanctuary or national park or changing their boundaries, the punishment will be at least three years imprisonment extending to seven years and a fine of Rs 25,000 [first proviso to Section 51(1)].
 - c. Violation of provisions prohibiting trade or commerce in trophies, animal articles and the like, derived from certain animals, would attract a punishment of at least three years of imprisonment extending to seven years and a fine of Rs 10,000 [Section 51(1A)].
 - d. Any person who teases, molests, injures, feeds animals in zoos or causes disturbance to animals or litters the zoo will be punishable by imprisonment for a term of six months or a fine which may extend to Rs 2,000 or with both [Section 51(1B)].
 - e. Persons convicted under the provisions of the Act also stand to lose their license or permit [Section 51(2) and 51(3)] while also having their license under the Arms Act, 1959 cancelled/reinforced by an order that no re-issue of arms license be made till up to five years from the date of conviction [Section 51(4)]. They will also have no claim to the vehicle used while the offence was being committed [Section 51(2)]. It also becomes difficult for persons convicted to receive bail under Section 51A.
 - f. Persons who, without reasonable cause, fail to produce the things they are required to produce under the Act, will be guilty of the offence [Section 50 (8)].
 - g. It is also important to point out that prosecution

under any other law is not barred for any act which constitutes an offence under this Act, or from being punished for a higher punishment or penalty than that provided by this Act [Section 56].

B. Special provisions relating to the investigation procedure

1. The Act prescribes distinct and special procedures for investigation which are (a) different from those for the investigation of an offence under the Code of Criminal Procedure, 1973 and (b) ostensibly designed to empower forest officials to initiate and participate in the investigation process so that any immediate violation of the Act can be remedied. To the extent to which forest officials have been brought into the investigative process to deal with an immediate transgression of the regime of the Act, these provisions are salutary. But after an initial investigation is enabled in this way, the procedure limps forward, only to get ensnared as a relatively minor case through the criminal process.
2. It might be useful to recount the special investigative provisions of the Act of 1972 (as amended). These are as follows:
 - Power to enter, search and seize
 - Power to arrest and detain
 - Power to record evidence
 - Duty to render assistance
 - Power to destroy or dispose

Power of entry, search and seizure:

Section 50 (1) (a) allows certain officials, including the Director or any other officer authorised by him in this behalf, or the Chief Wildlife Warden or the authorised officer or any forest officer or any police officer not below the rank of a sub-inspector, to require the production, for purposes of inspection, any article of wildlife or license and permit documents to be kept by the person under the provisions of the Act. These officers are also given powers of search [Section 50 (1) (b)] and seizure [Section 50 (1) (c)].

It should be noted that this immediate power of entry, search and seizure can be exercised to (a) require any animal, trophy to be produced; (b) stop a vehicle or search premises, baggage or other things;

or (c) seize any animal, trophy, plant in respect of which an offence is created. An exception is made of fisherfolk who inadvertently enter by boat, not used for commercial fishing, into a national park.

Power to arrest and detain:

There is a power to arrest and detain without warrant for something impermissible — done without permission. Such a detention may not take place if the officers in question are satisfied of the name and address of a person and if the person concerned will answer a summons or other proceedings that might be taken against him Section 50 (3). While such an approach is conducive to civil liberties, such provisions work against the poor, who often have no fixed address nor are able to satisfy the officer of their *bona fides*. It should be noted that persons detained or things seized will be produced before a magistrate [Section 50 (4)].

The power to record evidence:

Under Section 50 (8) (d), any officer not below the rank of an Assistant Director of Wildlife Preservation or Wildlife Warden shall have the power to receive and record evidence. More importantly, such evidence can be admissible in any subsequent trial under Section 50 (9) before a magistrate, the only condition being that it should have been taken in the presence of the accused person.

Duty to render assistance:

Under Section 50 (7), all persons have a duty to render assistance for the purposes of (i) prevention or detection of an offence; (ii) apprehending persons charged with violation of the Act and (iii) for seizure of substances when exercising the power of seizure under Section 50 (1) (c).

Power to destroy or dispose:

If the article seized is government property as defined in Section 39, then the officer has the power to arrange for the sale of the seized substance under Section 50 (6) (a). If on the other hand, the article is not government property, then the proceeds of the sale shall be returned to the owner under Section 50 (6) (b).

These special provisions are necessary in order to police the various areas and regimes created by the Act of 1972. They are also hedged in by civil liberty precautions, so that what is done is placed before a magistrate; and a person arrested may not be detained by an officer where the *bona fides* of an arrestee are established. This does hurt the landless, but that is no reason for the provisions to be removed. Consistent with the Constitution, it should be made clear that where a person is arrested, he should be brought before a magistrate within 24 hours. The provisions that remand live or captive

animals to the custody of the person, in whose possession they are, need examination.

These provisions provide the enforcement process a healthy start; the process then flounders. There is no provision for inviting a Special Investigation Team. As soon as these ‘immediate’ acts are done, the entire case is placed before a magistrate to limp along without priority or speed.

C. Method and forum of trial

Following investigation, a case proceeds on the basis prescribed under the Code, 1973 [Section 4(2), CrPC] unless the Wildlife Protection Act, 1972 lays down special provisions to the contrary [Section 5, CrPC]. Broadly speaking, this means:

1. There is no distinction between serious and trivial cases. All cases proceed under weak trial regimes.
2. All the cases proceed as complaint cases, rather than serious criminal cases to be tried by sessions.
3. Even as complaint cases, where the offence attracts imprisonment for two years or more, it is treated as a warrant case to be tried by a procedure different from normal crimes.
4. Where the offence attracts imprisonment for less than two years, it is treated as a summary case, to be tried by a less rigorous procedure.
5. Very minor cases can be tried by summary procedures.

What needs to be done?

The cases need to be treated as serious criminal cases. The *first step* must be to differentiate between serious and non-serious cases and ensure that serious cases are tried as police cases by the Sessions Courts.

This has an impact on the manner in which the cases are prosecuted. Since they are complaint cases, the police do not prosecute them. It is left to the overworked forest officials to come to court and build the case before it can be taken further. The cases linger on because they are prescribed as ‘lesser’ cases and are not treated as priority. The prosecutors, mainly forest officials, are inept and lose interest. The *second step* therefore must be to have special prosecutors.

Since these cases randomly languish in courts throughout the country, they are not monitored by a Centralised Monitoring Task Force either at the state or the Union level. So, the *third step* must be to create a Centralised Monitoring Task Force for all cases — especially the serious ones.

In order to appreciate the distinctions created by the Code, it would be useful to summarise the relevant provisions of the Code. The Code makes a distinction between summons cases and warrant cases. Summons cases under Section 2 (w) mean a case relating to an offence and not being a warrant

case. Warrant cases under Section 2 (x) of the Code are those relating to an offence punishable with death, imprisonment for life or imprisonment for a term exceeding two years. As has been listed earlier, the various offences of the Wildlife Protection Act, 1972 prescribe punishment of more than two years except for violation of Section 38J related to teasing of animals in a zoo. Thus, Sections 238-250 of the Code dealing with warrant cases would come into play for all the major offences of the Act.

When the case is instituted on the basis of a police report, the magistrate, once satisfied that the various documents that were to be handed over to the accused under Section 207 have been done so [Section 238], proceeds to frame the charge [Section 240]. If the magistrate does not believe a case can be made out on the police documents, he may discharge the accused [Section 239]. When the accused records a plea of guilty he is convicted under Section 241. If he pleads not guilty, the magistrate frames the charge if a case has been made out and proceeds to hear the case on merits after the prosecution [Section 242] and the defence [Section 243] have arrayed the evidence required. If the case is not instituted on a police report, then the magistrate hears the prosecution and decides whether, on the basis of the evidence presented by the Prosecution [Section 244], an offence has been made or not. If no case has been made out against the accused, then the magistrate discharges the accused [Section 245]. Otherwise, a charge is framed under Section 246(1), and the matter goes to trial, following the procedure prescribed in Section 246. With respect to the offence of teasing in a zoo, the procedure followed is the mechanism indicated for a summons case. Summons cases do not require the framing of a charge [Section 251] and if the accused pleads guilty, the magistrate starts the trial process as prescribed in Section 254. The forum to be used for conducting trial is guided by Part II of the First Schedule of the Code, which deals with the classification of offences against other laws. On the basis of the punishment prescribed, the case goes before a magistrate (for punishment of imprisonment of less than three years) or a First Class Magistrate (for imprisonment of three years and not more than seven years) or a Sessions Court (for imprisonment of seven years, life or the death sentence).

D. Special provisions

The Act prescribes certain special provisions relating to cognisance of the offence, compoundability of the offence and presumptions at the stage of trial which are outlined below:

1. Section 54 allows the Government to compound any notified offence whereby a person, who has committed such an offence, would be discharged on paying a certain sum of money [Section 54(2)]. Such compounding is done only to the extent of a penalty of Rs 25,000. All such compounding terminates all pending proceedings in relation to that offence, and no further proceeding is taken in respect of that offence. The penalty is determined by the forest officer in accordance with Section 54 (1).
2. Every person's complaint of the violation of the Wildlife Protection Act, 1972 does not result in a trial. The process of cognisance — the manner in which judicial notice is taken of the offence — is limited to complaints according to the provisions of Section 55, which lists authorities like the Director, Wild Life Preservation, Member-Secretary, Central Zoo Authority as being competent to make the complaint. Section 55 (c) also allows any general member of the public to make a complaint, after giving notice of 60 days to the government that he intends to do so. If the government does not proceed on the prosecution, then such a person could complain to the Court, which would then take cognisance of the offence.
3. Other special provisions relate to presumptions in Section 57, which reverses the onus of proof on to the person who has been caught with an animal part and presumes unlawful possession of the same unless the contrary is proved.
4. A special provision relating to offences by companies in Section 58 pins liability on the person from the company who has connived in the commission of the offence.
5. Any person involved in the abetment or attempt to violate the provisions of the Act is deemed to have violated that provision and punishment accordingly follows [Section 52].

ANNEXURE - XII Guidelines on establishment of wildlife wings etc issued during the period 1973- 1981

1. Letter No. 694-PMO/73 dated 27 December 1973 of the Prime Minister to the Chief Ministers of all States.
2. Letter No. 15/ii (i)74-AIS(IV) dated 16 January 1976 of the Cabinet Secretariat (Deptt of Personnel and AR) to the Chief Secretaries of all States and UTS.
3. Letter No. J-11014/75-76 FRY(WL) dated 16 September 1976 of Joint Secretary (F&WL), Ministry of Agriculture to the Chief Secretaries of all States and UTS.
4. Letter No. J-11014/75-74 FRY(WL) dated 25 October 1976 of Joint Secretary (F&WL), Ministry of Agriculture to the Forest Secretaries of all States and UTS.
5. Letter No. 279-PMO/76 dated 16 December 1976 of the Prime Minister to the Chief Ministers of all States.
6. Letter No. 5-6/80-FRY(WL) dated 8 April 1980 of the Union Minister of Agriculture to all Governors and Chief Ministers.
7. Letter No. 660-PMO/80 dated 20 April 1980 of the Prime Minister to all Governors and Chief Ministers.
8. Letter No. 8-1/80-FRY(WL) dated 21 April 1981 of Joint Secretary (F&WL), Ministry of Agriculture to the Forest Secretaries of all States and UTS.