

COMPENDIUM OF
GUIDELINES & CIRCULARS
ISSUED
BY
DIRECTOR
(PROJECT TIGER)
NEW DELHI

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November, 2004

‘Project Tiger’ implementation by States is governed by the Government of India guidelines and the Indian Board for Wildlife Task Force Report on Project Tiger. The Task Force had suggested adherence to the holistic environmental approach for field management of Tiger Reserves. Para 8.7.1 of the report explicitly states that in Wildlife Reserves, wildlife interest must take priority over timber production. The Steering Committee of Project Tiger (1976) has emphasised that forestry operations in the buffer zone should be organised and reoriented to keep the interests of wildlife as the primary objective. The general strategy of the Project, therefore, involve setting up of several Tiger Reserves each including a “core area” free of all human use, and a “buffer” having conservation oriented land use. The Management Plans for each Reserve is prepared on the three cardinal principles:-

- Elimination of all kinds of exploitation and disturbance from the core area, while rationalizing such activities in the buffer.
- Limiting the habitat management to repairing the damages inflicted on it by biotic pressure so as to resurrect the habitat in its natural form.
- Researching facts about habitats and wild fauna, while monitoring the changes in flora/fauna owing to Project Tiger initiatives.

The report of the Task Force of the Indian Board for Wildlife (1983) on “Eliciting Public Support for Wildlife Conservation” also emphasised that the security of wildlife reserves should be ensured by constituting “buffer belts” surrounding core units. While the core should be free from all human use, the buffer should allow restricted human use with a **strong conservation bias**. This would require people to forego all use of forests in the core, while considerably curtailing such use in the buffer zone. In order to compensate for these restrictions, the productivity of the outer depleted area should be managed as a “**multiple use surrounded**” in terms of both agriculture and other related activities with viable alternatives. Therefore, such multiple use areas should be regarded as “**special areas for eco-development**”.

The buffer zone/multiple use area is a delineated area around a Core Zone of a Tiger Reserve/National Park/Sanctuary, which facilitates:

- **Extension Buffering** (Providing Habitat Supplement to the spill over population of wild animals from the core)

- **Social Buffering** (Providing socio economic function to local people living in such areas so that their resource dependency on the protected area/core zone of tiger reserve is reduced)
- The habitat conserved in the buffer zone also serves as a **corridor** for wild animals.

Guidelines for the Management of Buffer Zone/Multiple use Areas of Tiger Reserves:

The buffer zone of a Tiger Reserve has twin functions, viz.:

- To provide habitat supplement to the spill over population of wild animals from the core area, conserved with the active cooperation of stakeholder communities, and
- Providing site specific, need based, participatory eco-development inputs to local stake holders for reducing their resource dependency on the core zone and for eliciting their support towards conservation initiatives in the area.

Therefore, both the buffer zone and the multiple use area, if any, surrounding the buffer, should be subjected to conservation oriented community programmes as a part of eco-development, taking care not to distort the village dynamics in an artificial manner resulting in the entry of market economy, which may make the whole exercise counter-productive.

Hence, the following guidelines are made for the management of buffer zone/multiple use areas around Tiger Reserves:-

1. The Management Plan of a Tiger Reserve should have a separate section/chapter for buffer zone highlighting the strategy for eco-development in the impact area. The numerous village level micro plans would form part of this section.
 - (A) Communities living in the buffer zone/multiple use area of Tiger Reserves, Reserved Forest, Protected Area (having the status of Sanctuary, Conservation reserve, Community reserves or revenue land) should be involved in the management of Tiger Reserves with reciprocal commitment as a part of overall conservation strategy. The reciprocity would decide in the mutual *quid pro quo* of
 - (i) Fostering site-specific eco-development initiatives based on participatory micro-level village plans to provide alternative resources to people apart from livelihoods. The eco-development inputs, interalia, may include biomass substitution (eg. alternative fuels), biomass generation and forestry, eco-tourism, agriculture, watershed management, small irrigation, local livestock improvement, agro processing, artisanry and any other site specific item as desired by the people, not having a deleterious effect on Protected Area resources.

- (ii) Reciprocation by the local people through specific measurable actions as per a MOU for improving protection and conservation, which interalia, may include curtailment of illicit grazing, reducing fuel wood and small timber collection from Protected Areas, increasing participation in fire protection and anti-poaching efforts.
- (B) Community involvement in the management of Sanctuaries, Conservation Reserve and Community Reserve, in case they form part of the buffer zone of the Tiger Reserve, should be promoted as provided in sections 33B, 36B and 36D of the Wildlife (Protection) Act, 1972.
2. No intensive form of land use like mining, quarrying and the like should be fostered in the buffer zone, and due care should be exercised while granting NOC to such activities in private/revenue areas, if any, included in the buffer/multiple use area.
 3. No 'clear felling' should be allowed in the forest areas of the buffer/multiple use surround included in the Tiger Reserve. Such areas should be managed by specially formulated, site specific '**forest plans**' forming part of village level microplans and should be executed with the active involvement of local communities. Only 'selection-cum improvement fellings' should be done with the main objective of sustaining the demands of people living in the area.
 4. Protected Area/Ecotourism activities in the buffer zone/multiple use areas of Tiger Reserve should be fostered as a component of eco-development with the active involvement of stakeholder communities.
 5. Capacity Building of field staff as well as Eco-Development Committee members should be undertaken on a regular basis.

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Annexure – I

'MENU' OF OPTIONS EMERGING FROM BEST PRACTICES UNDER THE INDIA ECODEVELOPMENT PROJECT (BASED ON A STUDY BY THE "PEACE INSTITUTE", NEW DELHI):

A) POLICY AND LEGAL MATTERS

- 1) It is evident that sites like Periyar TR, Kanha TR, KMTR, Gir NP, Buxa TR and Pench TR which have benefited from **clear policy directives** and **enabling legal regime/s** have produced commendable results. Clearly in future timely planning and action on devising national / state level ecodevelopment policies that facilitate institution building would be sine quo non for achieving lasting results. Further any policy sans enabling legal regime/s shall remain at best a half hearted step.
- 2) States need to see the results of IEDP as more than just a short term project's outputs but devise policy tools that **address threats that go beyond the control of the PA management.**
- 3) **Reciprocal commitments** by the beneficiaries for park protection as provided by the IEDP has gone a long way in improving park's protection and built good synergy between the people and the park. This should be incorporated as an essential element of any future ecodevelopment strategy.

B) INSTITUTIONAL MATTERS

- a). **Effective management planning** as experienced by Periyar TR, KMTR, Kanha TR and Gir NP needs to be emphasised.
- b). **Specialised EDCs** at Periyar has been a singular exceptional initiative under the IEDP. Periyar TR model should accordingly be adapted elsewhere too.
- c). **Transfer of responsibility** to manage EDC affairs at Kanha TR and Pench TR in form of an EDC member being nominated as the Joint Secretary of EDC is a positive development whose success needs to be monitored and replicated elsewhere if experiment at Kanha and Pench show encouraging results in form of EDC empowerment.
- d). **Unified Buffer** division at Kanha TR is a success story which should be replicated in other such Pas.
- e). **Capacity Building** of frontline staff and the local people at Gir NP through focussed training and long term **EE** has changed attitudes and empowered staff as well as the local people. The Gir experience needs to be widely disseminated and adapted at other sites.

C) CROSS CUTTING INNOVATIONS

- a). **Income Generating Activities (IGAs)** for social change at KMTR is an excellent example of visionary leadership and team effort.
- b). **Women's saving and credit groups (SHGs)** at GHNP are again a remarkable effort resulting from motivated leadership.
- c). **Eco tourism** and use of 'Mowgli' as the Park's mascot at Pench TR is an innovative use of historical / literary fame for attracting tourists.
- d). **Pilgrim management at Periyar** that has transformed a recurring problem into an opportunity is a glaring example of successful conflict management.

**IMPACT OF IEDP INPUTS IN VARIOUS SITES VIS A VIS ILLEGAL ACTIVITIES
/ REDUCTION IN CRIME INVOLVING THE FRINGE DWELLERS**

PA	Relevant Inputs	Impact	Remarks
Periyar	<p>A). Revised Management Plan, Staff training, Staff welfare measures, patrolling camps, watch towers, improvement of roads, trek paths, and vehicles for improved mobility</p> <p>B). Formations of EDCs and participatory micro planning. Reciprocal commitments by EDCs.</p> <p>C). Awareness campaigns and EE of people in fringe areas</p>	<p>1). Illegal Ganja collection reduced by 80 %</p> <p>2). Illegal Sandalwood felling reduced by 90 %</p> <p>3). The ex-Vayana (Cinnamon) bark collector EDC apprehended 77 cases of illegal extraction leading to full control over illegal extraction which was found to be about 30,000 kg (10,000 trees) annually as per a study conducted in the year 2000.</p> <p>4). Forest fire incidences have stabilized due to greater transparency, better reporting and patrolling.</p> <p>5). Regulation of Sabarimala pilgrimage attracting around 50 lakh pilgrims per year by the SAPP EDC have protected forests from illegal felling of trees for fuel wood by substituting fire wood by LPG.</p>	Periyar is an excellent example of park – local people synergy that benefits both Park and the Park fringe dwellers.
Pench	<p>A). Establishment of patrolling and anti-poaching camps, effective wireless network, fleet of vehicles and motorized boats, improvement of roads, labour huts and staff quarters, Surveillance along HT lines, Erection of Game Proof Walls. Strategic creation of water bodies in the Park.</p> <p>B). Participatory micro planning and the formation of EDCs. Distribution of Bio gas plants, fuel efficient stoves and LPG connections. Pasteur development in fringe villages. Development of informer networks with EDC assistance (Reciprocal commitment).</p> <p>C). Promotion of Eco tourism.</p>	<p>1). There has been no incidence of wild animal poaching in 2002 and 2003.</p> <p>2). The menace of illegal fishing in the Totladoh reservoir has been effectively stopped during the year 2002-03.</p> <p>3). Incidences of forest fires and illegal grazing have been effectively controlled.</p> <p>4). Illegal collection of fire wood from the Park has been brought under control as the people have reduced their dependence on fire wood.</p> <p>5). Incidence of road kills along the National Highway have been effectively controlled by judicious creation of water bodies for animals so that they no longer require to cross the NH in their search for water.</p>	As a result of IEDP there is now a better understanding and appreciation of each other's problems and build up of good trust between the Park and the people in the fringe villages.

Gir	<p>A). PA consolidation, strengthening of check posts, improvement in wireless communications, erection of watch towers, vehicles. Training of staff and EDC members.</p> <p>B). Participatory micro planning and formation of EDCs</p> <p>C). Environmental Education and awareness generation amongst the people of the fringe villages.</p>	<p>1). Park boundary better defined and demarcated by rubble wall over 41 km.</p> <p>2). Long standing encroachments over Park land voluntarily withdrawn by the fringe villagers.</p> <p>3). Reduction and regulation in grazing by the Maldhari and other cattle.</p> <p>4). Reduction in instances of illegal forest fires in the Park.</p> <p>5). Reduction in instances of illegal fuel wood collection from the Park</p>	<p>By addressing social issues the PA authorities have been able to reduce Park people conflicts</p>
Buxa	<p>A). Upgradation of Management Plan, training of staff, construction of staff quarters, consolidation of roads and boundary surveys and demarcation, augmentation of wireless communications.</p> <p>B). Participatory micro planning, constitution of EDC and FPC, Reciprocal commitments.</p> <p>C). Environmental education and awareness activities.</p>	<p>1). No poaching of mega fauna in last 4 years.</p> <p>2). No fire in BTR for last 4 years.</p> <p>3). No assault on staff in last 4 years.</p> <p>4). Illegal firewood collection reduced by 70%</p> <p>5). Reduction in illegal grazing. Some of the fringe FPC/EDC have invested in a cattle pound and have been quite effective in controlling grazing in their areas.</p>	<p>Clear government orders have formed the basis of EDC and FPC formation. A confederation of FPCs/EDCs at beat level for better synergy is a good innovation.</p>
Ranthambore	<p>A). Preparation of Management Plan, enhancement of Park infrastructure including staff quarters, roads, wireless network, survey demarcation and fixing of boundary pillars, training of staff and EDC members.</p> <p>B). Establishment of EDCs and participatory micro planning. Village development activities.</p> <p>C). EE and awareness activities</p>	<p>1). Illegal grazing significantly controlled.</p> <p>2). Poaching of animals under control.</p> <p>3). Distribution of LPG and other fuel saving measures has reduced incidences of illegal and felling of trees and removal of fuel wood as head loads.</p> <p>4). Boundary demarcation has controlled encroachment over Park land.</p> <p>5). Incidences of forest fires have virtually been eliminated in the core and the buffer areas of the Park.</p>	<p>a). Tiger population in the Park has shown an increasing trend.</p> <p>b). The Park has faced severe fund flow and timely sanction of works problem during the IEDP implementation.</p>

Palamau	<p>A). New Management Plan prepared. Regional planning Committee established and functional. Roads improvement, staff quarters, Field equipment sets for frontline staff, new vehicles for improved mobility.</p> <p>B). Participatory micro planning and formation of EDCs in 65 villages. Gender considerations taken into account through a women coordinator. Women SHGs constituted. Funds channeled through the EDC account for ED activities.</p>	<p>1). Reduction in grazing pressure on forests.</p> <p>2). Joint patrolling of park by staff and the EDC members.</p> <p>3). EDC in villages in Kechki east range have assisted the FD in effecting two major seizures of timber smuggling in 2003.</p>	<p>a) Palamau suffers from a serious law and order problem in form of extremists inside the park.</p>
Nagarhole	<p>A). Solar fencing of park boundary, Elephant proof wall and trench, Field staff quarters, anti poaching camps, road maintenance, watch towers, new vehicles.</p> <p>B). Participatory micro planning and establishment of 108 EDCs. ED activities like fuel saving devices, housing construction material, EPTs, and repairing of community halls and schools, Income Generating activities. Development of <i>Hadis</i> emphasised. Tribal relocation programme.</p> <p>C). Awareness generation and EE of local communities.</p>	<p>1). Illicit grazing of livestock from the EDC villages in the park has been almost eliminated.</p> <p>2). EDC villagers have formed village forest protection force (VPF) which supports FD in protection of park against fire, illegal felling and poaching of wild animals.</p> <p>3). Solar fences have reduced elephant – man conflicts.</p> <p>4) The number of forest – wildlife offences have dropped from over 300 in 1997-98 to under 150 in 2002-03.</p>	<p>a). Park – people relations have improved significantly as a result of the project.</p>
GHNP	Non IEDP site	-	-
KMTR	Non IEDP site	-	-
Kanha	Non IEDP site	-	-

ANNEXURE-II

MENU OF OPTIONS IN ECODEVELOPMENT PRACTICES (BASED ON A STUDY BY THE IIFM, BHOPAL)

Sl. No.	Problems (General for all PAs) Nature of problems	Strategies to tackle problems (General)	Strategies (Special)	PAs where practiced
1.	Large human and cattle population (Dependent on forest)	<ul style="list-style-type: none"> • Alternative employment in collaboration with other departments. • Awareness generation • Alternative livelihood provided • Started stall feeding 	<ul style="list-style-type: none"> • Measures for transboundary cooperation 	Buxa
2.	Grazing	<ul style="list-style-type: none"> • Epidemic control by prophylactic immunization • Alternative employment in collaboration with other departments. 	<ul style="list-style-type: none"> • People sold away cattle 	KMTR
3.	Poverty & Livelihood problems	<ul style="list-style-type: none"> • Trust building efforts • Installation of bio-gas, distribution of pressure cookers LPG 	<ul style="list-style-type: none"> • Micro-credit scheme for women empowerment • Training and tourism centers • Pavitra van around temple • Adoption of school by Forest Department 	Buxa GHNP Nagarhole
4.	Illicit felling & encroachments	<ul style="list-style-type: none"> • Environmental education and awareness generation • Effective management planning 	<ul style="list-style-type: none"> • Boundary pillars created to demarcate park boundary 	Pench / Ranthambh ore, Gir, Periyar
5.	Fire	<ul style="list-style-type: none"> • Fire control • Regular patrolling • Increase of staff strength • Alternative employment in collaboration with other departments. • Maintenance of roads, fire lines, trenches, patrolling tracks etc. 	<ul style="list-style-type: none"> • 6250 kms of 'D' lines & fire lines cleared 	Nagarhole
6.	Poaching	<ul style="list-style-type: none"> • Equipping staff with rifles, wireless & vehicle etc. 	<ul style="list-style-type: none"> • Creating EDC of ex-poachers to stop poaching • A team of anti-poaching watchers created • Formulation of forest protection force • Yearly census of wild animals • Aranya Sena 	Periyar Ranthambh ore Nagarhole Periyar
7.	Human animal conflict crop raiding		<ul style="list-style-type: none"> • Feedback from tourists • Nature Camps 	Ranthambh ore Periyar

8.	Low participation of women	<ul style="list-style-type: none"> • Gender empowerment through training programmes 	<ul style="list-style-type: none"> • Capacity building of the local people 	Gir
9.	People's Participation		<ul style="list-style-type: none"> • Transfer of responsibility: Joint Secretary of EDC • Three types of specialized EDCs: Neighbourhood, user-group & professional groups EDCs. • Pilgrim management and conservation. • 'Mowgli' as a park Mascot and its impact on tourism • Providing a legal basis to Ecodevelopment. • Clear Govt. orders for effective institutionalization • Reciprocal commitments from people 	<p>Pench</p> <p>Periyar</p> <p>Periyar</p> <p>Pench</p> <p>KMTR / Periyar</p> <p>GHNP</p>

ANNEXURE - III

ILLUSTRATIVE, INVENTORY OF POSSIBLE ACTIVITIES UNDER ECODEVELOPMENT IN CONSERVATION AND EXTENSION

BUFFER ZONES OF PROTECTED AREAS (Source: WII)

Note: Depending upon site attributes (climate, terrain, soils, present patterns of farming, fishing, livestock raising, practices of other resource use, status of conservation/degradation, potential for restoration, variety of non-wood forest products, local skills, existing and possible infrastructure etc.) a holistic site-specific package of measures in an appropriate combination most suited to the given site should emerge as a result of a fully participatory planning process, involving local people, NGOs (Is) and government agencies (concerned with land and resource use, and rural development) as conducted by the PA management with the coordinating assistance of district administration.

A. In Forests, grasslands & scrub-savanna lands

- (i) Orientation of forestry operations for the concurrent promotion of biodiversity conservation and meeting resource needs of and generating employment for local people.
- (ii) Joint management of forests, grasslands and scrub-savanna lands with formalized prior agreements for substantial sharing of (even exclusive claim on) usufruct, in return for direct contribution to protection and conservation.
- (iii) Organized collection of important non-wood forest products with measures to ensure long term sustenance of productivity.
- (iv) Cultivation and/or organized collection of medicinal plants, essential oil bearing herbs, mushrooms, pepper, cardamom, other species, tussar silk cocoons etc, which is compatible with other forestry objectives, especially conservation and other local interests.
- (v) Preferential and concessional availability of wood and non-wood resources to local people directly participating in conservation of forest and other resources.
- (vi) Pasture improvement through weed suppression/eradication and enrichment planting with complete or rotational closures.
- (vii) Economic employment generation through weed suppression *e.g.* *Lantana* harvests for pulp, chipboard or basket making on small or cottage industry scale.
- (viii) Providing green fodder at beginning of monsoon by hiring irrigated fields, at least during the 'gestation period' to enable people to take to rotational grazing/ lopping and stall feeding.
- (ix) Rotational lopping and promotion of goatary subject to stall feeding based on sustainable lopping regimes.
- (x) Harvest of green grass and plant fodder during monsoon in designated areas (if necessary, rotational) in the 'conservation' and 'extension' buffer zones.
- (xi) Harvest of grass at the end of monsoon and providing hay in return for cooperation in observance of regulated grazing/lopping.
- (xii) Special consideration to exclusive pastoralists in above measures, backed where necessary by relocation from forests and a viable package of rehabilitation in other near by lands (or forests where non-forest land is unavailable) with green fodder farms (grass and/or fodder trees/plants).

(xiii) Simple water harvesting and catchment treatment works.

(xiv) Preferential employment to locals in all the above works.

B. In private farms

(i) Improved dry farming techniques (improved seed, manure/ fertilizer regimes).

(ii) Efficacious water harvesting (surface and ground water).

(iii) Soil conservation measures.

(iv) Preference to cash crops *e.g.* pulses, oil seeds, spices, cotton, medicinal plants.

(v) Agroforestry.

(vi) Sericulture & horticulture with assured employment through these on one's own land and from other community works, in order to tide over the 'gestation period'.

(vii) *Jhumming areas.*: 1} Partial switch over to agro-forestry and/or cash crops (including medicinal plants and plantation crops) with assured employment through these work on one's own land and on other community works, in order to tide over the 'gestation period'.

(viii) Apiculture.

C. Minor Irrigation

(i) Simple diversion or diversion cum storage type micro-minor irrigation schemes including development of village tanks with preferential employment to local people.

(ii) Lift irrigation schemes using micro-hydel (or grid where available) power or pumpsets, based on rivers, reservoirs and wells.

(iii) Bore well irrigation, where feasible.

D. Animal Husbandry, dairying and wool crafts

(i) Phased reduction in population of scrub livestock and improvement of breed through controlled fertilization of female stock in proper health and age with males of better local breeds, aided by sterilization of scrub bulls.

(ii) Goatary and sheep raising subject to stipulations suggested under ' A ' above.

(iii) Cooperative dairying with marketing support.

(iv) Support to small scale enterprises based on meat and wool.

E. Fisheries

(i) Exclusive rights to organized cooperatives/user groups of local people in all situations, subject to observance of regulations for sustainability and optimal economic productivity - especially, closed areas/seasons and mesh size of fishing nets, and cooperation in ensuring ban on use of explosives and other forms of poaching.

(ii) Marketing support backed by cold storage and appropriate transport arrangements.

- (iii) Special to deltaic mangroves: Sustainable prawn culture without prejudice to natural regeneration in the estuaries.
- (iv) Special to coasts: Sustainable harvests using sail and/or powered boats with appropriate back up to keep away large scale commercial operators exploiting directly. The latter should acquire the catch on reasonable payments from user groups.

F. Ecotourism:

- (i) Obligatory use of local guides (after training) on nature trails, trekking and mountaineering routes.
- (ii) Preferential and assisted allocation of way side lodges on long trekking mountaineering routes to locals, with a back up of micro-hydel power and fodder development to mitigate pressures on forests and pastures in high altitude areas.
- (iii) Development of trekking routes in tracts which have potential for ecotourism.
- (iv) Preferential employment to locals in protected areas and tourism facilities, after education and training as necessary.
- (v) Promotion of local handicrafts as tourist souvenirs with appropriate sale outlets.

G. Infrastructure

- (i) Microhydel/ grid/ solar power for energy for cottage industries and local value addition by processing.
- (ii) Ropeways or trails, especially for goods movement in difficult and remote high altitude areas so as to ensure better economic returns from products exported and economic prices for goods (including food) imported.
- (iii) Wind mills/water mills for food processing and crafts *e.g.* turnery.
- (iv) Piped (gravity) supply, hand pump or open wells for drinking water.

H. Cottage Industry & Handicrafts

- (i) Promotion based on local skills with appropriate technological and infrastructure support.
- (ii) Curing/processing of collected/cultivated products *e.g.* medicinal herbs and essential oil for value addition.
- (iii) Investigation of potential plants/products by pursuing ethno botanical and ethno zoological studies and rich development for consumption/marketing.

Development Projects

- (i) Obligated to have a local orientation so that they become part of local area development and in no case upset local people's resource equations, especially in relation to CPRs. Appropriate compensation/alternatives to be built into project costs.
- (ii) Obligated to compensate by providing inputs into site-specific packages of ecodevelopment measures *e.g.* lift irrigation along reservoir and along the river upstream and downstream.
- (iii) Obligated to allow (where admissible *vis-à-vis* the PA) local people to farm in draw down areas by providing lift irrigation facilities.
- (iv) Preferential employment to locals, if necessary after arranging education. and/ or training.

CENTRALLY SPONSORED SCHEME

PROJECT TIGER

XTH FIVE YEAR PLAN

GUIDELINES

**PROJECT TIGER DIVISION
MINISTRY OF ENVIRONMENT & FORESTS
GOVERNMENT OF INDIA**

RESUME

Project Tiger is a centrally sponsored continuing scheme. This **focussed project** has a **holistic approach** for conserving the **eco-system** in its totality by focussing initiatives on the **flagship species – tiger**.

The project, launched in April 1973 in 9 eco-typical specially designated areas of the country, has a **core – buffer strategy**. While the core area has a completely **wildlife conservation oriented land use**, the buffer is treated as a **multiple use zone** to provide vegetal connectivity for spill over population of wild animals from the core conservation unit. In addition, the buffer zone also facilitates implementation of site specific eco-developmental inputs for eliciting the support of stake-holder indigenous people towards tiger conservation.

The pattern of funding is 100% central assistance for non-recurring items, and 50% for recurring ones. The non-recurring items basically involve structural inputs to improve the field formations and recovering the habitat for fostering a viable population of tigers. The recurring expenditure involves protection, water development, maintenance of forest roads, veterinary care and the like. **During the Xth plan, the guidelines of the Project Tiger remain the same and there is no deviation from the past. However, there is merger of two ongoing schemes viz. Beneficiary Oriented Tribal Development Scheme and Eco-development Scheme around Protected Area.** The eco-development and BOTD activities in end around tiger reserves would be implemented through the funds available under Project Tiger. It is relevant to add that in the two merged schemes also **there is no deviation from the guidelines adopted earlier**, and the merger has been done during the plan period to facilitate administrative convenience for ensuring the necessary complementary effect. **Thus, during the Xth Plan the Project Tiger is a merged scheme of three earlier schemes without any change in the basic character of the schemes.**

Title of the Scheme “PROJECT TIGER”

A PROJECT TIGER

1.1 Description of the Scheme and its objectives

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

The Project has been successfully implemented, and at present there are twenty seven Tiger Reserves in seventeen states, covering an area of 37761 sq. km. The selection of reserves was guided by the need to conserve unique ecosystem/habitat types across the geographic distribution of tigers in the country. Project Tiger is undisputably the custodian of major gene pool of the country and a repository of some of the most valuable ecosystem and habitats for wildlife.

For the purpose of management, tiger reserves are constituted on a ‘**core – buffer**’ strategy. In **core area**, forestry operations, collection of minor forest produce, grazing, human settlement and other biotic disturbances are not allowed and is singularly oriented towards conservation. The **buffer zone** is managed as a ‘**multiple use area**’ with conservation oriented land use, having the twin objectives of providing habitat supplement to the spillover population of wild animals from the core, apart from facilitating site specific eco developmental inputs to stake holder communities. **The main thrust of the project is protection and mitigation of deleterious biotic impacts with a view to comprehensively revive the natural ecosystem in the reserves for fostering a viable population of tigers, co-predators and herbivore.**

Upto 1979-80, the scheme operated as a 100% Centrally financed (Plan) Scheme, but during the VI Five Year Plan i.e., 1980-85, the central funding was reduced to 50% and the State Governments contributed the matching graph. Since then, the pattern of funding has been 100% Central assistance on expenditure of non- recurring items and 50% that on recurring items.

An amount of rupees 172.65 crores has been provided as Central assistance since inception of the Project Tiger (from 1973-74 to 1997-98). The Plan-wise break up of the Central assistance is as follows:

Table-I

Plan	Central assistance to all Tiger Reserves (Rs. in lakhs)
IV Plan (only 1973-74)	2.53
V Plan (1974-75 to 1978-79)	387.25
Roll-ing Plan (1979-80)	63.90
VI Plan (1980-81 to 1984-85)	494.86
VII..Plan	1475.42
1990-91	700.98
1991-92	549.81
VIII Plan	3890.09
IX Plan	7500.00
2002-2003	2200.00
TOTAL	17264.84

1.2 Justification of the Scheme .

This is an ongoing project and is proposed to be continued in the X Five Year Plan. Preservation of threatened species, establishment of a network of protected areas, their maintenance and development have been accorded high priority in the National Wildlife Action Plan. **In pursuance of this and as detailed above, the scheme is proposed to be continued in the X Five Year Plan, alongwith the merger of two existing schemes (eco-development and beneficiary oriented tribal development) with their original components of activities.**

1.3 Description of the manner in which the scheme is proposed to be implemented, including execution and agency thereof :

100% Central assistance would be made available for expenditure on all non-recurring items including the new ones, viz. eco-development, relocation of families living inside Tiger Reserves, use of communication and information technology in crime detection, establishment of GIS based network in all Tiger Reserves, evaluation of tiger habitat in the country with the state of art technology, monitoring of tiger populations in all the tiger range states, fostering eco-tourism activities in the Tiger Reserves, creation of Special Strike Forces, providing compensation to villagers for human deaths/cattle killings/crop damages caused by tigers/panthers/ herbivores around Tiger Reserves, staff welfare measures, replacement and purchase of new vehicles for existing and new Tiger Reserves and providing 'Project Allowance' to all staff of Tiger Reserves. In addition, 100% Central Assistance will also be provided for both nonrecurring as well as recurring expenditure relating to veterinary units, research units, research projects including scholarships to research fellows selected for

specific projects relating to tiger conservation, monitoring and evaluation (to be taken by independent agency) and compensation to the legal heirs of the staff/person killed while performing the official duty related with the Project. The plan recurring expenditure will be borne on the basis of 50:50 by the central and respective state governments, and the executing agency, as in the past, would be the Wildlife Wing of Forest Department of the State concerned. The project is administered through a Directorate (H.Q.) in the Ministry of Environment and Forests, guided by a **Steering Committee** (Project Tiger). The IGF & Director, Project Tiger is the Member Secretary of this Steering Committee. The Project is reviewed biannually by the official/non-official members of the Steering Committee.

Schedule of Programme and Target date of completion :

Project Tiger is an ongoing scheme and will be continued in the Xth Plan. Further continuance would be decided in due course.

2.0 Nature of the scheme :

This is a centrally sponsored (Plan) scheme. As stated earlier, 100% Central assistance would be provided for non-recurring expenditure and 50% Central assistance would be provided for recurring ones. The major non-recurring activities are construction of buildings, development of communication - road, wireless etc., purchase of various equipments, scientific items, protections, development of water facilities, eco-development works, shifting of villages and cattle, miscellaneous tools, development of veterinary research and compensation to the legal heirs of staff/person killed while performing official duty of Tiger Reserve, and any other non-recurring item specific to the Tiger Reserves. The recurring activities are allowance of the staff, habitat improvement, salt lick, water facilities, fire protection, maintenance of various items, publicity and extension, protection measures and legal assistance for dealing with wildlife offences and any other item, recurring in nature, specific to the Tiger Reserve.

Total Outlay (Non-recurring and Recurring) - broad outline and year-wise phasing :

The approved outlay under the Scheme during IX Plan was **Rs. 75.00 crores**. This outlay, however, is considered insufficient considering the magnitude of problems and additionalities like eco-development and relocation of villages, apart from the fact that about four more new areas are proposed to be included under the Project. This will require a budget of Rs. 150.00 crores during X Plan. The main thrust of Project Tiger, as in the past, is protection and mitigation of deleterious biotic impacts with a view to comprehensively revive the natural eco system in the reserves for fostering a viable population of tigers, co-predators and prey base. These areas would serve as '**source**' for radial dispersal of genes.

JUSTIFICATION :

During the VIII Five Year Plan, a budget allocation of Rs.40.00 crores was provided to the Centrally Sponsored Plan Scheme 'Project Tiger', for managing 23 Tiger reserves. Due to the escalation in wage rates and cost of maintenance of existing infrastructure, apart from inclusion of 4 new Tiger Reserves, this was enhanced to Rs.75.00 crores during IX Plan. With the merger of two schemes, (Eco-Development and Beneficiary Oriented Tribal Development) the total requirement during X Plan period would be Rs.150.00 crores.

The year-wise phasing of total outlay (after merger of Ecodevelopment/ BOTD Schemes) during the X plan period would be as follows:

Year	Proposed amount (including NE) (Rs. in crores)
2002-02	24.00
2003-04	30.00
2004-05	30.00
2005-06	32.00
2006-07	34.00
TOTAL	150.00

2.2 Achievements>Returns expected - other economic implications :

The Project would be completing three eventful decades shortly. It has been acclaimed internationally as one of the greatest conservation ventures in modern times, not only for putting the tiger on an assured course of recovery from the brink of extinction, but more for saving the floral and faunal genetic diversity in some of our unique and endangered wilderness areas. The adoption of a total ecosystem approach has resulted in an overall improvement of habitat, an increase in number of wildlife with better dispersal leading to efficacious utilisation of habitat in the tiger reserves.

(a) Employment Generation :

The activities under the Project generate employment for both regular personnel and daily wagers. Among the regular personnel are senior technical officers and field professionals besides staff for protection and enforcement. Both protection and developmental activities under the project are labour intensive and generate considerable employment for rural communities in the interior forest areas. The scheme, thus, provides substantial employment opportunities.

(b) Indirect Benefits :

Apart from direct employment opportunities, indirect benefits like arresting of erosion, enrichment of water regime, regeneration of grass and ground flora provide are useful to animals and communities in neighborhood.

B. MERGED COMPONENTS OF ECO DEVELOPMENT

To ameliorate the hardship faced by the villagers living in and around National Parks and Sanctuaries due to curtailment of their access for grazing and collection of fuelwood, bamboo, fodder, MFP, etc., due to the setting up of these protected areas, a new Centrally Sponsored Scheme, 'Eco development around National Parks and Sanctuaries including Tiger Reserves', was launched during the year 1991-92. The package of programmes designed to meeting requirements of different areas to be implemented under the scheme, demonstrate the concern of the protected area managers for the socio-economic development of the fringe or buffer zone villages, which would result in greater cooperation of the indigenous communities in conservation and management of wildlife.

1. THE SELECTION OF TARGET AREAS:

Considering the wide-ranging problems the scheme is designed to address eco development for all villages and settlements located on the fringes of each Tiger Reserve. However, in view of limited availability of funds and the capacity of wildlife managers to operate the scheme, priority would be given to those Tiger Reserves where man-animal conflicts and confrontation between the villagers and the protection staff have reached an alarming stage and immediate action is required to remedy the situation. Some of the conditions for deciding the extent of an urgency could be:

- I) Tiger Reserves from where extremist engineered disturbances have been reported.
- ii) Areas subject to chronic droughts, floods, fires are other natural calamities.
- III) Areas where the buffer zones are either non-existent or are in a badly degraded state and are unable even to partly support the demand of the local villagers for fuelwood, fodder, etc.
- IV) Villages shifted out of national parks and resettled particularly outside the core area of a tiger reserve .

A question has arisen whether eco development should be extended to villages inside national parks, keeping in view the policy to resettle them outside for obviating man-animal conflicts. There is an apprehension that extending developmental benefits to these villages would provide a disincentive against shifting. While such villages, as a general principle, should not be covered under the scheme, exceptions must be made in those cases where practical problems in shifting a village exist, while the need for harmonizing the relations of the villagers with the park staff needs to be given a high priority. This can be decided on the basis of prevailing conditions, including the constraints of enforcing the legal requirements of translocation.

2. Activities and programmes under eco development

The initiatives should be designed keeping in view the primary objectives of satisfying basic needs of local villagers, reducing their dependency on Tiger Reserve resources and improving productivity of the fringe area. In the buffer zones of Tiger Reserves, there is considerable scope for innovation in designing programmes of ecodevelopment tailored to the needs of specific areas. A survey to ascertain the present socio-economic status of villages or clusters of villages around each Tiger Reserve, including basic needs and the nature and extent of conflicts with wildlife management, would be necessary for designing the ecodevelopmental programmes. The NWDB publication “Microplanning: A Tool for Social Forestry Implementation” is a useful reference for this purpose. However, certain activities and programmes of generic nature, which will be the basic components of ecodevelopment, can be taken up rightway while the survey is being conducted. These programmes can be substantially supplemented and fine-tuned after results of the survey are known. Thus the ecodevelopment programmes would be carried out in two phases as follows:

PHASE I ACTIVITIES

These are basic ecodevelopment programmes and will comprise of :-

- I) Formation of Eco development Committees
- II) Survey and preparation of management plans, village level micro plans with participatory planning.
- III) Silvipastoral development.
- IV) Raising of close-spaced fuelwood and fodder plantations of fast growing indigenous species.
- V) Setting up of livestock veterinary centers.

- VI) Setting up of fixed/mobile dispensaries including vaccination/ family planning clinics.
- VII) Providing safe drinking water.
- VIII) Fixing of electrical /solar street lights.
- IX) Supply of improved chullas, solar cookers and gobargas plants.
- X) Erection of physical barriers, including electric fencing to protect crops, etc. from wild animal depredation.
- XI) Soil conservation measures like gully plugging terracing of cultivated fields and the like.
- XII) Setting up of small irrigation dams/anicuts.
- XIII) Training of staff, volunteers and village-level workers in ecodevelopment and related activities/techniques.
- XIV) Purchase of vehicles and equipments directly concerning the above activities and construction of buildings.

B) PHASE II ACTIVITIES

- I) Insurance of life, crops and property against animal depredation.
- II) Improved dryland farming techniques.
- III) Improvement soil productivity, soil conservation and crop rotation.
- IV) Horticulture suited to local conditions including cultivation of medicinal plants and other MFPs.
- V) Farming of domestic animals like pigs and poultry.
- VI) Apiculture, sericulture and pisciculture.
- VII) Setting up of cottage industries based on appropriate technology.
- VIII) Providing facilities for marketing of various produce.
- IX) Education and recreation facilities aimed at explaining the role of the protected areas and wildlife management in general in maintaining land productivity, soil fertility, etc.
- X) Study of culture and traditions of local communities to establish the link between their lifestyles and maintenance of ecological equilibrium.

Additional innovative activities, as an outcome of the socio-economic survey, can also be taken up with the prior approval of Government of India.

3. IMPLEMENTATION AGENCY

The scheme will be implemented by the wildlife wings of the State Forest Departments through the officers-in-charge of Tiger Reserves, where ecodevelopment would be carried out. Because of the wide range of activities involved, it would be essential to associate different development departments, viz. animal husbandry, horticulture, primary health, agriculture extension, soil conservation, fishery, tribal welfare, small industries, etc. While in selected areas experts from such departments may be required to be taken on deputation for planning/implementing the ecodevelopment programmes, it will be important to ensure that these departments are actively associated with the scheme. It will therefore be necessary to constitute a District Level Coordination Committee under the District Collector/Magistrate, with the Deputy Director of the Tiger Reserves as the member secretary. This would also facilitate sectoral integration and pooling of resources.. The committee should include representatives of the cooperating departments, the NGOs and the concerned *Gram Panchayat* leaders. The committee should meet at least once in two months and the minutes of the meetings should be included in the proposals for central assistance under the scheme. The State Government may consider payment of a modest honorarium to the committee members for attending the committee meetings and the expenditure on this account can be charged to the scheme.

Since the ecodevelopment scheme is primarily concerned with the welfare of forest-dwelling communities, it will be necessary to involve NGOs with proven track record in rural development programmes in the scheme, as also in monitoring the inputs. Socio –economic surveys, popularising smokeless *chullas* or running of education centers can be directly entrusted to them after a MOU for such collaboration. It would be advisable to have the names of participating NGOs approved by the State Governments. The above guidelines will not replace the Codification/Resolution adopted by State Governments for involving stake holder communities in conservation, but should be used in a complementary manner.

4. PLANNING FOR ECODEVELOPMENT

As ecodevelopment is an integral part of Tiger Reserve development, it is necessary that activities under the scheme, like other activities for wildlife management, are planned adequately both on a perspective (5-10) years) and on an annual basis. It may be useful to add a chapter on ecodevelopment in the management plan of the Tiger Reserve, and following could be the contents of this chapter:-

ECO- DEVELOPMENT

I. BASIC INFORMATION:

- i) Names of villages with populations and live stock population, proximity to protected areas.
 - ii) Economic status of the residents, their main sources of livelihood.
 - iii) General conditions of the buffer areas, e.g. extent of degradation and capacity to meet the resource demands of local communities.
2. An analysis of the demand of local communities for fuelwood, fodder, bamboos, MFP, etc. and the local availability of these resources. This will also cover the extent of reduction in availability of these resources due to establishment of the Tiger Reserve.
 3. The extent and nature of conflicts between wildlife management and the villagers. There could be a different account for each village. Incidents of serious damage to life and property due to animal depredation, should be listed.
 4. Past attempts at ecodevelopment with analysis of their success.
 5. List of activities/programmes proposed for each village or cluster of villages, with budget estimated, yearwise.
 6. Development agencies involved in implementing the programmes and the mechanisms to be set up to ensure involvement and coordination of such agencies.
 7. NGOs associated with the programmes and nature of collaboration envisaged with them. A list of such NGOs should be appended as also a copy of the agreement to be entered with the NGOs.
 8. Method/mechanism for monitoring the ecodevelopment programmes.

The scheme was initiated during 1991-92 as an Annual Plan Scheme and was continued during VIII plan and IX Plan. It is proposed to merge the scheme during X Plan period along with Project Tiger Scheme for Tiger Reserves areas, with out changing the basic character.

II **Financial Implication:**

Nature of the scheme

This is a Centrally Sponsored Scheme to be operated on the basis of 100% Central Assistance for approved items of expenditure.

(b) Total outlay – broad outline and year wise phasing:

The approved outlay under the scheme during IX Plan was Rs 40.00 crores. The year wise expenditure of total outlay during the IX Plan period and projection for X Plan are as follows:

(Rs. in Crores)

IX Plan Expenditure		X Plan projection (only for Ecodevelopment Component)	
Year	Amount	Year	Amount
1997-98	Rs 4.34	2002 - 03	Rs. 4.00
1998-99	Rs 6.34	2003 – 04	Rs. 4.00
1999-2000	Rs 7.99	2004 – 05	Rs. 4.50
2000-01	Rs 9.99	2005 – 06	Rs. 5.00
2001-02	Rs 15.35	2006 - 07	Rs. 5.00
Total	Rs 54.01	Total	Rs. 22.50

(c) **Achievement / returns expected – other economic implications :**

The scheme is meant to serve the purpose of reducing dependency of indigenous stakeholder communities dwelling on the fringes of Tiger Reserve and ensuring their socio-economic welfare through ecodevelopment to elicit support for conservation.

C. MERGED COMPONENTS OF BENEFICIARY ORIENTED TRIBAL DEVELOPMENT

Beneficiary Oriented Scheme for Tribal Villages of Project Tiger Areas, National Parks and Wildlife Sanctuaries (Centrally Sponsored).

a) **Description of the Scheme:**

There are 88 National Parks and 490 wildlife sanctuaries in the country. Out of these, 27 Parks/Sanctuaries have been brought under Project Tiger. Management of these areas envisage exclusion of biotic interference, which could be in the form of habitations, domestic livestock, agriculture and other land-use practices. Project Tiger areas and National Parks should have the least human interference, whereas in wildlife Sanctuaries this may be permitted to some extent. Nevertheless, it remains a fact that for safeguarding the precious gene pool, concerted measures have to be taken to reduce human interference which inevitably involve relocation of existing habitations. In the past, 41 villages have been relocated from Tiger Reserves. However, 125 villages yet remain to be relocated from these areas.

Relocation of villages involves resettlement and socio- economic rehabilitation of the affected persons. It envisages identification of villages to be affected by relocation plans of Project Tiger areas, resettlement of displaced families through support for development of agricultural land, provision of building material, social and economic rehabilitation by providing necessary infrastructure e.g., approach road, drinking water facilities, cattle ponds, fodder and fuelwood.

Objectives :

Rehabilitation of tribal and other families affected under relocation plans of the Project Tiger areas.

b) Components of the Scheme:

Important components of the scheme are listed below: -

1. Identification of villages to be relocated and affected families:

This will be done by the respective State/UT Governments according to the priority given to such measures in the management plans.

2. Identification of sites for relocation:

The sites to be selected for resettlement of the displaced persons will be identified by the States. Ordinarily revenue lands available with the State/UT Governments will be availed for this purpose. However in case no such lands are available, degraded forest areas or fringes of forests could be identified for this purpose. This will inevitably involve seeking prior approval of the Central Government under the Forest (Conservation) Act, 1980 which must be obtained well in advance.

3. Preparation of the Rehabilitation Projects:

The State/UT Governments will pose the Scheme in the form of a project which will contain complete details of the rehabilitation, time frame for its implementation and the financial outlay. The projects will be considered by the Ministry of Environment & Forests and financial allocation will be made for certain items of works, subject to availability of funds.

4. Financial assistance will be provided for the following items:

(i) Land development:

Development of the land assigned to the displaced persons will exclude cost of acquisition, if any. The assistance will be limited to 2 hectares per family at the rate of Rs. 10,000 per hectare for land development. This item is considered essential owing to the fact that displaced persons will often occupy uncultivated land. The net amount admissible would be worked out after deducting the monetary compensation, if any, payable to the affected persons. The amount, however, will not be paid to the beneficiaries, instead, it will be utilised by the Project implementing agency for development of the land to make it suitable for agriculture.

ii) **Building material for construction of houses:**

Requisite material for house construction will be provided to the affected families and the cost will be debited to the Scheme. Similarly, labour charges will be paid to the beneficiaries. Total amount to be charged to the Scheme for providing building material and labour should not exceed Rs. 10,000 per family.

iii) **Transport of household goods:**

Cost of transport of household goods will be borne under the Scheme but the amount should not exceed Rs. 1000/- per family.

iv) **Approach road:**

Approach road to the newly rehabilitated villages would be provided under the scheme. The admissible expenditure on this should not exceed Rs. 50,000 per village, which may ordinarily suffice for a length of about 2 Km..

v) **Drinking water facilities:**

This will be provided by sinking an open well or any other means. The admissible expenditure will be limited to Rs. 50,000 per village.

vi) **Cattle pond/tank:**

A village cattle pond will be established at a cost not exceeding Rs. 30,000/- per village.

vii) **Woodlots and fuel reserves:**

For meeting domestic needs of the displaced persons especially in respect of household utility timber, bamboo and firewood, woodlots will be raised under the scheme. Wherever land is scarce, such plantations will be raised in about 50 hectares with an input of Rs. 5,000/- per hectare. However, in some cases, where relocation is to be done on fringes of forests, these commodities could be provided from existing forests with comparatively smaller investment.

viii) **Pasture and fodder development:**

Measures as suggested under item (vii) above will also be taken for development of pastures and fodder. Under intensive cultivation at least 100 ha would be needed for a village of about 50 families. The assistance provided would be Rs. 5000 per hectare. In some cases, especially when resettlement is to be done on fringes of forest it may be possible to meet part of fodder needs from adjoining areas. Nevertheless it would be desirable to develop exclusive fodder reserves for resettled families to avoid social conflict between them and the local inhabitants.

a) **Method of implementation:**

The scheme will be implemented by respective State/Union Territory Forest Departments through their Wildlife Organisation, by adopting a Project Approach. The following phases are identified for this purpose:-

- (i) Phase I- Identification of the Project Tiger area from which relocation is to be done, number of villages and families affected, socio-economic survey of household and infrastructural requirements, selection of site for rehabilitation, formulation of a project proposal which will contain complete details of the activities to be undertaken, organisational support, and the period required for completion of different activities.
- (ii) Phase II – Examination of the project proposals by Government of India, financial sanction thereto, implementation of the project by the State/Union Territory Forest Departments.
- (iii) Phase III – Appraisal and evaluation of the scheme or further continuance, modification and the like.

In Government of India, the scheme will be coordinated and monitored by the Project Tiger Division, Ministry of Environment & Forests.

b) ***Justification for the scheme***

The scheme has been under implementation since 1989-90. The expenditure incurred during the IX five Year Plan is as given below:

Total approved outlay for IX Plan : Rs. 19.00 cr.

YEAR	OUTLAY
1997-98	: Rs. 135.00 Lakhs
1998-99	: Rs. 350.00 Lakhs
1999-2000	: Rs. 370.00 Lakhs
2000-01	: Rs. 250.00 Lakhs
2001-02	: Rs. 400.00 Lakhs

The details and funds released during the IX plan and the projection for Xth plan are as below:

(Rs. in Crores)

IX Plan Expenditure		X Plan projection (only for BOTD Component)	
Year	Amount	Year	Amount
1997-98	Rs 1.10	2002 - 03	Rs. 2.00
1998-99	Rs 3.50	2003 – 04	Rs. 2.00
1999-2000	Rs.2.69	2004 – 05	Rs. 2.50
2000-01	Rs 3.10	2005 – 06	Rs. 2.00
2001-02	Rs 4.00	2006 - 07	Rs. 2.00
Total	Rs . 14.39	Total	Rs. 10.50

2. Financial implication of the proposal.

Since the Scheme would be site specific and need based, rigid stipulations for outlays under each item are therefore not desirable. The admissibility of expenditure needs to be restricted to Rs.1,00,000/- per family.

Out of the Rs. 1.00 Lakhs admissible for a family, the break up is as follows:

(Amount in Rs.)

a)	Land Development (2 Hec.)	36,000
b)	Building materials per family	36,000
c)	Transport of Household goods per family	1,000
d)	Community facilities commuted per family	9,000
e)	Wood lot and fuel reserves per family	8,000
f)	Pasture and fodder plantation per family	8,000
g)	Cash incentives for shifting	1,000
h)	Miscellaneous activities	1,000
	Total	1,00,000

20% variation in each item subject to the total ceiling cost may be approved when demanded, site specific requirements.

To,

Field Director
(All Tiger Reserves)

SUBJECT: Regulation of Tourist Visitation in Tiger Reserves

Sir,

As you are aware, there is considerable tourist influx (both inland and foreign) in many of our Protected Areas and Tiger Reserves, which necessitate regulation of such visitation in the interest of minimizing the biotic disturbance to wild animals and their habitat. It must be borne in mind, ecotourism should be fostered in the right perspective in these areas, so that there is no compromise or trade –off in wildlife interests, since our Tiger Reserves are ecotypical repositories of valuable gene pool. Hence, the following may be ensured in this regard:

- The tourist visitation should be regulated as per the **carrying capacity** of the area.
- In place of open gypsies and smaller vehicles, medium sized buses, with a closed body and sliding windows, may be used for park excursions. This will minimize the risk of close encounters with wild animals, apart from reducing the number of vehicles inside the park at any point in time .
- A minimum mandatory distance of at **least 500 meters** should be maintained between two vehicles plying on the same road.
- A minimum mandatory distance of **30 meters** should be maintained by tourist vehicles while spotting a tiger or any other wild animal.
- The route guides should be more professionally trained and penalty should be imposed on visitors in case they violate park rules.

Further, a model calculation of the Tourist Carrying Capacity is also appended for ready reference, which is fairly robust and can be computed in a site-specific manner by collecting some basic field data. It is requested, this computation may please be done for your Reserve and this Ministry may be apprised accordingly. Since a certain amount of risk is always involved in jungle excursions despite all precautions, a standardized ‘Indemnity Bond’ may also be prescribed indemnifying the park authorities from litigation / arbitration which may arise on account of accidents suffered by tourists during park round. All due formalities in this regard may be completed before the tourists are allowed entry into the Tiger Reserve. Under no circumstances tourist excursions should be allowed during the night. It goes without saying, apart from causing immense disturbance to wild animals, such ventures are extremely risky. It is also reiterated, no tourist facilities should be created in the ‘core Zone’ of a Tiger Reserve.

Yours Sincerely,

Dr Rajesh Gopal
(IGF & DIRECTOR, PT)

Copy to: All Chief Wildlife Wardens

MODEL CALCULATION

KANHA TIGER RESERVE

(a) Visitation Data

(Average of last 5 years)

Visitors (Indian) : 42971.8

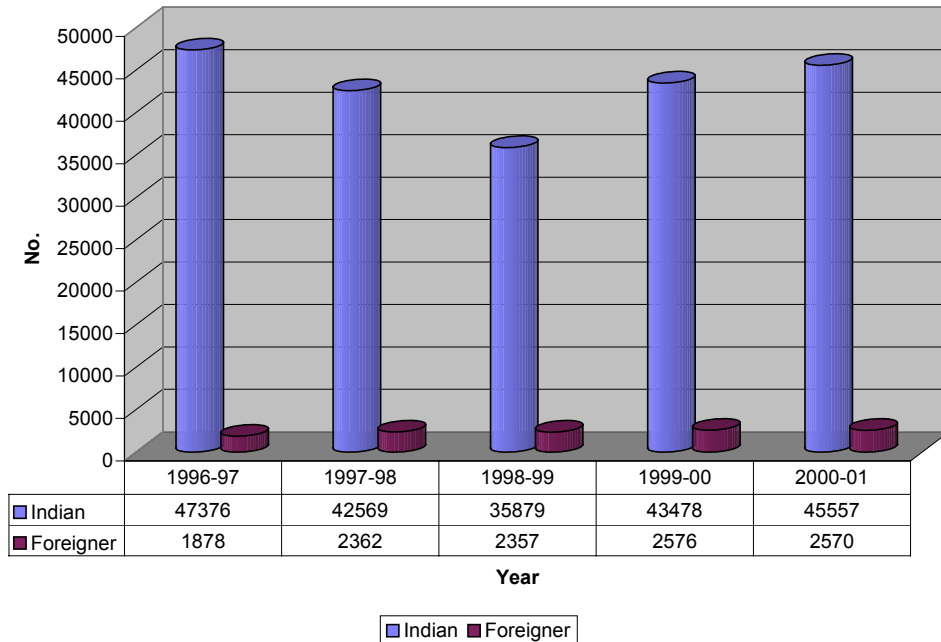
Visitors (Foreign) : 2348.6

Total: : 45320.4

Number of tourist vehicles per day (average) = 50

(b) Carrying Capacity Computation

**Total No. of Tourists Visiting in the Park
(During the last 5 years)**



i. Physical Carrying Capacity (PCC)

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

- ✓ Only vehicular movements permitted on forest roads, hence road length is more relevant than area
- ✓ “Standing area” is not relevant, but closeness between vehicles is important
- ✓ There is a required distance of at least 500 m. (½ km.) between 2 vehicles to avoid dust (2 vehicles / km.)
- ✓ At least 3½ km. hours are needed for a single visit
- ✓ The PA is open to tourists for 9 months in a year and 9 hours per day
- ✓ Linear road length (for tourists) = 283 km.

$$\text{Rotation Factor (Rf)} = \frac{9 \text{ hours}}{3.5 \text{ hours}} = 2.6$$

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

ii. Real Carrying Capacity (RCC)

☞ Road Erosion

$$\begin{aligned} \text{Total Road Length} &= 283 \text{ km. (Mt.)} \\ \text{Medium erosion risk} &= 50 \text{ km. (weightage factor = 2)} \\ \text{High erosion risk} &= 40 \text{ km. (weightage factor = 3)} \\ M_1 &= 50 \times 2 + 40 \times 3 = 100 + 120 = 220 \text{ km.} \end{aligned}$$

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

☞ Disturbance to Wildlife

$$\begin{aligned} \text{Barasingha} &= Cf_1 = 1/9 \times 100 = 11.1 \% \\ \text{(1 month)} & \end{aligned}$$

$$\begin{aligned} \text{Chital} &= Cf_2 = 2/9 \times 100 = 22.2 \% \\ \text{(2 months)} & \end{aligned}$$

$$\begin{aligned} \text{Tiger} &= Cf_3 = 2/9 \times 100 = 22.2 \% \\ \text{(2 months)} & \end{aligned}$$

Overall corrective factor for disturbance of wildlife in Kanha National Park =

$$Cf_w = Cf_1 + Cf_2 + Cf_3 = 11.1 + 22.2 + 22.2 = 55.5 \text{ or } 55\%$$

☞ Temporary closing of sites

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

$$\text{RCC} = \text{PCC} \times \frac{100 - Cf_e}{100} \times \frac{100 - Cf_w}{100} \times \frac{100 - Cf_t}{100}$$

$$1472 \times \frac{100 - 78}{100} \times \frac{100 - 55}{100} \times \frac{100 - 5.5}{100}$$

$$1472 (0.22 \times 0.45 \times 0.95)$$

$$138.4 \text{ or } 138 \text{ visits / day}$$

iii. Effective Permissible Carrying Capacity

(MC = Managerial Capacity = 40%)

$$\text{EPCC} = \text{RCC} \times \text{MC}$$

$$138 \times 0.40 = 55.2 \text{ or } 55 \text{ vehicles / day}$$

To,

Chief Wildlife Wardens
(All States)

Sir,

As you are kindly aware, the guidelines for execution of Project Tiger has laid down mandatory provisions for State Governments to review, from time to time, the progress and implementation of the project with a view to evaluate its performance. In this regard, a directive was sent from this Ministry vide letter No. F.No. 1-6 / 2001-PT dated 10th September, 2001, for constituting a 'Monitoring and Evaluation Committee' at the level of State Governments, in consultation with identified Institutes / Centres of excellence in states. The action taken in this regard from your end has not been communicated to this Ministry so far.

For close monitoring at the level of Government of India, the formats for monthly, half yearly and annual reports are appended for ready reference. It is requested that the information sought in these formats may be sent to this Ministry as below:-

1. Monthly Report - by the 20th of the month following to which it relates.
2. Half Yearly Report - within 2 months of the expiry of the half year to which it relates.

With the Second Half Yearly Report an analytical report should also be submitted which should contain a comprehensive assessment of the project, highlighting the problems, current issues and achievement of physical and financial targets and bottlenecks.

3. Annual Report being - 1st week of June following the financial year reported upon.

It is requested that the Field Directors may please be directed for needful action and compliance in this regard.

Yours sincerely,

(Dr. Rajesh Gopal)
IGF & Director, Project Tiger

PROJECT TIGER

**MONTHLY REPORT FOR THE MONTH
OF**

1. State
2. Tiger Reserve
3. Date of initiation
4. Plan Provision
5. Provision for the current year

Sl. No.	Item of works	Financial Target for The year (Rs.)	Achievements during the month (Rs.)	Cumulative progress till the end of month	Remarks
1	2	3	4	5	6

6. Works
 - 6.1 Capital
 - 6.1.1 Buildings
 - 6.1.2 Communication
 - 6.1.2.1 Roads
 - 6.1.2.2 Wireless
 - 6.1.3 Equipment, Scientific and others including arms and ammunitions
 - 6.1.4 Water development works
 - 6.1.5 Cost of shifting villages
 - 6.1.6 Cost of shifting cattle
 - 6.1.7 Miscellaneous – Tools
 - 6.2 Works (Recurring)
 - 6.2.1 Staff including special Protection staff
 - 6.2.2 Habitat Manipulation
 - 6.2.2.1 Details of works
 - 6.2.2.2 Planning
 - 6.2.2.3 Improvement of pasture land
 - 6.2.3 Supplementary feeding
 - 6.2.3.1 Artificial salt lick

1	2	3	4	5	6
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6.2.4 Water facilities

6.2.4.1 Transportation of water

6.2.4.2 Running of pumping sets

6.2.4.3 Desilting of wells

6.2.4.4 Dugouts

6.2.4.5 Water trough

6.2.5 Fire protection

6.2.5.1 Water Tower

6.2.5.2 Layout of fire lines

6.2.5.3 Fire fighting squads

6.2.6 Maintenance

6.2.6.1 Buildings

6.2.6.2 Livestock

6.2.6.3 Motor Vehicles

6.2.6.4 Fire lines

6.2.7 Compensation to cattle owners

6.2.8 Veterinary care

6.2.9 Research

6.2.10 Training

6.2.10.1 Officers

6.2.10.2 Field staff

6.2.11 Publicity and extension

6.2.12 Unforeseen and miscellaneous

7. Difficulty - bottlenecks, Additional remarks

Field Director

PROJECT TIGER
HALF YEARLY REPORT REPORT

ENDING SEPTEMBER

1. State
2. Tiger Reserve
3. Date of initiation
4. Plan Provision
5. Provision for the current year

Sl. No.	item of Works	TARGETS							
		Physical			Financial			Remarks	
		Annual ½ Yearly	Achievements ending Sept.	Deficit excess	Annual ½ Yearly	Achievements ending Sept.	Deficit excess	State Sector	
		1	2	3	4	5	6	7	8

6. Works
 - 6.1 Capital
 - 6.1.1 Buildings

Sl. No. Item of

	Works									
	1	2	3	4	5	6	7	8	9	10
6.1.2	Communication									
6.1.2.1	Roads									
6.1.2.2	Wireless									
6.1.3	Equipment, scientific and others including arms and ammunitions									
6.1.4	Water development works									
6.1.5	Cost of shifting villages									
6.1.6	Cost of shifting cattle									
6.1.7	Miscellaneous – Tools									
6.2	Works (Recurring)									
6.2.1	Staff including special Protection staff									
6.2.2	Habitat Manipulation									
6.2.2.1	Details of works									
6.2.2.2	Planning									
Sl. No.	Item of									

Works

1 2 3 4 5 6 7 8 9 10

6.2.2.3 Improvement of pasture land

6.2.3 Supplementary feeding

6.2.4 Water facilities

6.2.4.1 Transportation of water

6.2.4.2 Running of pumping sets

6.2.4.3 Desilting of wells

6.2.4.4 Dugouts

6.2.4.5 Water trough

6.2.5 Fire protection

6.2.5.1 Water tower

6.2.5.2 Layout of fire lines

6.2.5.3 Fire fighting squads

6.2.6 Maintenance

6.2.6.1 Buildings

Sl. No. Item of

Works

1	2	3	4	5	6	7	8	9	10
---	---	---	---	---	---	---	---	---	----

6.2.6.2 Livestock

6.2.6.3 Motor Vehicles

6.2.6.4 Fire lines

6.2.14 Compensation to cattle owners

6.2.15 Veterinary care

6.2.16 Research

6.2.17 Training

6.2.10.1 Officers

6.2.10.2 Field Staff

6.2.18 Publicity and extension

6.2.19 Unforeseen and miscellaneous

7. Manpower employed

8. Bottlenecks if any or additional remarks

9. No. of cases of illicit grazing, hunting, forest cutting and others
- | | | | | |
|--|----------|---|------------|----------|
| | Detected | - | Challenged | Findings |
|--|----------|---|------------|----------|
10. No. of fires controlled - Area burnt Loss
11. Loss of any wild animal - Cause Action taken
12. A brief narrative about evaluation of the Field Director about progress of the Project.
- | | | | |
|--|--|----------------|------|
| | | Field Director | Date |
|--|--|----------------|------|
13. Remarks of the Chief Conservator of Forests
- | | | | |
|--|--|--------|------|
| | | C.C.F. | Date |
|--|--|--------|------|

PROJECT TIGER
HALF YEARLY REPORT-II
ENDING MARCH

1. State
2. Tiger Reserve
3. Date of initiation
4. Plan Provision
5. Provision for the current year

Sl. No.	item of Works	TARGETS													Remarks	Yearly	of
		Physical						Financial									
excess	achieved	½ achieve-	Deficit for the year	Net to be target	Actual yearly	Cumulative or excess	Annual achieved	½ achieve-	Deficit for the year	Net to be target	Actual Sector	Cumulative	Annual	State			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16		

6. Works
 - 6.1 Capital
 - 6.1.1 Buildings
 - 6.1.2 Communication

Sl. No.	Item of Works	1	2	3	4	5	6	7	8	9	10

- 6.1.2.1 Roads
- 6.1.2.2 Wireless
- 6.1.3 Equipment, scientific and others including arms and ammunitions
- 6.1.4 Water development works
- 6.1.5 Cost of shifting villages
- 6.1.6 Cost of shifting cattle
- 6.1.7 Miscellaneous – Tools
- 6.2 Works (Recurring)
 - 6.2.1 Staff including special Protection staff
 - 6.2.2 Habitat Manipulation
 - 6.2.2.1 Details of works
 - 6.2.2.2 Planning
 - 6.2.2.3 Improvement of pasture land

Sl. No.

Item of Works

1	2	3	4	5	6	7	8	9	10
---	---	---	---	---	---	---	---	---	----

6.2.3 Supplementary feeding

6.2.3.1 Artificial salt lick

6.2.4 Water facilities

6.2.4.1 Transportation of water

6.2.4.2 Running of pumping sets

6.2.4.3 Desilting of wells

6.2.4.4 Dugouts

6.2.4.5 Water trough

6.2.5 Fire protection

6.2.5.1 Water tower

6.2.12.1 Layout of fire lines

6.2.12.2 Fire fighting squads

6.2.13 Maintenance

6.2.13.1 Buildings

Sl. No.

Item of
Works

1	2	3	4	5	6	7	8	9	10
---	---	---	---	---	---	---	---	---	----

6.2.13.2	Livestock			
6.2.13.3	Motor Vehicles			
6.2.13.4	Fire lines			
6.2.7	Compensation to cattle owners			
6.2.8	Veterinary care			
6.2.9	Research			
6.2.10	Training			
6.2.10.1	Officers			
6.2.10.2	Field Staff			
6.2.11	Publicity and extension			
6.2.12	Unforeseen and miscellaneous			
7	Manpower employed			
8	Bottlenecks if any or additional remarks			
9	No. of cases of illicit grazing, hunting, forest cutting and others			
	Detected	-	Challenged	Findings
10	No. of fires controlled	-	Area burnt	Loss

- | | | | | | |
|----|---|---|--------|----------------|------|
| 11 | Loss of any wild animal | - | Cause | Action taken | |
| 12 | A brief narrative about evaluation of the Field Director about progress of the Project. | | | | |
| 13 | Remarks of the Chief Conservator of Forests | | | Field Director | Date |
| | | | C.C.F. | | Date |

PROJECT TIGER

..... TIGER RESERVE

ANNUAL REPORT

Introduction

Brief narrative of the Tiger Reserve
Background information
Objective – Justification

Narrative summary of targets proposed

Narrative summary of targets achieved

Highlight of project achievements, performance in the State Sector.

<u>Protection</u>	from poachers	Mention cases detected
All over the project area	from wood poachers	and their results
preventive	from fire -	Give narrative of fire accidents, loss and control measures applied both and control.
	from grazing of-domestic cattle	Shifting of village Shifting of cattle
	from other human interference	---
	Against diseases -	Veterinary care provided
	Accidents -	Veterinary care provided

<u>Construction Sector Works</u>	Building	Central Sector	State
	Communication Roads Water		

<u>Facilities for animals Sector</u>	-	Water-Construction works and achievements	State
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Sector	Food	Canopy development	State
		Artificial feeding Salt Licks Pasture Development	
	Shelter	Canopy manipulation	

Research

Progress of Research Brief of each scheme	Research findings Papers published	Give brief summary in the Appendix
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New designs made

Training

Narrative

Publicity and extension works Extensions, lectures, cinema shows

Men employed

Visitors -

Scientists With brief of remarks remarks
V.I.P.s in the visitor's book
Tourists

Evaluation

By the Field Director

By the Chief Conservator of Forests

Appendix

(1) Statement of 11 half yearly report
(2) Photographs maps

Census results,
Other material

List of animals killed or poached

No. F.1-6/2001-PT
Government of India
Ministry of Environment & Forests
(PROJECT TIGER)

Annexe No. 5, Bikaner House
Shahjahan Road, New Delhi-110011
Date the 11th September, 2001

To

The All Field Directors of
Tiger Reserves.

Subject: Mortality Survey.

Sir,

The mortality survey in a habitat is important to ascertain the age/sex specific natural mortality of wild animals. You are therefore requested to kindly issue suitable instruction to the field staff to collect all evidences of such mortality (mandibles/skulls) found on the forest floor every six months. A compiled information in this regard with categorisation (Cervid/Bovid/Field/Canid) may be subsequently sent to this office.

Yours sincerely,

DR. RAJESH GOPAL
IGF & DIRECTOR (PROJECT TIGER)

Copy To: The Chief Wildlife Wardens of States having Tiger Reserves for information and necessary action.

DR. RAJESH GOPAL
IGF & DIRECTOR (PROJECT TIGER)

No.1-18/2002 – PT
Government of India
Ministry of Environment & Forests
(PROJECT TIGER)

Annexe No. 5, Bikaner House
Shahjahan Road, New Delhi-110011
Date the 18th June, 2002

To

The Chief Wildlife Warden,
(All States)

Subject: Protection initiatives in Tiger Reserves/National Parks/Sanctuaries.

Sir,

As you are perhaps aware, many gangs of poachers have been recently apprehended from Protected Areas like Nagarhole (Karnataka) and Nagarjunsagar Srisailam (Andhra Pradesh). These miscreants hail from States like Rajasthan, Haryana, M.P. and travel along with their kith and kin in small groups. They sneak inside Tiger Reserves/National Parks/Sanctuaries and other forest areas and carry on their activities. Basic interrogation has revealed their linkages with some notorious poachers. This calls for a dispassionate the view of protection initiatives in our Protected Areas for reinforcing the same with site-specific strategies based on past experience. While no generalised approach can be prescribed for the entire country, certain broad points are highlighted below, which may be of use in evolving or improving the protection strategy in-vogue:-

- (1) Review of the existing patrolling camps/chowkis in Protected Areas, so that each chowki/patrolling camp has, on an average, an area of 25-30 sq. km. under its jurisdiction to ensure the desired amount of legwork by beat guards and his camp followers posted in such patrolling camps/chowkis.
- (2) Prescribing a daily schedule of patrolling keeping in mind the vulnerability of the area from protection point of view.
- (3) Maintaining a monitoring/daily observation register in each patrolling camp/chowki in the local language preferably, in which the field personnel can record their daily observations based on patrolling.
- (4) Adopting a regular supervision schedule for field officers, alongwith minimum patrolling to be done by them jointly with patrolling camp/chowki staff.
- (5) Maintaining a system of “surprise checking” of chowkies/patrolling camps by senior officers.
- (6) Keeping a record of the local village level market days in the peripheral areas, and deploying information/staff in civil dress to keep track of any untoward incident/transaction relating to wildlife.
- (7) Organising vehicular patrolling by constituting squads comprising of field staff, labourers and police/SAF personnel (if necessary), with wireless handset and paraphernalia for apprehending offenders, apart from prescribing a patrolling calendar for the squad.
- (8) Maintaining a list of vehicles passing through manned barriers, and surprise checks by senior officers at such points during every month.

- (9) Evolving a monitoring system for collation of information regarding livestock depredation/human injury/loss of human life/large scale crop depredation by wild animals through wireless and prompt payment of compensation as per Citizens' Charter.
- (10) Wherever half eaten carcasses of livestock on account of carnivore depredation are reported, such carcasses should be incinerated in the presence of a gazetted officer to eliminate the possibility of poisoning for revenge killing by local people.
- (11) In areas where more than three incidents of livestock de-predation are reported within a fortnight, continuous monitoring based on field evidences should be done by deploying trackers.
- (12) Ensuring periodic monthly meetings with the neighboring district officials for exchanging wildlife crime dossiers to facilitate joint action.
- (13) Exchange of crime dossiers with local police to facilitate their updation, apart from organising monthly review meetings with the Superintendent of Police.
- (14) Periodic meetings with the District Judge to expedite the disposal of pending cases relating to wildlife offences.
- (15) Organising surprise raids jointly with the local police in railway stations, local trains, bus-stops, buses, catchers and cafeteria.
- (16) Ensuring special site-specific protection measures, during monsoon as 'Operation Monsoon' – considering the terrain and accessibility of Protected Areas.
- (17) Organising inter-state meetings at least once in three months, specially to exchange wildlife crime data between border Parks/Tiger Reserves/Sanctuaries.
- (18) The area should be constantly monitored to ascertain the presence of gaags and wandering pastoral people., apart from keeping an inventory of their temporary settlements.
- (19) Wherever EDCs have been constituted, a village level crime register should be maintained at the EDC level to keep track of villagers involved in wildlife offences.
- (20) At the range level, dossiers of perpetual offenders should be maintained, which may help in tracing new crimes to old offenders.
- (21) Identifying pro-active local persons and imparting them the basics of wildlife crime detection so as to avail their services as and when required as informers.
- (22) Preparing a monthly crime map of each Protected Area on a 1:50,000 scale indicating the locations of each crime with date. It should also highlight the recorded cases of live stock depredation by carnivores during the period.
- (23) Patrolling camp/chowki staff should be instructed to collect field evidences like pugmarks, plaster cast of foot-prints on a regular basis, so that individual identities of carnivores like tiger can be fixed. This would serve as a continuous monitoring also.
- (24) Laying out impression pads near water points in villages to ascertain the presence of carnivores in the area.
- (25) Constituting a Defence Squads comprising of local, pro-active villagers at the EDC level, which can assist the PA staff in apprehending miscreants involved in wildlife poaching.

It is requested, keeping the above in mind, suitable directives may be issued to the field formations under intimation to this Ministry.

Yours sincerely,

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

Copy to :-

1. Addl DGF (WL)
2. Forest Secretaries (All States)
3. Director, Project Elephant.
4. Deputy Directors, Wildlife Preservation (Northern/Southern/Eastern/Western Region).
5. Joint Director (WL) & Joint Director, Project Tiger

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

No.F.1-6/2001 – PT
Government of India
Ministry of Environment & Forests
(PROJECT TIGER)

Annexe No. 5, Bikaner House
Shahjahan Road, New Delhi-110011
Date the 10th September, 2001

To

The Chief Wildlife Warden,
(All Tiger Range States)

Subject: MONITORING AND EVALUATION OF PROJECT TIGER INITIATIVES IN
TIGER RESERVES – REG.

Sir,

As you are well aware, the Govt. of India (Project Tiger) provides allocation (100%) for the annual 'Monitoring and Evaluation' of initiatives executed under the Project. However, despite allocation, very few reports of monitoring and evaluation have been received from the field units, which is a matter of serious concern. It is therefore requested that this may be pursued in right earnestness and the task should be preferably entrusted to institutes like SFRI or other Centres of excellence in you State. Further, in constitution with such identified institutes, a 'Monitoring and Evaluation Committee' may also be constituted with representation from the Office of the Chief Wildlife Warden, field units and the office of the Regional Chief Conservator of Forests. An early action in this regard is desirable and the Govt. of India (Project Tiger) may be apprised of the same.

Yours sincerely,

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

No.F.1-6/2001 – PT
Government of India
Ministry of Environment & Forests
(PROJECT TIGER)

Annexe No. 5, Bikaner House
Shahjahan Road, New Delhi-110011
Date the 10th September, 2001

To

The Chief Wildlife Warden,
(All Tiger Range States)

Subject: Monthly Report on mortality of tigers, co-predators and wild animals.

Reference: This office letter No. 1-6/2000-PT dated 23rd June, 2000.

Sir,

Further to the reference cited above, it is seen that monthly reports relating to the mortality of tigers, co-predators and other wild animals are not received regularly from the various field units, despite repeated reminders from this end. Consequently, considerable difficulty is experienced by this office in sending reply to Parliament Questions and assurances. You may please ensure necessary compliance in this regard so that the monthly report in the prescribed format reaches this office by the 15th of every month. A copy of the format is appended once again for the needful.

Yours sincerely,

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

No.F.1-6/2001 – PT
Government of India
Ministry of Environment & Forests
(PROJECT TIGER)

Annexe No. 5, Bikaner House
Shahjahan Road, New Delhi-110011
Date the 11th September, 2001

To

The All Field Directors of Tiger Reserves

Subject: Patrolling Strategy and AntiPoaching Initiatives.

Sir,

Effective 'Anti Poaching' measures and 'Patrolling Strategy' should be accorded topmost priority in a Tiger Reserve management. The need for a reliable, round the clock wireless system, strategically placed forest patrolling camps and an ever vigilant, motivated frontline staff requires no elaboration. However, in the recent past, in several tiger reserves, mortality of wild animals has not been timely detected by the field staff, which poorly reflects on the management and degree of protection. Since Govt. of India allocates considerable resources for antipoaching and patrolling under Project Tiger, this is a matter of serious concern. Therefore, the following initiatives should be ensured in the overall protection strategy of your Tiger Reserve.

Creation of Patrolling Camps at sensitive points with deployment of staff/labour as required.

Listing of Staff/Camps with duty allocation and route chart.

Appropriately equipping the patrolling team with fire arms and mobile wireless sets.

Special instructions to squads/parties covering several aspects viz.:

- Suvreillance : hotels, tourist points, vehicles, bus stand
- Surveilance : traditional hunters etc.
- Coordination with local police
- Networking
- Issue of Special 'Preliminary Offence Report' books
- Preparation of daily schedule
- Local Country side market checking
- Surprise checking of barriers.
- Preparation of monthly wildlife "crime maps" (preferably in the GIS domain using GPS or on a 1:50,000 scale map)
- Monitoring Cattle kill, human kill, injury
- Monitoring water points near habitation
- Preparation of crime gang dossiers.
- Monitoring/updating at the level of Field Director/Dy. Director through wireless.
- Maintenance of 'village level' crime registers through village committees.
- Taking note of offences registered in local police station.
- Using tape recorder/camera to record evidences.
- Registration of fire arm license holders as per the directives of the Hon'ble Apex Court.

While situations in field units would vary necessitating site-specific strategy, the success of Wildlife Protection and crime risk management depends on good surveillance, timely reporting and networking, prompt situation analysis and immediate action. You are required to send the 'crime map' on a 1:50,000 scale along with (floppy/hard copy) details of wildlife crime registered, criminally prosecuted and convicted every 3 months to the PT monitoring cell of this office.

Yours sincerely,

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

No.F.1-6/2001 – PT
Government of India
Ministry of Environment & Forests
(PROJECT TIGER)

Annexe No. 5, Bikaner House
Shahjahan Road, New Delhi-110011
Date the 11th September, 2001

To

The All Field Directors,
All Tiger Reserves

Subject:- Disease surveillance and livestock immunization.

Sir,

As you are aware, wildlife disease may become one of the decimating factors causing high mortality among wild animals even in well established Protected Areas. Therefore, regular disease surveillance becomes important. Wild animals are prone to diseases which may be viral, bacterial, protozoan, mycotic, Helminth or ectoparasitic in nature. These diseases are mutually transferable between wild animals and livestock, and hence regular prophylactic immunization of nearby village cattle should be ensured by utilizing the services of local veterinary department. Further, seasonal pathological faecal matter analysis of major wild animal species (herbivores & carnivores, including departmental elephants) may be done, apart from blood tests with due permission as required under the Wildlife Protection Act, 1972.

Yours sincerely,

(Dr. Rajesh Gopal)
IGF & Director (Project Tiger)

No.F.1-6/2001 – PT
Government of India
Ministry of Environment & Forests
(PROJECT TIGER)

Annexe No. 5, Bikaner House
Shahjahan Road, New Delhi-110011
Date the 11th September, 2001

To

The All Field Directors
of Tiger Reserves

Subject: Physical Assault on Staff

Sir,

Any incidence of physical assault on field staff leading to death and other serious happenings may please be communicated to the Project Tiger Directorate through fax/e-mail/telephone at the earliest (within 24 hours), followed by a detailed report after ground truthing. Needless to add, this is essential to highlight the factual position to all concerned, and in the absence of such spot reports undue credence is given to hearsay accounts and stray media coverages which may not reflect the true picture.

Yours sincerely,

(Dr. Rajesh Gopal)
IGF & Director (Project Tiger)

Copy to: The Chief Wildlife Warden, _____

(Dr. Rajesh Gopal)
IGF & Director (Project Tiger)

No. 7-1/96-PT
GOVERNMENT OF INDIA
MINISTRY OF ENVIRONMENT & FORESTS
PROJECT TIGER

Annexe No.5, Bikaner House
Shahjahan Road, New Delhi-110003
Dated the 15th May, 1997

To

The Chief Wildlife Warden,

Sir,

Kindly refer to this office letter of even number dated 28th April, 1997 together with the recommendations of the Committee appointed by MoEF on tiger estimation.

Some of the states had already carried out estimation by the time the recommendations were sent to you. In other words the recommendations obviously can not be implemented during this years' estimation all over the country.

The conventional method being practiced till to date is well established with Forest Department. The recommendations of the Committee are not difficult to be followed either.

You will kindly appreciate that exact tiger numbers after each estimation has created lot of controversies and many people have put a question mark on our sincerity. You will also agree that this is more due to the fact that we have always tried to be honest to publish exact number which may not have been true because of human error.

In view of above I will suggest that instead of disseminating exact numbers we may announce a range of $\pm 10\%$.

I am sure you will agree with the proposal or if you have any other suggestion you are most welcome with you ideas.

Yours sincerely,

(P.K. SEN)
DIRECTOR, PROJECT TIGER
Field Director,

Copy forwarded to:

(P.K. SEN)
DIRECTOR, PROJECT TIGER
E-mail: dirpt@envfor.delhi.nic.in

To,

1. Principal Secretary Forests of all States having presence of tigers
2. CWLW, All States having tiger.
3. Field Director, All Tiger Reserves.
4. All members of Steering Committee Project Tiger.
5. All members of the Committee.

In continuation to the guidelines issued by this Ministry vide letter of even number dated 28-04-1997, there was a detailed discussion of Officials, Conservationist, Statisticians, Scientists and Non-Govt. organizations on the issue of Tiger Estimation in the country. There was an unanimous agreement that different methods should be used for different situations depending upon site specific factors, for example in Sunderbans and large areas of North-East, getting precise number of tigers by use of pug mark methodology is impossible. Similarly each methodology for estimation is not applicable to all tiger habitats in the country.

After careful consideration the decision taken on 4 – 4 – 1997 also enclosed with the new guideline and it is requested that a sincere effort must be made to implement the guidelines for estimation of tiger and other prey species and compliance reported to this Ministry for each financial year latest by 30th June of the next financial year.

Yours faithfully,

(P.K. Sen)
Director, Project Tiger

GUIDELINS FOR ESTIMATING TIGERS
DATED 22nd May 2001

1. The term census was not appropriate and thus the term “estimations” is to be adopted for the purpose of determining the trends in the wildlife populations. Therefore the annual exercise will be termed as “All India Wildlife Estimation”.
2. There is a diversity in areas across the country in the terms of available resources, skills and ecological conditions. Therefore different approaches are to be adopted for different areas for conducting tiger estimation.]
3. Different goals were identified for practicing managers, researchers and conservationist depending upon above consideration. Accordingly the following approaches are to be adopted:
 - (a) Spatial distribution maps (At a large scale) for all tiger population in the country are to be generated.
 - (b) In major protected areas with tiger population, simple but reliable indices of tiger densities are to be developed.
 - (c) In a few selected sites where sufficient resources and skilled manpower both from within and outside forest development is available, actual density study of tiger and prey species may be taken up and attempts be made to generate number of tiger population in the area for such specific sites only by more advanced technologies like camera trapping, digital photographs of pug marks, radiotelemetry or any other technology feasible.
4. It was decided no to attempt generation of tiger numbers where ecological factors and management / resource constraints, prevent the generation of invalid results.
5. A core group would be formed to oversee the results derived from tiger monitoring all over the country and assist the Ministry in arriving at a range of estimates for the purpose of informing the public and Parliament.
6. The consensus was reached that the guidelines issued by Project Tiger Division for monitoring of tiger and prey population on 04.04.1997, considering all the above aspects, will be followed. Therefore the proposed core group would ensure specific plan of action for proper implementation of the guidelines all over the country.
7. It was also agreed that the availability of maps of tiger habitats was a major constraint for management and research and special efforts to be made to be obtained them from FSI and other agencies.
8. All information collected from estimation should be readily available to managers, scientists and conservationist, in a central repository with Project Tiger Directorate.
9. Efforts will be made to put infrastructure in place in entire forest areas to carry out the tiger estimation as per plan elicited above expeditiously.

(P.K. Sen)
Director, Project Tiger

No. 8(2) – 9 / 98-PT
GOVERNMENT OF INDIA
MINISTRY OF ENVIRONMENT & FORESTS
PROJECT TIGER

Annexe No.-5, Bikaner House,
Shahjahan Road, New Delhi-11
Dated the 29th January, 1998

To

- (1) Forest Secretary,
Govt. of
- (2) P.C.C.F.,
Govt. of
- (3) Chief Wildlife Warden,
Govt. of
- (4) Field Director,

SUBJECT :- GUIDELINES FOR IMPLEMENTATION OF THE INDIA ECO-DEVELOPMENT PROJECT IN SEVEN PILOT PROTECTED AREAS.

Sir,

The Externally Aided India Eco-development Project is being implemented in your State. With a view to implementing the project in its right guidelines, a copy of which is circulated herewith for your information and guidance.

Yours faithfully,

(P.K. SEN)
DIRECTOR, PROJECT TIGER

MINISTRY OF ENVIRONMENT & FORESTS

PROJECT TIGER

SUBJECT: GUIDELINES FOR IMPLEMENTATION OF THE INDIA ECO-DEVELOPMENT PROJECT IN SEVEN PILOT PROTECTED AREAS.

Guidelines for implementation :

INTRODUCTION :

The main phase of India Eco-development Project (IEP) approved by the Cabinet Committee of Economics Affairs has become operational. The project is defined as a Centrally Sponsored Scheme with a IDA loan and GEF grant component.

The IEP received criticism on some issues mostly on account of lack of full information on the project. Nevertheless, some bottlenecks in the project need to be removed by framing well defined guidelines so that the project achieves its objectives.

The project has four components for which the following guidelines are issued:-

FIRST COMPONENT :

Improved P.A. Management :

The objective of the biodiversity conservation within the protected areas has to be ensured. Top priority may be accorded to habitat improvement so that maximum biomass is regenerated and made available to the herbivores for reaching optimum carrying capacity. In many of the states where externally aided forestry projects are in vogue, priorities are given to widening of the forest roads, construction of buildings, bridges and culverts which do not merge with the environment. Therefore, it is suggested that:

- (a) No building should be constructed in isolation which is inconsonant with the surrounding.
- (b) No widening of forest roads should be taken up; and
- (c) Bridges and culvert, if at all necessary, should be constructed so as not to carry a load beyond eight tones.
- (d) The fire watch towers should be so designed so that it is possible to lock access when not manned. The wireless and anti-poaching structures be carefully designed to prevent unauthorized access.

SECOND AND THIRD COMPONENTS

*****-DEVELOPMENT AND ECO-DEVELOPMENT SUPPORT COMPONENT**

Detailed discussions were held in the workshop organized by W.I.I., Dehradun on 25th and 26th of August, 1997. The selected Pas are seven pilot project sites whose success will decide India's future biodiversity conservation programme. Therefore, it is essential that only such activities are taken up which facilitate quantification of achievements.

It was accepted in the workshop that two major issues are common not only in the seven selected sites covered by this project, rather they are prevalent in all the P.As. Therefore, it is expected that the P.A. Managers will priorities their activities so that our achievements through this project are visible to one and all. The identified common pressure points are: (a) grazing (b) fuelwood, fodder and small timber collection (c) low output from the existing resources of villagers and (d) no income generation during lean period for marginal and submarginal and landless villagers.

Any other issue is site specific and therefore no common guideline can be issued on that. Though the staff appraisal report envisages implementation of eco-development work according to microplans which have to be formulated for each identified village but emphasis should be given to these issues while submitting the A.P.O. and executing eco-development activities. A few of the suggestions are noted below.

(a) Fuel & small timber: Plantation of indigenous fast growing fuel, small timber and fodder in:

- (i) Community land
- (ii) Village waste land
- (iii) Private waste land
- (iv) Other revenue waste land

(b) Grazing: (i) reduction in number of scrub cattle.
(ii) substitute them by improved or cross breed cattle.
(iii) Biogas plants.
(iv) Veterinary Care Units.

While raising such plantations application of chemical fertilizers and insecticides may preferably be avoided.

(c) Augmentation of output: -

- (i) Adoption of soil and water conservation techniques
- (ii) Small irrigation facilities earthen check dams, stop dams, ponds etc.

(d) Income generation:

- (i) bee keeping
- (ii) poultry
- (iii) piggery
- (iv) Tassar
- (v) Sewing and knitting etc.

(e) Any other:

Such items as insisted by villagers which may be area specific.

The suggested percentage of investment under these components is:

- (a) - 40%
- (b) - 20%
- (c) - 25%
- (d) - 10%
- (e) - 5%

Only labour oriented earthen works should be taken up to cut down the expenditure on cement and steel items.

A close proximity with the District Administration will avoid duplicity of work; rather District Administration should be closely associated with this project so that the P.A. authorities may take up the case of additional development work in selected village through D.R.D.A. funds.

FOURTH COMPONENT
PROJECT MANAGEMENT COMPONENT

All the investments should flow out of the approved Plan for the protected area. It is proposed to write new management plans for each PA and, therefore, special training for such officers have been suggested in the consultancy. The guidelines for new management plan have already been circulated by W.I.I. In situ training schedule for category of staff below Forest Ranger should be finalized with W.I.I., as well as training of management plan officers should be taken up with W.I.I. immediately under intimation to the Director, Project Tiger. Similarly the research component too have to be management plan oriented and, therefore while revising the Management Plan, utmost attention must be given to the research component which has substantial share in this project.

To,

Chief Wildlife Wardens
(All States)

Subject: Habitat occupancy map of tigers.

Reference:

- a) This Ministry's letter No. 7-1/96-PT dated 27th November, 2001, and subsequent three reminders.
- b) This Ministry's letter No. 4(5)-1/2001 – PT dated 12th June, 2002.

Sir,

Please refer to the correspondence cited above, wherein a State level Forest Map on a 1:250,000 scale was requested, depicting boundary delineation of forest divisions / Protected Areas, with the spatial presence of tigers plotted as “dots”, corresponding to the estimation data sent from your end. This information is still awaited, due to which “vetting” of the figures by the core committee is held up. It is requested, the same may be expedited without any further delay.

In addition, the Addl. DG (Wildlife) has desired that the Field Directors and Protected Area Managers should maintain seasonal Habitats Occupancy Maps of tiger for the tiger populations, pertaining to their own field units. The methodology to be followed is simple and based on available field data. For guidance, a brief write-up is annexed.

This information is vital for a country level appraisal of tiger presence and therefore suitable directives may be issued to all concerned for doing the needful. Further follow-up work will be indicated as soon as the analysis of Habitat Occupancy Maps is carried out.

Yours sincerely,

(Dr. RAJESH GOPAL)
IGF & DIRECTOR (PT)

Copy to:

1. Addl. DG (Wildlife), Ministry of Environment & Forests,
New Delhi.
2. Principal Secretary / Forest Secretary of all respective
States.

(Dr. RAJESH GOPAL)
IGF & DIRECTOR (PT)

Preparing Seasonal Habitat Occupancy Maps (HOMs)

The documentation of presence or absence of a species through evidences and sightings in forest compartments on a map is a quick, simple, user friendly way of making a beginning to understand response of the species to the ecological conditions prevalent in an administrative management unit. It helps the forest managers in fine tuning the knowledge base relating to his/her area and notice the impacts of management interventions in a very short time, within their tenures of service in the area.

Tiger is an ecological indicator species. The tiger habitats may not be fully occupied by tiger populations all the time. What are the habitat occupancy dynamics of any particular species, or a group of animals species, in a Tiger Reserve or any other wildlife management unit is the basic knowledge that is needed to formulate management strategies and prescriptions.

To start with understating of the Habitat Occupancy Dynamics of tigers we need the following material:-

1. A map of the total management unit, say a Tiger Reserve, showing compartments boundaries, major land based features including location of human habitations, roads, rivers and watercourses, etc. The scale of the map should be such that the entire management unit can be seen on a single sheet of quarter imperial drawing board size. An ammonia sheet map will be acceptable.
2. Tracings and plaster casts of 3 recent census exercise years, on which locations and date from where these were picked up.
3. Colour pens, each colour for a specific year.

After reading the location and year in which any particular tracing or plaster cast was picked up, as indicated by the collector on it, place a dot, in colour coded for that particular year, in the compartment on the map where it was picked up. The objective of this action is only to indicate that a tiger (irrespective of its age or sex) had used that compartment during the census month in that particular year.

A single map showing the pattern of occupancy by tigers by colour dots during the three census years is the basic map to act as a bench mark for future work.

Likewise single sheet will, in future, be needed for registering HOMs on seasonal basis. Each season will be given a separate colour code for the entire year. However, the perceived pinch-period for tigers prey base must be covered. This work, to cover occupancy by tigers

during the identified seasons, should be started w.e.f. 1st June, 2003 and taken up at 4 month intervals. For this purpose census exercise will not be needed. Reporting of presence of pugmarks, scats and other evidences, and sightings if any will suffice as data to be placed on Habitat Occupancy Map.

If the management authority would like to proceed ahead, HOMs may also be prepared simultaneously for leopard, bear, gaur, and major tiger-prey species on separate sheets.

An overview will be taken of the HOMs prepared as and when these are ready to decide about moving onto the next steps to be taken.

To

The Field Directors
(All Tiger Reserves)

Subject: Preventive measures/surveillance for Trypanosomiasis in wild, free ranging conditions.

Sir,

As you are aware, Trypanosomiasis (commonly known as Surra), is an acute, sub-acute or chronic disease caused by a protozoa (Trypanosoma evansi). The disease is characterized by fever, progressive emaciation, anemia, neural symptoms and death. While in dogs and cats the disease is acute and fatal, it may become chronic in ruminants. The disease is reportedly an enzootic one occurring in domestic animals. However, several references are available relating to free ranging wild animals also, and the outbreak has been observed during the onset of monsoon synchronizing with the breeding activities of flies. In our country, the transmission of this disease occurs due to blood sucking flies belonging to genera Tabanus and Stomoxys which serve as vectors. The wild animal may get infection by feeding on an infected carcass/prey animal or through the flies. The Tabanus fly lives along fresh water ponds or rivers, whereas Stomoxys breed on decomposing fecal or waste matter, especially from cattle shed. Since chances of infection of infection to in-situ population of wild animals exists, the following preventive measures are suggested:-

1. Population control of flies around cattle sheds by destroying their breeding area in peripheral villages of Tiger Reserves.
2. Control of disease in domestic animals in villages in and around Tiger Reserves.
3. Controlling the movement of nomadic and village cattle inside Tiger Reserves.
4. Surveillance of the disease and prophylactic treatment of sick and reservoir domestic animals at the periphery of Protected Areas/Tiger Reserves.
5. Periodical surveillance of diseases in wild and domestic animals at waterholes and grazing lands near peripheral villages.
6. Treatment of suspected animals particularly of threatened species.
7. Ensuring a regular monitoring system through wireless, involving the Eco-development Committees.

Yours sincerely,

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

- Copy to:
1. Principal Secretary/Secretary, Forest Department (All States having Tiger Reserves)
 2. Principal Chief Conservator of Forests (All States)
 3. Chief Wildlife Wardens (All States having Tiger Reserves)

No. 7-1/ 96- PT
Government of India
Ministry of Environment & Forests
(Project Tiger)

**Annex No. 5, Bikaner House,
Shahjahan Road, New Delhi- 110 011.**

Telefax: 3384428

E-mail: dirpt-r@hub.nic.in

Dated 27th Nov., 2001

To

Chief Wildlife Warden,
(All Tiger Range States)

SUBJECT: All India Estimation of Tiger/ Leopard/ Wild Animals.

Sir,

The All India Census of Tiger/ Leopard/ major wild animals (free ranging, as well as captive) is due in the current year. As done during 1997, apart from tiger and leopard, other major wild animals are also to be estimated viz. rhino, gaur, wild buffalo, brow antlered deer, hog deer, cheetal, wild pig, crocodile, barasingha, neelgai, black buck, barking deer, hog deer, elephant and the like. This list is by no means exhaustive, and hence other important faunal species found within your jurisdiction may also be taken into account during the estimation.

As you are aware, detailed guidelines for estimating carnivores have been issued from this Directorate in the past. A copy of these guidelines are once again appended for ready reference. Further, guidelines have also been issued subsequently in 1997 for estimating tigers, followed by additional directives for refinement in 2001.

Estimation of tiger population, based on pug marks and related evidences, still remains the most cost effective and time tested methodology suited to our conditions, which if carried out due care in a systematic manner, can lead to authentic results. Therefore, as indicated in the guidelines, considerable emphasis may be given on the training aspects, and preferably three or four "spearhead teams" consisting of 3 frontline staff (1 Range Officer/ Dy. Range Officer, 1 Forester, 1 Forest Guard) may be given intensive practice so that they are in a position to collect the pug/ impressions and supporting evidences from the field in a reliable manner. Instructions may also be issued to all field units for "preserving" the pug marks of tiger/ leopard by protecting them with stones or sticks encircled all around, so that they are not obliterated by vehicular or pedestrian movement. Such "preserved impressions" may be telecasted/ photographed only by the spearhead team so that the basis in telecasting/ photographing gets reflected throughout consequently leading to its destination.

As per the directives issued subsequently, if the area permits further movement, results of such refinement may also be supplemented along with the pug marks data.

Estimation of other wild animals may also be done using one of the following methods as per feasibility:-

- i) Direct block counting (to be done on 2 days with a correction factor)
- ii) Pellet/ dung density estimation
- iii) Waterhole counts
- iv) Transect counts(vehicular/ non-vehicular)

Considering the infrastructural limitations and terrain conditions for the various protected areas and forest areas, it is neither desirable not practical to advocate any single method of estimating the wild animals other than major carnivores like tiger/ leopard,

therefore, necessary instructions/ field training may be imparted to the managerial staff in consultation with the Wildlife Institute of India or other resource persons readily available. Since livestock is also an important denizen of our right burdened forests, forming a sizeable component in the diet of major carnivores, the number of livestock depredated along with compensation disbursed by the field units during the year for such depredation may invariably indicated. Likewise, exgratia paid for loss of human life or injury may also be furnished field unit-wise.

To ensure uniformity, transparency and desired standard in the entire exercise, it has been decided to constitute a “Supervisory Committee” at the State level consisting of the respective Chief Wildlife Warden, NGO/NGI of long standing association with wildlife, and a regional scientist. You are requested to kindly suggest a panel in this regard for the consideration of the Ministry.

The time schedule for the estimation exercise is appended in the Annexure-A.

For taking into account the transient animals (especially tigers), it is imperative that the estimation exercise should be coordinated with the neighboring States by tallying the evidences collected in the vicinity. As desired fit, suitable instructions may kindly be issued for such coordination meetings, and a “Coordination Committee” comprising of local officers may also be constituted under intimation to this Ministry.

It is once again reiterated that the estimated figures should be supplemented with the continuous monitoring data along with the outcome of other refinement carried out, if any.

A meeting would be shortly convened in this regard and you are requested to furnish the select list of NGOs/ NGIs/ Scientists at an early date.

Yours sincerely,

(Dr. Rajesh Gopal)

IGF&Director(PT)

Shri Arun Sen,
APCCF & Chief Wildlife Warden (Rajasthan)
Jaipur.

Sir,

Our recent discussion relating to Sariska & Ranthambhore Tiger Reserve following my field visit to these Protected Areas may please be recalled. The following actions may please be ensured for systemic improvement in the management of Sariska & Ranthambhore:

1. Intensive search may be carried out in the Sariska Tiger Reserve and adjoining forest areas (Jamua Ramgarh, Dosa, Alwar, Jaipur) in the coming fortnight. The field survey should also include ground truthing for snares, traps and other untoward objects in the habitat, which may be carried out by deploying forest guard trainees from the state along with the local staff.
2. The vehicular pilgrim traffic inside Sariska as well as Ranthambhore has gone up tremendously in the recent past (almost 1500 vehicles per day in Sariska), which is a major disturbing factor for wild animals. Necessary directives may be issued for regulating the same as per the guidelines issued from this Ministry.
3. The format for wild animal monitoring by front line staff is enclosed. The field staff may be directed to maintain a daily record of monitoring in this format, with frequent supervisory checks by the Deputy Director(s) and the Field Director(s).
4. The directives regarding protection issued earlier from this Ministry are once again appended for compliance.

The field situation in both the Protected Areas leave a lot to be desired. In general, there is a need for systematic improvement as per the normative guidelines of Project Tiger. Since the desired level of protection involves considerable leg-work, a long term staff development plan is required for these areas, with officers having experience and aptitude for field work. It is suggested, the situation may be reviewed urgently and this Ministry may be apprised of the action taken.

Yours sincerely,

(DR. RAJESH GOPAL)
IGF & DIRECTOR (PT)

Copy to :

1. PPS to Secretary (E&F), MoEF, CGO Complex, New Delhi
2. PPS to DGF & SS, MoEF, CGO Complex, New Delhi
3. PPS to Addl. DGF(WL), MoEF, CGO Complex, New Delhi
4. PCCF (Rajasthan), Jaipur.

No.5-37/2004-PT

Dated the 17th February, 2005.

To

The Chief Wildlife Wardens
(All Tiger Reserve States)

Sir,

During the All India Meeting of the Field Directors held recently at Bandipur Tiger Reserve, the protection strategy adopted in various reserves was reviewed, apart from standardizing formats for the forthcoming all India estimation of tigers, co-predators and prey animals. Further, a compendium of Project Tiger circulars on various issues relating to field implementation was also provided to the Field Directors, reiterating its compliance.

You are requested to ensure compliance of the directives and quarterly biannual and annual reports, apart from monitoring the protection initiatives periodically at your level under intimation to this Ministry. A copy of the compendium under reference is again annexed for reference.

Yours sincerely,

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

- Copy to :
1. Principal Secretary (Forests)/Forest Secretary (All Tiger Reserve States).
 2. Principal Chief Conservator of Forests (All Tiger Reserve States).

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

To

Field Directors
(All Tiger Reserves)

Subject: Monitoring monthly frequency of pug-marks in the habitat

Sir,

During the recent deliberations in the All India meeting of field directors at Bandipur , the format for daily monitoring of wild animals and habitat parameters was circulated . It is reiterated , the field staff may be directed to record the day to day field monitoring data in the prescribed format to be maintained at nakas/patrolling camps/chowkis w.e.f. 15-3-2005, which would be checked by the officials of this Ministry during their supervisory field visits. This would be in addition to the traditional tracking record being maintained in the reserve . *Further , the total number of tiger pug marks /scats /kills seen/collected in the reserve during the last seven days in a month should also be recorded and communicated to this ministry every month in the enclosed format every month. While counting pugmarks care should be taken to take note of only one pug mark from a track pertaining to a single animal.* This would facilitate continuous monitoring of tiger population in the habitat, so that reasons for any change in the relative abundance of such evidence in the habitat can be looked into as a part of the continuous monitoring strategy . This may please be accorded top most priority.

Yours sincerely,

Encl: As above.

(Dr. Rajesh Gopal)
IGF & Director , ProjectTiger

Copy to :

- (1) Principal Chief Conservator of Forests (All Tiger Reserve States)
- (2) The Chief Wildlife Wardens (All Tiger Reserve States)

]

DATA SHEET FOR TIGER MONITORING

Name of the recorder : _____ Date : _____

Forest Division _____ Forest Circle _____

Range _____

Days	Number of Tiger Signs collected/seen (Pugmark/Scat)
1	
2	
3	
4	
5	
6	
7	
Total	

1) Has any tigress with cubs been reported during the past 3 months?

Yes _____ No _____

a) Seen by staff, b/ Pug Marks, c/ Reported by local persons, d) Seen by Officials

How many cubs _____ approximate age of cubs _____

2) In case tigers are known to be present in the beat, but no sign was obtained during the sampling period then mention on what evidence was this conclusion made (pugmark, direct sighting, scat, other sign) _____

3) How many livestock predation events have been recorded in the past 3 months _____ by tigers?

To

Principal Chief Conservator of Forests
(All Tiger Reserve States)

Sir,

The All India estimation of tigers, co-predators and prey animals would be conducted from November, 2005 to February, 2006. This Ministry would be deputing a panel of experts/supervisors for assisting and overseeing the estimation work in States. While detailed guidelines in this regard would be sent in the near future, you are requested to maintain a monthly monitoring data of tigers seen in the various forest divisions and protected areas outside the Tiger Reserves, in the prescribed format annexed with this letter w.e.f. 01-04-2005. The number of evidences pertaining to tiger presence (pug marks, scats, kills) should be recorded during the last seven days in a month by field staff. **While counting pugmarks, care should be taken to take note of only one pug mark from a track pertaining to a single animal.** The total number of pug marks/scats/kills pertaining to tiger in the area should be compiled range-wise for each division, and the collated circle level information has to be maintained month-wise in the office of the Chief Wildlife Warden.

The field staff may be directed to maintain the range level records for supervisory checks by the expert team of this Ministry. This may please be accorded top most priority, as the information is crucial to ascertain the status of tiger presence in areas outside the Tiger Reserves. All Conservators, Divisional Forest Officers and Protected Area Managers may be directed accordingly under intimation to this Ministry.

Yours sincerely,

Encl: As above.

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

Copy to : 1. Forest Secretary (All Tiger Reserve States)
2. Chief Wildlife Warden (All Tiger Reserve States)
3. Field Director (All Tiger Reserve States)

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