

Government of India
Ministry of Environment, Forests and Climate Change
Wildlife Division

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New Delhi-110003

F. No. 1-57/2014 WL

Dated: 19th September 2018

1. The Pr. Chief Conservator of Forests & HoFF
All States/UT Governments
2. The Chief Wildlife Warden
All States/UT Governments

Sub: Policy for Eco-tourism in Forest and Wildlife Areas- Reg.

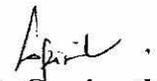
Sir,

Forests and wildlife are inseparable elements of environmental integrity and therefore, a participatory approach towards building the intricate interface between humans and forests is imperative.

2. With a view to practice eco-tourism in a ecofriendly manner, a policy has been prepared by this Ministry. The Eco-Tourism Policy is primarily prepared for wildlife, forest and areas having significant aesthetic appeal for nature. A copy of the document is enclosed.

3. The State/UT Governments may take further necessary action, in this regard.

Yours faithfully,



(Dr. R. Gopinath)

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Encl: As above.

Copy to:

1. Principal Secretary (Forests), all States/UT Governments.
2. The Joint Secretary, Niche Tourism, Ministry of Tourism, Parivahan Bhawan,
New Delhi.

POLICY

FOR

ECO-TOURISM IN FOREST AND

WILDLIFE AREAS



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GOVERNMENT OF INDIA

MINISTRY OF ENVIRONMENT FOREST AND

CLIMATE CHANGE

MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE
POLICY FOR ECO-TOURISM IN FOREST AND WILDLIFE AREAS

1. BACKGROUND

Eco-tourism may be defined as '**responsible travel to natural areas that conserves the environment and improves the well-being of local people**' (*TIES*). Forests and wildlife are elements of nature and inseparable parts of the environment. Because of the intricate nature of interface between nature and human beings, nature conservation must entail participation of people as a non negotiable component. The participation in this endeavour includes not only the forest fringe dwellers, but also those who may be living away from the forests. Eco-tourism may be developed in wildlife conservation areas designated as Protected Areas (PAs) – Wildlife Sanctuaries, National Parks, Conservation Reserves and Community Reserves., and also in areas outside designated protected Areas, which may include, forests, mangroves, Sacred Groves, mud flats, wetlands, rivers, etc. Appreciation of the various elements of nature, their direct and indirect impact on our survival and intangible services provided by those are of paramount. Visitation to such pristine Areas would facilitate direct appreciation and understanding of the nature. Eco-tourism, when practiced appropriately, besides educating the visitors can also provide livelihood opportunities for the local communities. Hence, there is felt need to develop a model of eco-tourism that is responsible and compatible with sensitivities of the management objectives of the landscapes. However, the objective primarily being for preservation, it is of prime importance that the profile of the natural features are not compromised due to the impact of eco-tourism activities.

2. GOAL

Promoting better understanding of nature and wildlife conservation while generating income and opportunities for the local communities.

3. OBJECTIVES

The following are the broad objectives of the Eco-tourism policy:

- i. Adopting low impact nature tourism which ensures ecological integrity
- ii. Promoting biodiversity richness and heritage values of India's wilderness
- iii. Engaging local communities and developing mechanisms with a view of enriching the local economy and promoting sustainable use of indigenous materials
- iv. Establishing partnerships with all stakeholders for developing and promoting nature tourism.

4. GUIDING PRINCIPLES FOR ECOTOURISM

(i) Eco-tourism Plan: Eco-tourism facilitation within the forest and wildlife areas will be a part of the management/ working plan of the unit. The eco-tourism plan will provide for identified locations/ routes for visitation, permissible activities, permissible time for visit and means of travel. Delineation of inviolate space in the area and seasonal requirements will be specified in the Plan. States may develop benchmarks/ standardized criteria based on site specificity, for adoption of best practices in eco-tourism.

(ii) Eco-tourism zone: Demarcation of areas for tourist visitation, whether within core or buffer or both will depend upon the management requirements and shall be decided based on the target species, their behavioural and habitat characteristics. To maintain ecological integrity, protection of breeding areas and other sensitive sites are necessary. Therefore, those should be excluded from eco-tourism activities. Finalisation of tourism packages, identification of tourism routes, etc. will be done by the respective Protected Area Manager/ DFO in consultation with the State Chief Wildlife Warden.

(iii) Community Participation: It is essential that management of eco-tourism facilitates primarily vests on the local communities as the principal stakeholders. Thus, the benefits flowing from the visitation in the area must also accrue to the local communities by way of livelihood opportunities arising from eco-tourism. This will reinforce their interface and sense of ownership.

Buffer areas, private lands, revenue lands and Reserve Forests around PAs that have good wildlife habitat will be developed for eco-tourism to reduce pressure on sensitive “core” areas and to enhance local benefits.

(iv) Infrastructure development:

Natural profile and ecological integrity of forest and wildlife areas, along with their wildlife/ biodiversity values shall be maintained. Infrastructure for eco-tourism will be so designed that those merge with the ambient environment. These will utilise local resources and avoid use of cement concrete as far as possible.

The activities will be eco-friendly and no permanent structures will be established in violation of Forest (Conservation) Act, 1980.

Considering that the local livelihood improvement is one of the expected outcomes of eco-tourism, homestead based hospitality enterprises will be encouraged.

Construction works like permanent buildings for camps, camping complexes with lodging/ boarding structures, helipads, new roads, tourist bungalows/ commercial lodges etc for eco-tourism purpose shall not be allowed without clearance under Forest (Conservation) Act.

Infrastructure outside Protected Areas will also be developed in eco-friendly manner so that those merge with the surroundings. The extent of infrastructure those will be developed will be limited to the carrying capacity of the area.

5. IMPLEMENTATION STRATEGY

The following are the broad framework for implementation of the Eco-tourism policy:

Strategy i: Identification of potential sites: Each State may identify areas for eco-tourism within the Protected Areas, in pristine areas rich in biodiversity or of aesthetic significance through a participatory process involving stakeholders, particularly the local communities.

Strategy ii: Assessment of Carrying Capacity: Carrying capacities of visitors and vehicles those may be allowed to enter inside the identified area will be assessed and ceiling on number of visitors/vehicles those may allowed to enter the area at any given time, will be fixed. Carrying capacity assessment will cover:

- Number of Persons visiting the PA at different points of time
- Number of Vehicles/boats, etc. entering the PA
- Infrastructure
- Duration of the visits
- Duration of exposure of the PA to Eco-tourism activities

An illustrative calculation of carrying capacity, as worked out in the 'Guidelines for tourism in Tiger Reserves' is at ANNEXURE.

Strategy iii: Capacity building: Field functionaries will be imparted specialized training on Eco-tourism activities. Capacities of local communities will be built to act as nature guides and to provide hospitality management services. This may include training to discharge specialized tasks such as tourist guides, natural science interpreters, patrol partners for protection work, entrepreneurs for small scale homestead based hospitality industry, small business operators (like souvenir shops, equipments for hire, photography etc).

The State Governments may charge a conservation fee for overall eco-development. The conservation fee may be decided based on the number of persons visiting the facility, the duration of operation of the facility (seasonal or year round) and on a luxury classification system such as home stay to high-end. The rate of conservation fee and tourist facility strata will be determined by the State Government and the funds, so collected will be

earmarked to address local livelihood development issues, human wildlife conflict management and conservation through eco-development.

Strategy iv: Sharing of Revenue benefits: Considering that eco-tourism is an economic activity, it is important that the eco-tourism plan incorporates a feasible revenue sharing mechanism for the stakeholders.

Provision will be made for establishment of foundations, either for each of the identified area or an umbrella Foundation to cover multiple areas. The funds accrued from eco-tourism activities in the Foundations will be utilised for community development, and running of eco-tourism facilities.

An indicative model for sharing of revenue is as under:

- 40% for payment of remuneration to local community directly involved in running eco-tourism facilities;
- 40% for maintenance of the Eco-tourism facilities
- 10% as incentive to local Eco Development Committee (EDC) or Village Level Forest Management Committee
- 10% as revenue to Government

Strategy v: Monitoring: Eco-tourism plans will invariably include a dynamic monitoring mechanism, covering number of tourists visiting and the pattern, their level of satisfaction, involvement of local people, scope for improvement, etc. This will facilitate prediction of growth and preparation for management of the growth of eco-tourism in terms of visitation management, growth of hospitality facilities in neighbourhood, need for security arrangements for the area and so on.

Strategy vi: Education and Interpretation: For effective use of the eco-tourism potential of the area, the management has to work on an effective education and interpretation plan. The visitors must be sensitized on the significance of conservation and expected behavioural requirements while they are within the pristine area. For this purpose an effective communication plan is essential which must include providing crucial information to the tourists to appreciate the eco-system services and intangible benefits

provided by the area. It will be a good idea to put in place electronic visual tools, well equipped interpretation centre, appropriate signages, audiovisual presentation centers, interactive learning tools, safety protocol and information material on the area for the visitors.

Strategy vii: Interface with District/ State Administration:

Within National Parks, Sanctuaries and Reserved or Protected Forests: Collaboration and coordination amongst the Central and State Government Departments, EDCs, forest dwellers, local communities and civil society institutions will bring about synergy for effective eco-tourism management. States/ District/ Protected Area Steering Committees may be set up.

A local level committee may look like:

Park Manager/ the Divisional Forest Officer- Chair

Honorary Wildlife Warden- Member

Representative of Tourism Department- Member

Representative of Local Panchayat- Member

Representative of Local Communities- Member

Wildlife Experts- Member

Forest Range Officer- Member Secretary.

Mandate:

- To oversee implementation of the eco-tourism strategies and guidelines with respect to the concerned area and make recommendations to the Eco-tourism Board and State/UT Government, wherever necessary;
- To advise local communities on issues relating to development of eco-tourism in areas outside Protected Areas
- To monitor the activities of tour operators and ensure that they follow all safety norms, rules and procedures and do not cause any damage or disturbance to the eco-tourism resources and activities;
- To ensure that the revenue from eco-tourism flow to the local communities.

The State Board for Wildlife may take review of the Tourism activities in the State and make suggestions appropriately.

In case of Conservation Reserves and Community Reserves, the Management Committees constituted under Section 36B and 36D of the Wild Life (Protection) Act, 1972 will advise on activities including tourism in Conservation and Community Reserves and will be in consonance with this policy for eco-tourism in Protected Areas.

The State Board for Wildlife would take review of the Tourism activities in the State and make suggestions appropriately.

There are many Protected Areas with shrines or religious places located within. The tour operators, drivers and shrine controlling authorities need to be given an exposure on the value of forest ecosystems and their ecological services, along with the training to inculcate do's and don'ts during visits of pilgrims into forests and PAs. Cooperation of the local administration will be solicited in line with the mechanisms indicated above.

Strategy viii: Institutional mechanism for implementation: Each State/UT may establish an Eco-Tourism Development Board to advise the State/UT on the eco-tourism modalities and for overseeing the implementation of the policy. The Board would ensure that objectives of this Policy are attained. The State/UT would also ensure adequate Technical and Financial support to the Board. In case of any dispute, the decision of the management of Protected Areas shall prevail.

Enabling provisions for management of eco-tourism within protected areas:

The legal provisions available within the Wild Life (Protection) Act, 1972 for facilitating this include section 29, 30, 33, 33B, 35 (6), 38-O and 64 which provide powers to the state governments to frame rules for carrying out provisions of the Act, and to the Chief Wild Life Wardens to regulate activities within the PAs. The powers for approval of Management plan of a PA are vested with Chief Wild Life Warden. In case of Conservation Reserves and Community Reserves, the powers vested in the respective management committees provide enabling environment for formulation of management plan including the eco-tourism planning within.

ESTIMATION OF CARRYING CAPACITY
(Model Calculation, Example: Kanha Tiger Reserve)

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

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

Where, A = available area for public use

V/a = one visitor / M²

Rf = rotation factor (number of visits per day)

In order to measure the PCC to Kanha, the following criteria must be taken into account:
Only vehicular movements on forest roads are permitted

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

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

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

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

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

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

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

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

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

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

$$RCC = PCC - Cf_1 - Cf_2 \text{ ----- } Cf_n,$$

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

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

Corrective Factors are “site-specific”, and are expressed in percentage as below:

$$Cf = \frac{M_l}{M_t} \times 100$$

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

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

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

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

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

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

Corrective Factor for barasingha

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

Corrective Factor for spotted deer

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

Corrective Factor for tiger

$$Cf w_3 = \frac{2}{9} \times 100 = 22.2\%$$

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

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

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

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

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

Computation of RCC

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

$$= 1472 (0.22 \times 0.45 \times 0.95)$$
$$= 138.4 \text{ or } 138 \text{ visits / day}$$

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

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

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

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

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

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