

CHAPTER-VI

Non-Forest Activities in and around Sanctuaries

A Snapshot

The user agencies either did not apply under the Forest Conservation Act (FCA)/ Wildlife Protection Act (WPA) for obtaining necessary approval or completed the work of widening of roads despite pendency of approval from MoEF&CC and NBWL. The concerned authority had certified the details (regarding location of road project with reference to protected area/ ESZ and compliance to the provisions of FCA) incorrectly while forwarding the proposal to MoEF&CC which indicated inadequate monitoring over the Protected Areas and ESZ and lack of adequate scrutiny of the proposals. This also led to non-submission of application for required clearance from NBWL. The user agencies had applied for lesser land than the actual requirement.

The State Ecotourism Policy 2007 was not updated/ modified considering the provisions of 'Policy for ecotourism in forest and wildlife areas' issued by MoEF&CC in 2018. Ecotourism sites were developed in the Sanctuaries in violation of FCA and WPA. Site specific ecotourism plans were not developed for any of the Sanctuaries test-checked by Audit. The Department neither devised any monitoring mechanism for regulated access nor fixed the carrying capacity of the respective Sanctuary based on scientific study. As such, there was no ceiling limit of visitors and vehicles and impact of tourism/ pilgrimage on the natural environment remained to be monitored and regulated. The Sanctuaries were open to tourists all through the year, which would adversely affect mating and regeneration of wildlife.

Introduction

Protected Areas (PAs) and adjoining areas (ESZ/ Wildlife corridors) being treasure troves of biodiversity, it is of utmost importance to regulate activities which have a negative impact on wildlife habitats within these areas. Guidelines for declaration of ESZ around PAs issued (February 2011) by MoEF prohibited undertaking several activities like commercial mining, saw mills, setting of industries causing pollution, establishment of major hydroelectric projects, etc. Further, it brought construction of new roads, widening of existing roads, regulating tourism activities etc. within the ambit of regulated activities to minimise the ecological damage from such activities.

Audit observed instances of violations of the provisions of the Forest Conservation Act (FCA), 1980 and Wildlife Protection Act (WPA), 1972, in the grant of approval and regulation of non-forest activities in and around PAs. These have been discussed in the succeeding paragraphs.

6.1 Widening of existing roads

To maintain the integrity of Protected Areas, wildlife corridors and ESZs; construction of new roads and expansion of existing roads are regulated vide various Acts, Rules and Guidelines issued by the Central and State Governments. The relevant provisions of the various statutes in this regard are as under:

- i. Prior approval of National Board of Wild Life (NBWL) is required under Section 29 of WPA for diversion of land of Wildlife Sanctuaries (Sanctuaries) and National Parks (NP).
- ii. Prior approval of Central Government i.e. MoEF&CC is required under FCA 1980 for diversion of forest land.
- iii. Prior approval of NBWL and environment clearance¹ under Environmental Impact Assessment (EIA) Notification 2006 is required for any project located within ESZ area².
- iv. Guidelines and clarifications issued (2019) by MoEF&CC state that “non-forest lands acquired by the Government Departments for construction of roads and the vacant area in the Right of Way (RoW) which were subsequently planted and notified as protected forests for management purposes will attract the provisions of FCA, 1980”. Similarly, use of forest land, for road widening even if such forest land falls within existing RoW will require prior approval of Central Government under the FCA.

Audit observed that four road widening projects were executed in three out of the six test checked Sanctuaries³ and their notified ESZ during the period 2016-2021. Out of these four projects, irregularities were noticed in three projects as brought out in subsequent paragraphs.

6.1.1 Widening of Danta-Ambaji State Highway (passing through Balaram Ambaji Sanctuary and its ESZ area)

Roads and Buildings (R&B) Division, Palanpur (the User Agency) issued the work order (13 June 2018) for widening of Danta to Ambaji State Highway, part of which passes through Reserve Forest, Protected Forest, Sanctuary area and ESZ. The work was completed in 2020. Audit observed that the project required prior permission (i) under FCA for diversion of forest land, (ii) under WPA for diversion of Sanctuary land and also (iii) clearance of NBWL for executing the project in ESZ area. User agency executed the road widening project in four packages. Status of seeking and receiving of required prior approvals in these packages was as discussed below:

¹ As per EIA notification, any State highway/ National highway/ Expressway expansion project falling under ESZ and whole or part of the project located within 5 Km from the boundary of the PA, will require prior environment clearance from MoEF&CC is required.

² Notified ESZ or within 10 km of wildlife Sanctuary, where ESZ has not been finally notified.

³ Balaram Ambaji, Purna and Shoolpaneshwar.

Table 6.1: Violations of provisions during widening of Danta-Ambaji State Highway

Chainage	Type of land	Requirement of approval/ clearance	Observations
90/0 to 97/0	Forest land in ESZ area	Approval under FCA and clearance of NBWL	<ul style="list-style-type: none"> • Approval under the FCA was not received (November 2022). • No application for clearance from NBWL was submitted (November 2022).
97/00 to 97/480 and 101/400 to 102/325	Forest land in Sanctuary area	Approval under FCA and WPA	Work was commenced without receipt of prior approval under WPA and FCA, which were received later on (August 2019 and July 2020).
97/480 to 101/400 and 103/322 to 110/0	Forest land in ESZ area	Approval under FCA and clearance of NBWL	Though prior approval was obtained (September 2010) under FCA, no application was made for clearance from NBWL (November 2022).
110/0 to 112/510	Forest land in ESZ area	Approval under FCA and clearance of NBWL	No application was made for prior approval under FCA and clearance from NBWL (November 2022).

Further, in respect of Chainage ‘97/00 to 97/480 and 101/400 to 102/325’ as per approval under WPA received in July 2020, the user agency was to commence work only after approval of wildlife mitigation plan and modifying the road design as per animal passage plan. Since, the user agency had already commenced work before receipt of the above said approval, this was not only a violation of the provisions but also left no scope for modifications in the road design, if required. Moreover, though the DCF, Banaskantha had repeatedly instructed (between November 2019 and May 2021) the user agency to submit and get approval of the mitigation plan, the user agency did not submit such mitigation plan (November 2022). In the absence of suitable mitigation plan, wildlife was left vulnerable to the negative impacts of the project.

6.1.2 Widening of Vyara-Bhenskatri-Kalibel-Pimpri Road (passing through Purna Sanctuary and its ESZ area)

R&B Division, Ahwa (the user agency) issued a work order (19 November 2019) for widening (from existing 7 m to 10 m) of Vyara-Bhenskatri-Kalibel-Pimpri Road with stipulated date of completion as 18 May 2021. Portions of the widened road passed through forest area of Purna Sanctuary and its notified ESZ.

Audit observed that the project required prior permission under FCA for diversion of forest land, under WPA for diversion of Sanctuary land and also clearance of NBWL for executing the project in ESZ area. However, the user agency applied for permission in January 2021 under FCA and WPA only after the commencement of work and also completed⁴ the work before receipt of the requisite approvals. Audit observed that MoEF&CC accorded in-principle

⁴ As observed during joint site visit of the road along with the Range Forest Officer (RFO), Bhenskatri Range on 22 September 2021.

approval under FCA in July 2022. It was also observed that application for approval under WPA for executing the work in Sanctuary area was still pending (September 2022). Further, No Objection Certificate (NOC) was issued (June 2021) by the PCCF (WL) at his own level for executing the project in the ESZ area without mandatorily referring the matter to the competent authority i.e. NBWL.

The Guidelines issued by MoEF&CC (March 2019) provided that the vacant area in the existing Right of Way (RoW) which was subsequently notified as protected forest would require prior approval of the Central Government under the FCA for widening/ extension of the existing road. Audit observed that the user agency had applied for diversion of forest land under FCA for width of 0.25 m only (0.125 m on either side of the road) even though it had executed the widening of road for the width of 3 m (10 m minus 7 m). Thus, for widening of the entire stretch of the road, forest land of 3.1572 Ha was diverted. However, the user agency applied for approval for diversion of forest land of 0.3299 Ha only.

The Department stated (November 2022) that as per measurements done by its officials with the officials of R&B Department, the width of the road ranged between 8.30 m to 10.00 m, averaging to 9.60 m. The Department further contended that the user agency had executed the work within the permissible limit of 9.75 m, which was in accordance with the orders of the PCCF of August 2003 and hence, there was no violation of any prevailing provision.

The reply of the Department is not acceptable as the orders issued by PCCF in August 2003 were superseded by the Guidelines issued by MoEF&CC in March 2019.

6.1.3 Widening of Devalia to Rajpipla National Highway (passing through ESZ area of Shoolpaneshwar Sanctuary)

National Highway Division, Bharuch executed work of widening of 24 Km stretch of Devalia to Rajpipla section of National Highway 56 after getting prior approval for diversion of Protected Forest land on both side of the road under FCA in 2017.

Audit noticed that DCF, Social Forestry Division, Narmada while processing the application under FCA and forwarding his findings to Circle Office, incorrectly certified that the road was beyond 20 Km from the boundary of the Sanctuary. However, as per KML file of the Sanctuary and its ESZ as provided by the GIS cell of the Department, the road was situated at a distance of 2.5 Km from the boundary of the Sanctuary. Audit observed that DCF certified that the project site (or part thereof) was not located in ESZ area. Accordingly, DCF mentioned in the application that the project did not require environment clearance (EC) under the Environment (Protection) Act 1986. However, as per the KML file, out of the 24 Km stretch of the proposed road, approximately five Km stretch fell within the ESZ area of Shoolpaneshwar Sanctuary. Thus, certification by the DCF was factually incorrect.

On this being pointed out, the DCF, Social Forestry Division, Narmada accepted (September 2021) that the distance of the road from the Sanctuary was incorrectly stated as 20 Km and necessary action had been initiated to obtain *post-facto* permission/ EC to work in ESZ.

Thus, incorrect certification of the project location with respect to Sanctuary/ ESZ by the concerned authority led to non-submission of application for required clearance from NBWL and consequent absence of any wildlife mitigation plan for the road project. Jurisdictional forest division (i.e., Narmada Forest Division) also did not take cognizance of the fact and the work was executed without any clearance from NBWL.

The above instances of violations show that the Department did not have an adequate monitoring mechanism to deal with such aspects of non-forestry activities.

6.1.4 Action and levy of penalty due to violation of the provisions

Audit observed that MoEF&CC had issued (January 2018) Guidelines on the quantum of penalties to be imposed on activities which constitute violation of provision of the FCA, and Rules made thereunder. The quantum of penalties and action to be taken by the State authorities against the user agency for violation, and against the concerned forest officials for not being able to prevent use of forest land for non-forestry purpose, depends upon the nature/ category of violation.

Audit observed that the Department neither initiated any action nor imposed any penalty against the user agencies and concerned authorities in the case of the road projects mentioned above.

Recommendation 13: The Department may ensure proper scrutiny of the proposal for any development project, regarding project location with reference to protected area/ ESZ/ wildlife corridor and commencement of work may be allowed only after receipt of all the necessary permissions.

6.2 Ecotourism

Ecotourism is a non-forest activity and has both positive and negative impacts on wildlife. On the one hand, it brings about awareness of wildlife conservation among the people while on the other, it leads to disturbance to the wildlife and its habitat. Hence, the ecotourism in the Sanctuary can be promoted only up to a sustainable level to minimize its negative aspects.

The Gujarat Ecotourism Policy 2007 envisaged to promote nature based non-consumptive tourism and to provide for participation and flow of economic benefits to local people. The policy provided for site-specific management plan for each ecotourism site.

The MoEF&CC came out with the 'policy for ecotourism in forest and wildlife areas' in September 2018. The policy prescribed that ecotourism facilitation within the forest and wildlife areas shall be a part of the management or working

plan of the unit duly identifying locations, permissible activities, permissible time for visit and mode of travel.

6.3 Revision of Gujarat Ecotourism Policy 2007

Audit compared the provisions of the State policy of 2007 with the ‘policy for ecotourism in forest and wildlife areas’ issued by the MoEF&CC in September 2018 and observed the following:

- The policy of 2018 issued by MoEF&CC prescribes for identification of potential sites for ecotourism within the protected area and fixing the carrying capacity of the PA in terms of number of visitors, number of vehicles and duration of exposure. However, the State ecotourism policy prescribes for the estimation of carrying capacity of specific ecotourism sites only instead of fixing the overall carrying capacity of the entire PA.
- The MoEF&CC policy prescribes for imparting specialized training on ecotourism activities to enhance the capacity of local communities to function as nature guides. This includes training to discharge specialized tasks such as tourist guides, natural science interpreters, patrol partners, entrepreneurs for small scale homestead-based hospitality industry, etc. However, there is no provision for capacity building of local communities in the State policy. In the absence of policy provisions, only Dangs (North) Forest Division of the Department imparted/ facilitated capacity building trainings on nature interpretation, nature guide training, tourism site management and wildlife training during 2016-17 to 2019-20 whereas no such trainings were imparted/ facilitated by the other test-checked Divisions.

In view of the above, the State Ecotourism Policy was required to be updated/ modified as per the extant policy of MoEF&CC.

During the exit meeting (October 2022) the Department agreed to the absence of carrying capacity estimation. It further agreed to revise the Eco tourism policy of the State in consultation with the Gujarat Tourism Department.

6.4 Development of ecotourism sites within protected areas

As per Section 2 of the FCA as well as the clarification issued by MoEF&CC in October 2021, development/ construction of facilities of permanent nature, in forest areas for the purpose of ecotourism, is a non-forestry activity which requires prior approval of the Central Government. Moreover, as per Section 33 (a) of the WPA, any construction of commercial tourist lodges, hotels, zoos, and safari parks inside a Sanctuary requires prior approval of NBWL.

Audit observed that 10 ecotourism sites had been developed by the Department within the Jambughoda, Ratanmahal, Shoolpaneshwar, Purna and Jessore Sanctuaries. Out of these, Audit conducted joint site visits (between July and September 2021) of six ecotourism sites situated in four test-checked

Sanctuaries, and found that permanent structures were established at all these six sites. Details are mentioned in the table below:

Table 6.2: Ecotourism sites developed within test-checked Sanctuaries as of September 2022

Sl. No.	Eco tourism site	Year of Construction	Wildlife Sanctuary	Division Name
1	Dhanpari Eco tourism site	2006	Jambughoda	Vadodara wildlife Division
2	Kada dam tent site	2009		
3	Udhal Mahuda Eco tourism site	2009	Ratanmahal	
4	Sagai Eco tourism site	2008	Shoolpaneshwar	Narmada Wildlife division
5	Zarwani eco camp site	2009		
6	Mahal ecotourism camp site	2021	Purna	Ahwa Forest (North) division, Dang

A few of the permanent structures are shown below:

Photograph 6.1: Permanent structures in Sanctuaries areas noticed during joint site visit between July and September 2021



Mahal eco camp site (Purna)
Photograph taken on 21 September 2021

Dhanpari Ecotourism site (Jambughoda)
Photograph taken on 30 July 2021

For construction of permanent structures at these ecotourism sites, prior approval of Central Government/ NBWL was required. However, though asked for (October 2021) in Audit, the concerned Divisions did not furnish (as of November 2022) the details of approvals obtained, from the Central Government/ NBWL. In the absence of the same, it could not be ascertained whether the requisite approvals under FCA/ WPA were obtained before undertaking construction at all these ecotourism sites.

The Department did not provide the details of necessary approvals from the Central Government/ NBWL for establishing these sites (November 2022).

6.5 Tourism/ pilgrimage in the Sanctuaries

The six test-checked Sanctuaries are being visited by both tourists and pilgrims. The average number of tourists who visited these Sanctuaries annually during 2016-21 is tabulated below:

Table 6.3: Average number of tourists visited in the test-checked Sanctuaries on an annual basis during 2016-21

Name of the Sanctuary	Jessore	Balaram Ambaji	Jambu ghoda	Ratan mahal	Shool paneshwar	Purna
Average number of tourists	2,053	0	29,460	16,063	33,018	31,134

Source: Information furnished by the jurisdictional Division.

The Department informed that four out of the six test-checked Sanctuaries⁵ collected an aggregate amount of ₹ 3.79 crore towards entry fees, boarding and lodging charges and food charges etc. during 2016-21. In respect of Balaram Ambaji Sanctuary, the Department stated that no ecotourism facility existed in the Sanctuary, hence there was no collection of entry fees etc. while information in respect of Shoolpaneshwar Sanctuary was not furnished to Audit (November 2022).

Audit noticed that there are a few temples of prominence situated inside and outside three out of six test-checked Sanctuaries, namely Jessore, Balaram Ambaji and Jambughoda. The names of these pilgrim sites and approximate average number of tourists/ pilgrims visiting these places annually during the years 2016-21 is given in the table below:

Table 6.4: Pilgrim sites and approximate average number of tourists/ pilgrims on an annual basis during 2016-21

Name of the temple	Kedarnath temple	Muni ni kutia	Zand Hanuman	Ambaji Temple	Balaram Mahadev Temple
Name of the Sanctuary	Jessore	Jessore	Jambughoda	Outside Balaram Ambaji	Outside Balaram Ambaji
Annual average number of tourists/pilgrims	4,800	4,800	83,000	25-30 lakh	50-60 thousand

Source: Information furnished by the jurisdictional Division.

⁵ Jessore, Jambughoda, Ratanmahal and Purna.

The MEE report (2015-17) for Balaram Ambaji Sanctuary, identified the huge number of pilgrims and their defecation in the forest along the water sources as one of the management weaknesses which posed a threat of diseases to the wild animals and staff. Banaskantha Forest Division stated (January 2021) that the crowd was managed by Sanctuary staff to ensure wildlife protection and avoid human animal conflicts. It was also stated that plastic was banned in the Sanctuary area and other solid wastes were removed by NGOs, Temple trust, visitors, and local people.

During the joint site visit with jurisdictional RFO/ Foresters between July 2021 to September 2021, Audit observed that there was scope of improvement in the regulation of tourism/ pilgrimage activities in the Sanctuaries area and their surroundings. These are discussed in the succeeding paragraphs.

6.5.1 Pilgrimage at Zand Hanuman Temple

MEE Report (2017-18) of Jambughoda Sanctuary pointed out absence of a plan to manage visitors of the Zand Hanuman temple to reduce impact on Sanctuary. The Report suggested preparation of an ecotourism plan to address high number of pilgrims visiting the temple and ways of reducing its impact on the wildlife. However, the Department did not prepare any such plan as of October 2022. Further, the NBWL, while according approval (October 2005) under WPA for construction of ‘Bobdakuva-MotaRaska-Lambhiya-Zand Hanuman Road’ imposed various conditions, the compliance of which was to be ensured by the PCCF (WL) and the concerned DCF.

During joint site visit (August 2021) with jurisdictional RFO, Audit observed non-compliance of certain conditions of NBWL as mentioned in the table below:

Table 6.5: Status of Compliance to conditions of approval order for construction of road as on August 2021

Condition Number	Requirement	Status of implementation as observed during joint site visit and its likely impact
2	A check post was required to be created at village Lambhiya, where the road enters/ exits the wildlife Sanctuary.	No check post was established at Lambhiya. Absence of a check post is likely to result in unregulated inflow of pilgrims causing disturbance to the wildlife in the Sanctuary area.
5	The Zand Hanuman temple trust did not have right to make additions to the existing built-up structures. Temple boundary was to be fixed with reference to construction and area was to be demarcated on ground as well as on maps.	<p>The required demarcation was neither done on ground nor on maps. In the absence of demarcation of the temple boundary, there is possibility of unauthorized expansion and/ or encroachment in the nearby Sanctuary area.</p> <p>The Department stated (November 2022) that enumeration of existing shops had been done and no new shops would be allowed in future. However, no remarks</p>

Condition Number	Requirement	Status of implementation as observed during joint site visit and its likely impact
		were offered regarding demarcation of the temple boundary.
7	The DCF was required to supervise the use of temple funds collected from pilgrims to ensure that proportion of funds are being spent on solid waste management, clean water, toilet, and clean food facilities.	Improper solid waste management was observed. Coconut husk was being piled and burnt by the vendors in the temple campus. Solid waste piled in the surrounding area of the temple campus. This may have both physical and toxicological implications on wildlife of the Sanctuary beside risk of forest fire.
8	The wildlife Sanctuary manager was required to ban use of plastic in wildlife Sanctuary and put suitable notices for this purpose all along the road and at the check post.	<p>Though a ban on plastic in Sanctuary area was in place, Audit did not observe any noticeboard along the road and temple campus regarding the same. This implied that both the pilgrims and the vendors were not sensitized regarding ban on plastic usage. Audit noticed plastic bags littering in the Sanctuary area. The lack of effective implementation of ban on plastic may add to pollution, adversely affecting the wildlife.</p> <p>The Department stated (November 2022) that temple trust and village head had been sensitized regarding environment and ecology of surrounding areas and assurance had been obtained from the temple trust to ensure cleanliness in the temple surroundings.</p>

The following photographs depicts improper solid waste management in the Jambughoda Sanctuary.

Photograph 6.2: Coconut husk piled and being burnt near the Zand Hanuman Temple in Jambughoda Sanctuary



Source: Photograph taken during joint site visit on 30 July 2021.


Thus, non-compliance of the conditions imposed by NBWL reflects that the road as well as the pilgrim site needs to be properly monitored and managed.

6.5.2 Waste Management

Garbage dumping has both physical and toxicological implications on animal life. Plastics present in garbage gets ingested by wild animals, leading to lethal injuries and damage to digestive tract which results in starvation, ulceration of stomach, premature death, etc. Thus, management of waste is very important for wildlife conservation.

The observations in respect of waste management in three test-checked Sanctuaries as noticed during joint site visits (between July to September 2021) are detailed in the following table:

Table 6.6: Waste management in Sanctuaries

1. Shoolpaneshwar:	
No dustbins had been provided at the designated bus stop for ferrying tourists to Zarwani Adventure tourism site and thermocol plates were found littered in the nearby area.	
2. Ratanmahal:	
At Nagada Camp Site, garbage including plastics, food packets, cans of cold drinks and plastic bottles were found scattered.	
3. Purna:	
At Mahal Ecotourism site, the pit dug for temporary storage of waste was overflowing with solid plastic waste, banned inside the Sanctuary.	<div><p>Photograph 6.3: Solid waste including plastic overflowing the open pit adjacent to Mahal Eco tourism</p></div> <p>Source: Photograph taken during joint site visit on September 2021</p>

Hence, there was a need for proper waste management policy in the Sanctuaries. This will keep wildlife safe from the harmful effects of waste.

The Department stated (November 2022) that plastic items were being collected at the entry of the Ratanmahal Sanctuary while in Purna Sanctuary, plastic had been prohibited and necessary boards and signage established for awareness. In case of Shoolpaneshwar Sanctuary, the Department did not offer any remark.

6.5.3 Regulating tourism activities during mating and regeneration periods of wildlife

It is a well-established fact that wildlife should not be disturbed during its mating and regeneration periods and therefore keeping Sanctuaries open all through the year would prove detrimental to the conservation of the wildlife. Further, ban on tourist activities during these seasons would also facilitate forest staff to concentrate fully on management issues of the Sanctuaries.

All the six test-checked Sanctuaries were open to tourists throughout the year. During joint site visit, Audit also observed that the daily timings were not being enforced in the Shoolpaneshwar Sanctuary. Even though tourists were not allowed inside the Sanctuary after sunset, Audit noticed (September 2021) that tourists were present inside the Sanctuary even at dusk.

Photograph 6.4: Tourists during dusk (6.45 PM) in the Piplod Range of Shoolpaneshwar Sanctuary



Source: Photograph taken during joint site visit on 08 September 2021.

Thus, daily timings prescribed for tourist visit in the Sanctuary area were not being enforced. This may adversely affect the wildlife in the Sanctuary area.

6.5.4 Lack of site-specific ecotourism plans and unregulated tourism activities

The current management plans in respect of the six test-checked Sanctuaries were framed after the formulation of the Gujarat Ecotourism Policy 2007. However, the Management Plans of these Sanctuaries did not have site-specific ecotourism plans for regulation of the tourism activities within the Sanctuaries as provided in the policy.

Audit observed (November 2021) that the Department neither devised any monitoring mechanism for regulated access nor fixed the carrying capacity of the respective Sanctuary based on scientific study as required in the Gujarat Ecotourism Policy. In the absence of such plans/ monitoring mechanism, there was no ceiling on the number of visitors and vehicles entering the Sanctuaries.

Further, the impact of tourism on the natural environment and pollution was not monitored. This could have an adverse effect on wildlife in the Sanctuaries.

The Department agreed (November 2022) to prepare site specific ecotourism plans.



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The 14-08-2023

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