

Executive Summary

Biodiversity loss is a global phenomenon today. Rapid loss of biodiversity has been mainly attributed to anthropogenic activities. Habitat destruction in the name of development like hydel projects, encroachments of forest lands, expansion of agricultural activities, fragmentation of forests, *etc.*, leading to human wildlife conflicts, poaching, invasion of alien weed species, *etc.*, are the chief causes for biodiversity loss. Habitats can either disappear completely or they may become degraded/fragmented, both causing serious impact on species as well as ecosystem processes.

India has a forest cover of 21.34 *per cent* and Karnataka has 19 *per cent* of forest cover. Western Ghats region running through six states of (Southern) India including Karnataka is identified as one of the 35 Biodiversity hotspots in the world for its high degree of endemism. It has also been inscribed as a World Heritage Site by United Nations Educational, Scientific and Cultural Organisation in 2012. Further, the Nilgiri Biosphere Reserve is one of the oldest Biospheres of the Country and in Karnataka, the Nilgiri Biosphere is interspersed with Western Ghats in the southern part of the State. These regions are home to wide variety of flora and fauna including endemic and endangered species. The State boasts of the highest number of tigers and elephants in the country. However, increased human population coupled with fragmentation and degradation of forests is causing pressure on these fragile ecosystems, which is evident from increase in Human Wildlife Conflicts, regular occurrence of forest fires, proliferation of invasive weed species, *etc.*

A Performance Audit on “Administration of National Parks and Wildlife Sanctuaries in Karnataka” was conducted by focusing on 14 sampled National Parks and Wildlife Sanctuaries of Western Ghats-Nilgiri Biosphere Reserve region to assess the impact of intrusive activities and study the role and efforts of the management in minimising the same. Major audit findings are given below:

Human Wildlife Conflicts continued to be of major concern and the mitigation measures undertaken by the Forest Department did not have any major impact. Elephants require large feeding ranges and use specified migration paths for movements which are affected by fragmentation. The increased agricultural/developmental activities also contributed to Human Wildlife Conflicts. To reduce such events and as a long term measure, corridors connecting forests is the need of the hour. Five such corridors were identified for strengthening in the Western Ghats-Nilgiri Biosphere Reserve region, more than a decade ago, but their strengthening had not fructified.

(Paragraph 4.2.1)

Expansion of three Protected Areas approved by National Board for Wildlife between 2011 and 2013 had not been notified.

(Paragraph 4.2.2.1)

In and around six Protected Areas, 51 resorts and hotels and 50 homestays were operating, out of which, 44 resorts / hotels and 15 homestays had not

received approval of the Forest Department. Of this, four resorts were located in the elephant corridor and five resorts / hotels were found to be functioning inside enclosures contrary to Wilderness Tourism Policy. A coffee plantation located inside Biligiri Ranganathaswamy Temple Tiger Reserve was operating beyond the lease period.

(Paragraph 5.3)

The encroachment of forests in Karnataka increased from 42,518 *acres* to 2,04,442 *acres* between 1995 and 2014. In 14 selected Protected Areas, 4,393 families had encroached upon an area of 9,524 *acres* as of March 2016 but only 1,384 forest offence cases were booked. In respect of Bandipur and Nagarhole Tiger Reserves, it was noticed that extent of encroachment was short reported by 1,686 and 148 *acres* respectively.

(Paragraph 6.1.1)

Though an action plan had been submitted to High Court of Karnataka to evict encroachments to an extent of 1,041 *acres* by July 2015, the encroachment cleared was 469 *acres* only. Against a total of 2,510 applications received for rehabilitation / relocation in four Protected Areas, 1,357 families had been rehabilitated. The delay in rehabilitation in Bhadra Tiger Reserve was mainly on account of non-availability of funds.

(Paragraph 6.1.3 and 6.3)

As per National Tiger Conservation Authority, out of 26 tigers poached in the country during 2011-16, nine were reported from Karnataka. However, the details furnished by the Divisions indicated only one case of tiger poaching during the same period.

(Paragraph 7.1)

A total of 50 road-kills were recorded during the five year period in the fourteen sampled Protected Areas of which no recordings were noticed in five Protected Areas. This stood in sharp contrast to the fact that a 45 day monitoring by the Kudremukh Wildlife Division indicated 1,338 road-kills.

(Paragraph 7.3)

For the forest fires which occurred during 2012 in Bandipur and Nagarhole Tiger Reserves, it was noticed that burnt area assessment done by the Divisions was very conservative as compared to the reported assessment of Principal Chief Conservator of Forests. The under assessments were also observed in Nagarhole Tiger Reserve during 2014 where the initial assessment of 60 hectares was later enhanced to 179 hectares based on ground truthing. The revised assessment was almost equal to the satellite based assessment of 172 hectares.

(Paragraph 8.1.1)

Though invasive alien weed species like *Lantana camara*, *Parthenium*, *Eupatorium*, *Chromolaena odorata* had become major threats in six Protected Areas, no major initiatives were taken to address the problem.

(Paragraph 8.2)

Research, being an important activity for better maintenance of Protected Areas, was not given adequate importance. In respect of permissions accorded for research / studies inside Protected Areas, as against 129 permissions including 18 ongoing projects, reports were received in respect of only nine projects. Though data on some species like tiger, elephants, leopard and lion-tailed macaque were available, the Protected Areas did not have data on other lesser known mammals.

(Paragraph 9)

There was delay in preparation of Management Plans / Tiger Conservation Plans in seven Protected Areas. While deficient coverage of issues relating to Human Wildlife Conflicts was noticed in four Management Plans / Tiger Conservation Plans, areas / locations for implementation of strategies were not identified in Management Plans / Tiger Conservation Plans.

(Paragraph 10.1.1)

The forest area per personnel was higher for other Protected Areas than the Tiger Reserves. Out of 401 arms supplied to Protected Areas, 156 were not functional and out of 1,187 wireless equipments supplied, 355 were not functional.

(Paragraph 11.2 and 11.4)