Chapter 2

Audit approach

2.1 Audit Objectives

Objectives for this Performance Audit are to assess whether:

- Protection and Conservation of Wildlife, including their habitats, were adequately planned for and implemented in the administration of the Protected Areas, by examination of
 - Management Plan / Tiger Conservation Plan, its implementation and impact assessment of measures implemented,
 - Consolidation of boundaries, status of encroachments and rehabilitation of persons living inside Protected Areas,
 - Research and implementation of research findings done by the Department and other agencies, and
 - Management of Resources (Manpower and Financial)
- **❖** Adequate measures were taken to address issues relating to biotic interference ¹² and anthropogenic threats in the Protected Areas with reference to
 - Human Wildlife Conflict and Corridors,
 - Forest fire, unnatural deaths and road-kills,
 - Patrolling, anti-poaching camps and poaching,
 - Tourism, resorts and other commercial activities.

2.2 Audit coverage and Methodology

The Western Ghat / Nilgiri Biosphere Reserve region is home to several endemic and endangered species and contributes a great degree to the forest cover of the state. Because of its ecological importance, Western Ghats has been inscribed as a World Heritage Site. In view of the endemism / importance of the region, it becomes necessary to conserve these Wildlife Habitats. Therefore, 14 Protected Areas of the region were selected for Performance Audit.

Review of records relating to three National Parks and 11 Wildlife Sanctuaries¹³ situated in the Western Ghat and Nilgiri Biosphere Reserve for the period 2011-12 to 2015-16 was carried out by test check of records at the

¹² The pressure of foreign biological organisms like cattle, weeds, human, *etc.*, on the forest species

¹³Bandipur, Kudremukh, Nagarahole NPs, Dandeli-Anshi, Bhadra, Biligiri Ranganathaswamy Temple (BRT), Brahmagiri, Cauvery, Malai Mahadeswara Hills, Mookambika, Pushpagiri, Sharavathi, Someshwara and Talacauvery WLSs.

offices of Secretariat, Principal Chief Conservator of Forests (Wildlife) and the field level offices relating to the selected National Parks and Wildlife Sanctuaries. Data were collected through analyses of documents, response to audit queries / questionnaires / proformae. These were supplemented by information furnished by other stakeholders. In addition, satellite based assessment of land use land cover analysis in and around sampled Protected Areas and encroachments in them were got done through Indian Institute of Science. For this purpose, maps and satellite imageries were obtained from Karnataka Forest Department, Karnataka State Remote Sensing Applications Centre and National Remote Sensing Centre.

An Entry Conference was held with the Additional Chief Secretary to Government, Department of Forest, Ecology and Environment to discuss the audit objectives, criteria and scope on 25 April 2016. The audit findings were discussed in the Exit Conference held with the Additional Chief Secretary to Government, Department of Forest, Ecology and Environment on 23 March 2017. Government responses have been suitably incorporated in the report.

2.3 Audit Criteria

The following were used as sources of audit criteria for this Performance Audit:

- 1. Wildlife (Protection) Act, 1972,
- 2. Forest (Conservation) Act, 1980,
- 3. Environment (Protection) Act, 1986,
- 4. National Wildlife Strategy, 2002,
- 5. National Wildlife Action Plan 2002-2016,
- 6. Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006,
- 7. Supreme Court, National Green Tribunal and High Court orders and other directions.
- 8. Codes and Manuals of Karnataka Forest Department,
- 9. Guidelines issued by Wildlife Institute of India, National Tiger Conservation Authority for preparation of Management Plan / Tiger Conservation Plans,
- 10. Scheme guidelines and other orders, instructions, action plans, strategies issued by Government of India, Government of Karnataka, Karnataka Forest Department, and
- 11. Research / study reports of Indian Institute of Science (IISc), Wildlife Institute of India, Salim Ali Institute for Conservation of Nature, Nature Conservation Foundation, Convention on International Trade in Endangered Species, International Union for Conservation of Nature, Wildlife Conservation Society, etc.

2.4 Acknowledgement

Audit acknowledges the co-operation extended by the staff of Karnataka Forest Department, Indian Institute of Science, Karnataka State Remote Sensing Agency, Karnataka State Survey and Land Records Department and Non-Government Organisations in conduct of this Performance Audit.

Audit Findings

The ever increasing human population coupled with various development activities have fragmented the very habitat of wildlife leading to Human Wildlife Conflicts (HWC), encroachment, poaching, forest fires, etc., which in turn have become the biggest challenges to the department to contain and find a solution. Though the Department has done well to stabilise the populations of tigers and elephants in the State, the preparedness to tackle these increased populations was absent which has resulted in increased HWC. The Department has also failed to notify certain areas which were approved by National Board for Wildlife (NBWL) for expansion of Protected Areas (PA), which could have connected other PAs and reduced HWC. Commercial activities were observed in eco-sensitive zones and corridors of PAs which will have negative impact on the wildlife and its conservation. Research is one of the main component of PA development, however, the lack of approach by the Department in this regard could be observed from the fact that the basic data of many lesser known species were absent and though many scientists and researchers are recording new species especially the amphibians and birds, these were not mentioned in Management Plans (MP) / Tiger Conservation Plans (TCP). The progress regarding action taken on encroachment and rehabilitation was slow and needs to be intensified. It was observed that there were differences in Department and Divisional data regarding the extent of forest fires and this need to be verified by ground truthing. Some of the MP / TCPs were not prepared in time which needs to be prepared well in advance of the expiry of the old MP / TCPs.