



Executive Summary

Protection and conservation of the environment is increasingly becoming important, especially in light of observed climate change which has devastating consequences for the survival of humanity. In this context, effective environmental governance by the Executive is of utmost importance. Accordingly, the thrust of this Audit Report is to highlight issues relating to the adequacy and effectiveness of programmes, schemes and interventions made by the Ministry of Environment and Forests to tackle important environmental issues like deforestation, biodiversity, control of pollution etc. This Report also contains 37 specific recommendations. The findings of audit and the recommendations made in this Report are expected to enable the Executive to take corrective action as also to frame policies and directives that will lead to improved environmental governance.

Chapter 1, in addition to explaining the planning and extent of audit, provides a synopsis of general audit findings, the significant audit observations reported in Audit Reports, position of outstanding utilisation certificates, brief analysis of the expenditure of Ministry of Environment and Forests (MoEF), significant deficiencies in accounts of autonomous bodies and the follow up of Audit Reports.

Chapters 2 to 5 present the findings/observations relating to environmental issues arising out of the audit of Ministry of Environment and Forests (MoEF) which is the nodal ministry in the Government of India for environmental issues. The audit findings have been discussed under separate thematic headings relating to Afforestation, Biodiversity, Pollution Control and Environmental Education.

An overview of the specific audit findings and key audit recommendations included in this Report is given below:

Theme: AFFORESTATION

Failure of a scheme for increasing tree cover (Paragraph 2.1)

Audit findings

National Afforestation and Eco-Development Board (NAEB) released ₹47.03 crore to Voluntary Agencies (VAs) and State Forest Departments (SFDs)/Forest Development Agencies (FDAs) for implementing 647 afforestation projects. Audit observed that only 3.57 *per cent* of the projects sanctioned to VAs and 23 *per cent* of the projects sanctioned to SFDs/FDAs could be completed. As these agencies did not come back to NAEB for release of further installments, the possibility of misutilisation/fraud could not be ruled out. More than 93 *per cent* of the projects did not achieve their targeted objectives; thereby seriously impacting the efforts to increase tree cover in India.

Key audit recommendations

- A thorough investigation into the utilisation of funds may be conducted by the MoEF and appropriate action taken against the defaulting agencies.
- Deficiencies in the implementation of Greening India Scheme should be addressed effectively in the proposed new Scheme for afforestation, so that the desired objectives of afforestation and increasing tree cover in India could be achieved.

Non-achievement of objective of developing forest resources (Paragraph 2.2)

Audit findings

National Afforestation and Eco-Development Board (NAEB) released ₹64 lakh to three Forest Development Agencies (FDAs) in Goa under the National Afforestation Programme for treating 1250 hectares of degraded forest land. However, only 85 hectares of land could be treated during the Tenth Plan period. NAEB could neither ensure successful implementation of the programme in the state nor recover the entire grant of ₹64 lakh and interest of ₹32 lakh from the concerned FDAs under the state government.

Key audit recommendation

- *Funds should be released to the implementing agencies in installments and before entrusting funds, MoEF should adequately assess the capacity of agencies in project implementation so that achievement of project objectives could be ensured.*

Theme: BIODIVERSITY

Regulation of Biodiversity in India (Paragraph 3.1)

Audit findings

National Biodiversity Authority (NBA) was established in 2003 by the Government of India for the regulation, conservation and sustainable use of bio-resources of India. Even six years after its formation, NBA could not notify important regulations like access to biodiversity, transfer of results of research and intellectual property rights etc. Lists of endangered medicinal plants in India and measures for their conservation were not drawn up. NBA's efforts in identifying threatened, endangered and endemic species and recommending guidelines for their conservation were inadequate as list of endangered species was prepared for only seven out of 28 states. It also failed to get the Peoples' Biodiversity Registers and database of biological resources prepared, both of which were vital for efforts at protection and conservation of biological resources. It had no information on grant of Intellectual Property Rights outside India on any biological resource obtained from India or knowledge associated with such biological resources which is derived from India.

Key audit recommendations

- *In order to effectively protect and conserve species that are on the verge of extinction or are likely to face extinction in the near future, NBA and MoEF may intensify their efforts, after ensuring cooperation from the states, to prepare the list of threatened, endangered and endemic species and to recommend regulations for their conservation.*
- *NBA may develop guidelines for documentation of local biodiversity, bio-resources and associated traditional knowledge and document a few selected areas/fields of 'traditional knowledge' for commercial exploitation.*
- *NBA may urgently set up a monitoring cell to keep track of IPRs granted outside India.*

Role of Botanical Survey of India in meeting India's commitments to the Convention on Biological Diversity *(Paragraph 3.2)*

Audit findings

The Convention on Biological Diversity (CBD) was ratified in 1994 by 150 countries including India. To implement the provisions of CBD, objectives of Botanical Survey of India (BSI) were remodeled. However, BSI was not effective in meeting its remodeled objectives as there was inadequate identification/ documentation and monitoring of plant species. Very few surveys and explorations were carried out to identify and document the Protected Areas and Fragile ecosystems. The Red Data Book was updated in 1990 and last updated version was printed in 2003 thereby impacting conservation efforts. Further, identification of different ethnic groups associated with usage of plant species for different purposes was not done. BSI did not generate adequate data for in-situ conservation and it did not carry out ex-situ conservation, which impacted conservation of biodiversity. As such, BSI could not effectively fulfill its role in meeting India's commitment to CBD.

Key audit recommendations

- *Ministry of Environment and Forests needs to ensure that all necessary infrastructure is provided to BSI to effectively ensure conservation of precious biodiversity and also to meet its commitments to CBD.*
- *BSI may strengthen its efforts to increase its survey and exploration activities so that the results can be disseminated for developing management plans and effectively conserving the Protected Areas.*
- *In order to ensure that locally endemic species particular to a Hotspot are identified and conserved, it is recommended that special attention be paid to comprehensive survey and documentation of Hotspots.*
- *BSI needs to increase its activities and undertake more schemes for identification, exploration and documentation of phytodiversity of Fragile ecosystems, so that the Fragile ecosystems can be effectively conserved.*

Theme: POLLUTION CONTROL

Non-achievement of objectives of Ecocity Programme *(Paragraph 4.1)*

Audit findings

Central Pollution Control Board (CPCB) initiated the 'Ecocity Programme' at a total cost of ₹30 crore under the Tenth Five Year Plan for implementation in six cities which were selected for the first phase of the programme in view of their cultural/historical/heritage and tourism importance. Works undertaken under the programme remained incomplete in all selected six cities and ₹1.88 crore was lying unspent with State Pollution Control Boards for over seven years. Thus, the objectives of the programme which were to improve the environment and bring in visible results through implementation of identified environmental improvement projects in selected towns and cities were not achieved.

Key audit recommendation

- *CPCB/MoEF should strengthen the project implementation mechanism and its control/ monitoring mechanism before the second phase of the programme is launched, so that it can effectively achieve the objectives set out for the Ecocity programme and improve facilities for tourists/pilgrims.*

Non-achievement of objectives of control of pollution caused by leather tanneries (Paragraph 4.2)

Audit findings

National River Conservation Directorate (NRCD) sanctioned interest-free loan of ₹67.72 crore to Government of West Bengal for construction of a Common Effluent Treatment Plant at Bantala, about 20 km south-east of Kolkata. The project was originally targeted for completion by November 1997 but could not be completed as of June 2010. NRCD has sanctioned only four out of seven components under the project as yet. Delay of more than 12 years in completion of the project adversely impacted the objective of ensuring safe disposal of toxic industrial effluents and solid waste from tanneries, causing immense environmental damage and health risks.

Key audit recommendation

- *MoEF may monitor execution of the project more closely to ensure its speedy completion and achievement of planned objectives in a time bound manner. MoEF may impose heavy penalties/close tanneries in case the tanneries do not route their effluents through Effluent Transportation System and Common Effluent Treatment Plant so that the damage to the environment is minimised.*

Theme: ENVIRONMENTAL EDUCATION

Activities of National Museum of Natural History, New Delhi (Paragraph 5.1)

Audit findings

National Museum of Natural History (NMNH) was set up to promote environmental education all over the country. Its collections were old and archaic and its galleries/exhibits had not been changed/updated in the last 20 years. It had not developed any museum based projects and its activities in reaching out to children to educate them about environment and conservation were extremely limited. It had not undertaken any research and had failed to develop linkages with other agencies working in this area. Review of activities of NMNH lead to the conclusion that NMNH did not justify its status of being a 'national' museum in light of its poor quality of exhibits and its amateurish efforts in the field of promoting environmental education in the country.

Key audit recommendations

- *NMNH may develop user friendly and high quality museum based educational material for children and adults, which would help it in effectively promoting environmental education. NMNH may regularly update its exhibits and organise temporary exhibitions regularly besides increasing the use of IT tools and multimedia like touch screens into the museum experience which will enable visitors to have easier and more enriching sources of information and knowledge.*
- *NMNH needs to pay serious attention a improvement of galleries and their exhibits so that they can achieve the highest level of quality to promote environmental education at a national level.*
- *NMNH needs to appoint an adequate number of guides for explaining the concepts displayed in the galleries which are spread over four floors of the building and thus educating young school children and general visitors in environment concepts. NMNH also needs to provide basic amenities to the visitors so that visits to the museum could be a comfortable and enriching experience.*