



# ANNUAL REPORT

## 2025-26



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## ABBREVIATIONS

AICOPTAX	:	All India Coordinated Project on Capacity Building in Taxonomy
A.W	:	Animal Welfare
BSI	:	Botanical Survey of India
BUR	:	Biennial Update Report
CAMPA	:	Compensatory Afforestation Fund Management and Planning Authority
CBD	:	Convention on Biological Diversity
CDM	:	Clean Development Mechanism
CES	:	Centre for Ecological Science
CMW	:	Conservation and Management of Wetlands
COP	:	Conference of the Parties
CPA	:	Control of Pollution Air
CPB	:	Cartagena Protocol on Biosafety
CPCB	:	Central Pollution Control Board
CPW	:	Control of Pollution Water
CRZ	:	Coastal Regulation Zone
CSD	:	Commission on Sustainable Development
CT	:	Clean Technology
DSS	:	Decision Support System
DTEPA	:	Dehanu Teluka Environment Protection Authority
EIVR	:	Entities of Incomparable Value Regulations
ENVIS	:	Environmental Information System
EPTRI	:	Environment Protection Training & Research Institute
ESA	:	Ecologically Sensitive Areas
GBPNIHE	:	G.B. Pant National Institute of Himalayan Environment
GEAC	:	Genetic Engineering Approval Committee
GEF	:	Global Environment Facility
GIM	:	Green India Mission
GLOBE	:	Global Learning & Observation to Benefit the Environment

GOI	:	Government of India
GSDP	:	Green Skill Development Programme
HSMD	:	Hazardous Substance Management Division
ICIMOD	:	International Centre for Integrated Mountain Development
IFS	:	Indian Forest Service
IGPP	:	Indira Gandhi Paryavaran Puraskar
INCCA	:	Indian Network for Climate Change Assessment
IPCC	:	International Panel on Climate Change
MBP	:	Man and Biosphere Programme
MoEF&CC	:	Ministry of Environment, Forest and Climate Change
NATCOM	:	National Communication
NBA	:	National Biodiversity Authority
NBAP	:	National Biodiversity Action Plan
NCZMA	:	National Coastal Zone Management Authority
NEPRI	:	National Environmental Protection Training and Research Institute
NESFP	:	National Environmental Science Fellows Programme
NFA	:	National Fellowship Awards
NFAP	:	National Forestry Action Programme
NFC	:	National Forest Commission
NGO	:	Non Governmental Organisation
NGRBA	:	National Ganga River Basin Authority
NGT	:	National Green Tribunal
NLCP	:	National Lake Conservation Plan
NMCG	:	National Mission on Clean Ganga
NMNH	:	National Museum for Natural History

## ABBREVIATIONS

NNRMS	:	National Natural Resources Management Systems
NTCA	:	National Tiger Conservation Authority
NZP	:	National Zoological Park
OC	:	Ozone Cell
OL	:	Official Language
PE	:	Project Elephant
PG	:	Public Grievances
PT	:	Project Tiger
RE	:	Research in Environment
RFD	:	Results Framework Document
RO	:	Regional Office
ROHQ	:	Regional Office Head Quarter
RT	:	Research & Training
RTI	:	Right to Information
SACON	:	Salim Ali Centre for Ornithology & Natural History
SBA	:	Swachh Bharat Abhiyan
SD	:	Sustainable Development

SDG	:	Sustainable Development Goals
SICOM	:	Society for Integrated Coastal Management
SOER	:	State of Environment Report
STP	:	Sewage Treatment Plants
TOF	:	Trees Outside Forest
UNCCD	:	United Nations Convention to Combat Desertification
UNDP	:	United Nations Development Programme
UNEP	:	United Nations Environment Programme
WCCB	:	Wildlife Crime Control Bureau
WED	:	World Environment Day
WGEEP	:	Western Ghat Ecology Expert Panel
WHC	:	World Heritage Conservation
WII	:	Wildlife Institute of India
ZSI	:	Zoological Survey of India

# ROLE AND MANDATE OF THE MINISTRY



The Ministry of Environment, Forest and Climate Change (MoEF&CC) is the nodal agency in the Central Government for overseeing the implementation of India's environment and forest policies and programmes relating to conservation of the country's natural resources including lakes and rivers, its biodiversity, forests and wildlife and prevention and abatement of pollution as well as for designing strategies for climate change adaptation and resilience. While implementing these policies and programmes, the Ministry is guided by the principle of sustainable development. The Ministry is also the nodal agency for the United Nations Environment Programme (UNEP), South Asia Co-operative Environment Programme (SACEP), International Centre for Integrated Mountain Development (ICIMOD) and the United Nations Conference on Environment and Development (UNCED). The Ministry also coordinates with multilateral bodies such as the Commission on Sustainable Development (CSD), Global Environment Facility (GEF) and regional bodies such as Economic and Social Council for Asia and Pacific (ESCAP) and South Asian Association for Regional Cooperation (SAARC) on matters pertaining to environment. Further, the ministry is also the Nationally Designated Authority for Green Climate Fund (GCF), Adaptation Fund and the Fund for Responding Loss & Damages (FLRD). A national Compensatory Afforestation Fund Management and Planning Authority (CAMPA) has been constituted to lay down guidelines for State CAMPA, monitor/assist/ and provide recommendations to State CAMPA and resolve issues.

The broad objectives of the Ministry are :

- Conservation and survey of flora, fauna, forests and wildlife
- Afforestation and regeneration of degraded areas

- Protection of environment and wildlife
- Coordination for Country's action plan to combat Climate Change
- Prevention and control of pollution
- Facilitate activities related to India's commitments and obligations with three Rio Conventions i.e. United Nations Framework Convention on Climate Change (UNFCCC), United Nations Convention to Combat Desertification (UNCCD) and Convention on Biological Diversity (CBD) and related reporting process.
- Facilitate activities related to Basel, Rotterdam, Stockholm Conventions and enable India to meet its commitments as per Montreal Protocol under the Vienna Convention

These objectives are well supported by a set of legislative and regulatory measures, aimed at the preservation, conservation and protection of the environment, forests and wildlife. Besides the legislative measures, a National Conservation Strategy and Policy Statement on Environment and Development, 1992; National Forest Policy, 1988; a Policy Statement on Abatement of Pollution, 1992; National Environment Policy, 2006 and National Action Plan on Climate Change (NAPCC) also guide the Ministry's work.

### **Subject under the Ministry of Environment, Forest and Climate Change**

The following items of work have been allocated to the Ministry of Environment, Forest and Climate Change as per the (Allocation of Business) Rules, 1961 available on the website of Cabinet Secretariat (last amended on 25.08.2025).

### **MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE (PARYAVARAN, VAN AUR JAL VAAYU PARIVARTAN MANTRALAYA)<sup>[1]</sup>**

1. Environment and Ecology, including envi-

[1] Modified vide Amendment series no. 306 dated 31.07.2014

- ronment in coastal waters, in mangroves and coral reefs but excluding marine environment on the high seas.
2. Environment Research and Development, education, training, information and awareness.
  3. Environmental Health.
  4. Environmental Impact Assessment.
  5. Forest Development Agency and Joint Forest Management Programme for conservation, management and afforestation.
  6. Survey and Exploration of Natural Resources particularly of Forest, Flora, Fauna, Ecosystems etc.
  7. Bio-diversity Conservation including that of lakes and Wetlands.
  8. Omitted.<sup>[2]</sup>
  - 8A. Omitted.<sup>[3]</sup>
  9. Wildlife conservation, preservation, protection planning, research, education, training and awareness including Project Tiger and Project Elephant.
  10. International co-operation on Issues concerning Environment, Forestry and Wildlife.
  11. Botanical Survey of India and Botanical Gardens.
  12. Zoological Survey of India.
  13. National Museum of Natural History.
  14. Biosphere Reserve Programme.
  15. National Forest Policy and Forestry Development in the country, including Social Forestry.
  16. All matters relating to Forest and Forest Administration in the Union territories.<sup>[4]</sup>
  17. Indian Forest Service.
  18. Wild Life Preservation and protection of wild birds and animals.
  19. Fundamental and applied research and training including higher education in forestry.
  20. Padmaja Naidu Himalayan Zoological Park.
  21. National Assistance to Forestry Development Schemes.
  22. Indian Plywood Industries Research and Training Institute, Bangalore.
  23. Afforestation and Eco-Development which shall include National Afforestation and Eco-Development Board.
  - 23A. Bio-fuel plantations in forest, wastelands and environmental issues concerning bio-fuels.<sup>[5]</sup>
  24. Desert and Desertification.
  25. Forest Survey of India.
  26. Indian Institute of Bio-diversity, Itanagar.
  27. Central Pollution Control Board.
  28. G.B.Pant Institute of Himalayan Environment & Development.
  29. Wildlife Institute of India and Indian Board for Wildlife.
  30. Indian Institute of Forest Management.
  31. Central Zoo Authority including National Zoo Park.
  32. Indian Council of Forestry Research & Education.
  33. Andaman and Nicobar Islands Forest and Plantation Development Corporation Limited.
  34. Omitted.<sup>[6]</sup>
  35. Omitted.<sup>[7]</sup>

[2] Omitted vide Amendment series no. 350 dated 14.06.2019 (Earlier substituted vide Amendment series no.306 dated 31.07.2014).

[3] Omitted vide Amendment series no. 350 dated 14.06.2019 (Earlier inserted vide Amendment series no.306 dated 31.07.2014).

[4] Modified vide Amendment series no. 300 dated 26.02.2012

[5] Inserted vide Amendment series no. 287 dated 12.07.2006

[6] Omitted vide Amendment Series no. 349 dated 04.04.2019 (transferred to D/o Animal Husbandry and Dairying).

[7] Omitted vide Amendment Series no. 349 dated 04.04.2019 (transferred to D/o Animal Husbandry and Dairying).

- |   |   |
|---|---|
| <p>36. Omitted. <sup>[8]</sup></p> <p>36A. Climate change and all other matters related thereto.<sup>[9]</sup></p> <p>37. Omitted. <sup>[10]</sup></p> <p>38. Omitted. <sup>[11]</sup></p> <p>39. Omitted. <sup>[12]</sup></p> <p>40. The Water (Prevention and Control of Pollution) Act, 1974 (6 of 1974).</p> <p>41. The Water (Prevention and Control of Pollution) Cess Act, 1977 (36 of 1977).</p> <p>42. The Air (Prevention and Control of Pollution) Act, 1981 (14 of 1981).</p> <p>43. The Indian Forest Act, 1927 (16 of 1927).</p> <p>44. The Wild Life (Protection) Act, 1972 (53 of 1972)</p> | <p>45. The Forest (Conservation) Act, 1980 (69 of 1980).</p> <p>46. The Environment (Protection) Act, 1986 (29 of 1986).</p> <p>47. The Public Liability Insurance Act, 1991 (6 of 1991).</p> <p>48. The National Green Tribunal Act, 2010 (19 of 2010).*</p> |
|---|---|

NOTE:- The Ministry of Environment, Forest and Climate Change will be responsible for overall policy in relation to forests, except all matters, including legislation, relating to the rights of forest dwelling Schedule Tribes on forest lands.\*\*

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[8] Omitted vide Amendment Series no. 349 dated 04.04.2019 (transferred to D/o Animal Husbandry and Dairying).

[9] Inserted vide Amendment series no. 306 dated 31.07.2014.

[10] Omitted vide Amendment Series no. 349 dated 04.04.2019 (transferred to D/o Animal Husbandry and Dairying).

[11] Omitted vide Amendment Series no. 334 dated 06.07.2017.

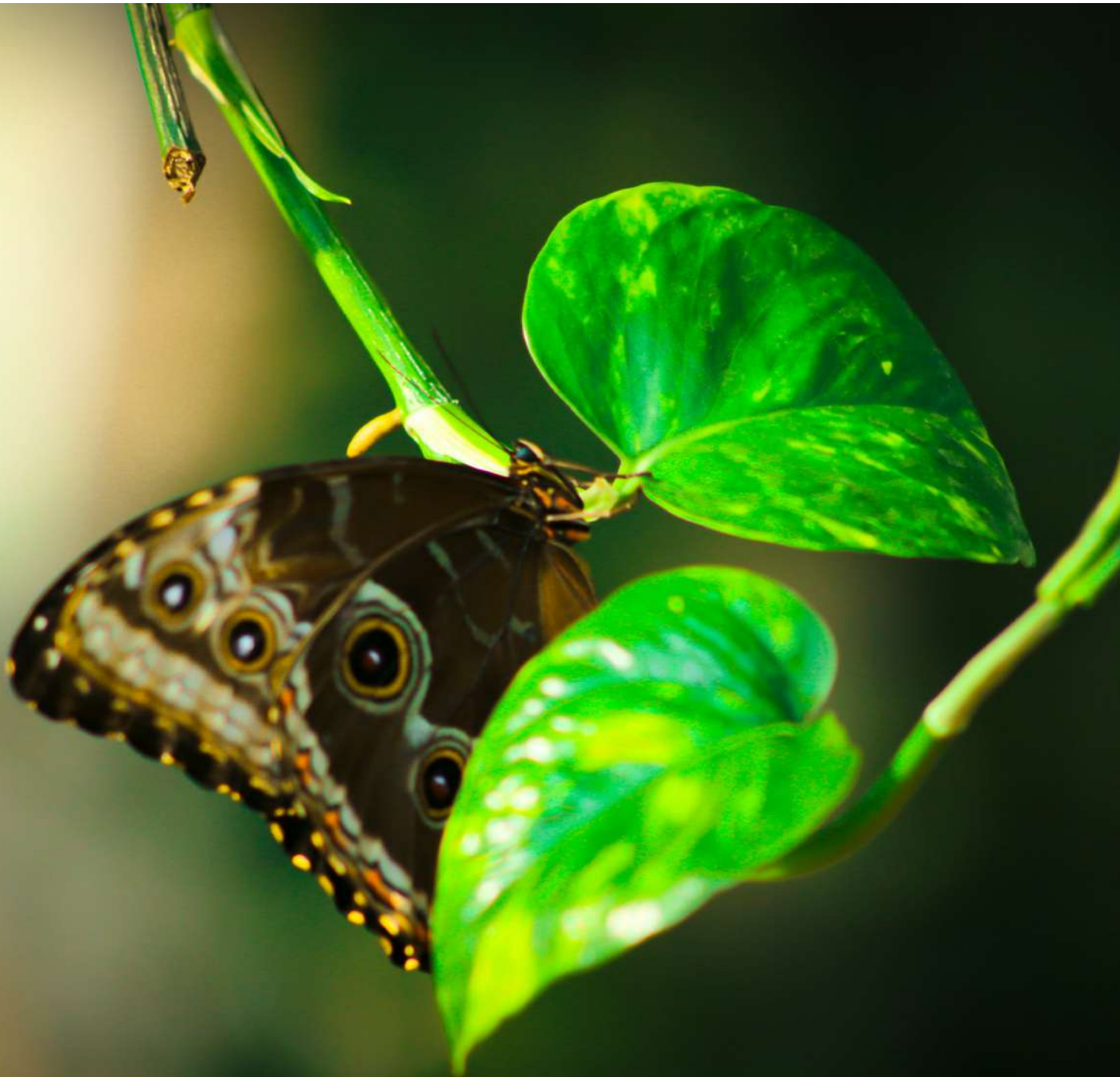
[12] Omitted vide Amendment Series no. 334 dated 06.07.2017.

\* Inserted vide Amendment series no. 334 dated 06.07.2017.

\*\* Inserted vide Amendment series no. 285 dated 17.03.2006.

# Chapter 1

## MISSION LiFE



## 1.1 Mission LiFE (Lifestyle for Environment)

### a. Introduction

LiFE (Lifestyle for Environment), introduced by the Honourable Prime Minister Shri Narendra Modi at COP26 in Glasgow in 2021 is India's landmark initiative to redefine individuals as the driving force behind the global response to climate change. Instead of solely relying on policy or technological transformations, Mission LiFE advocates for lifestyle transformation rooted in sustainable behaviour.

Formally launched by the Hon'ble Prime Minister in the presence of United Nations Secretary-General Mr. António Guterres on 20 October 2022 at Kevadia, Gujarat, Mission LiFE underscores the power of everyday choices in shaping the planet's future. Mission LiFE will contribute towards the vision of Viksit Bharat@2047 by promoting a development pathway that is sustainable, inclusive, and climate-resilient. The initiative advocates a shift from "mindless and destructive consumption" to "mindful and deliberate utilization" of resources to protect and preserve the environment.

Aligned with India's Nationally Determined Contributions (NDCs), Panchamrit commitments and Sustainable Development Goals (SDGs), Mission LiFE reinforces the idea that grassroots behavioral changes, when scaled nationally and globally, can significantly strengthen environmental resilience.

India has played a pivotal role in advancing the global discourse on sustainable lifestyles through key international milestones. At the Sixth Session of the United Nations Environment Assembly (UNEA) held in Nairobi, Kenya on March 1, 2024, India's resolution on 'Promoting Sustainable Lifestyles', co-sponsored by Sri Lanka and Bolivia, was unanimously adopted.

Mission LiFE is structured around seven key thematic areas that reflect the key areas of our daily lives where sustainable practices can have the most significant impact namely Save Energy, Save Water, Say No to Single Use Plastic, Reduce Waste, Reduce e-waste, Adopt Healthy lifestyles and Adopt Sustainable Food Systems.



### b. Important Activities Undertaken

#### 1. National Outreach:

Strengthened nationwide outreach on the seven LiFE themes through mass mobilisation campaigns, social media outreach and citizen mobilisation following whole of society and whole of Government approach, creating strong momentum for climate-conscious lifestyles. Since the launch of Meri LiFE, more than 6 crore people have reported participation in nearly 34 lakh LiFE events.

#### Key major thematic campaigns include

##### a. One Nation, One Mission - End Plastic Pollution:

Launched on May 22, 2025, in the run-up to World Environment Day 2025, this flagship campaign reinforced India's commitment to environmental protection and sustainability, aligned with the 'Say No Single Use Plastic' theme of Mission LiFE. Subsequently, National

Plastic Pollution Reduction Campaign was launched on WED 2025 till October 31, 2025. Cumulatively witnessed participation of over 39 lakh citizens in over 5 lakh activities nationwide as reported on Meri LiFE portal.

**b. E-Waste Awareness and Reduction Campaign:**

In partnership with Department of School Education & Literacy and UNICEF YuWaah, campaign was organized in two phases (Feb-May 2025 & Oct-Nov 2025) covering 23 cities across Tamil Nadu, Rajasthan, Madhya Pradesh, Punjab, Haryana, Assam & Chandigarh engaging nearly 1.76 lakh students in over 1600 schools through virtual workshops and school-based collection drives, resulting in the safe recycling of over 8950 kg of e-waste. Activities included expert talks, storytelling, and student-led projects, with e-waste collection points established in schools.

**c. Harit Yoga:**

Mission LiFE advocates for everyday habits that contribute to larger efforts for sustainability. For the International Day of Yoga 2025, Harit Yoga launched on April 7, 2025 was one of the 10 signature events to mark the 11th edition of this global event. Aligning with Mission LiFE's theme on 'Adopt Healthy Lifestyles' and 'Ek Ped Maa Ke Naam' Initiative, a social media campaign was organized combining Yoga with tree planting and campaign against plastic pollution.

**d. Swachhta Hi Sewa 2025 campaign:**

MoEFCC and its subordinate offices played an active role in the Swachhata Hi Seva (SHS) 2025 campaign from 17 September to 02 October. National Plastic Pollution Reduction Campaign of the Ministry was integrated with SHS 2025 jointly coordinated by the MoHUA & M/o Jal Shakti. MoEFCC and its subordinate offices participated in a wide range of activities including transforming 147 Cleanliness Target Units and cleaning of 246 public spaces engaging over 48,592 participants. As part of advocacy, 222 events were conducted involving over 5 lakh participants. Further, 24 Say No to Plastic Use drives were organized with participation of 1658 participants. Besides, more than 1500 beneficiaries availed preventive health check-ups in more than 48 Safai Mitra Suraksha Shivirs held across various organizations under MoEF&CC.



e. **Special Campaign 5.0:**

The Special Campaign 5.0 of Swachhta Abhiyan commenced with the commitment to achieve the key objectives of institutionalizing Swachhata and minimizing pendency. Special emphasis was laid on e-waste and National Plastic Pollution Reduction Campaign (NPPRC).

The Preparatory Phase of the Campaign was held from 15th September to 30th September, 2025. The Implementation Phase was initiated from 2nd October, which ended on 31st October, 2025. The Special Campaign 5.0 was implemented in all the 132 identified sites of the Ministry including Subordinate Offices and Autonomous Bodies.

During the Preparatory Phase, information was collected in respect of 11 parameters of Special Campaign 5.0 prescribed by the Department of Administrative Reforms and Public Grievances (DARPG), viz. (i) references from MPs (ii) Parliamentary Assurances (iii) IMC References (iv) State Government references (v) Public Grievances (vi) PMO References (vii) Public Grievance Appeals (viii) Easing of Rule/ Processes (ix) Record Management (physical files as well as E-Files), (x) scrap and redundant items for disposal and (xi) Cleanliness Campaign(s). Consolidated data was uploaded on daily basis on the Special Campaign for Disposal of Pending Matters (SCDPM) portal.

100% achievements were accomplished under Cleanliness Campaign of 132 identified sites, State Government References, Public Grievances, Public Grievance Appeals, review of Physical Files and e-files. 9,996 physical files were weeded out and 4,897 e-files were closed. Disposal of scrap including e-waste resulted in revenue generation of Rs. 47,24,913/- and 29,560 square feet of space were freed up, as per final data uploaded on the SCDPM portal.



**ZSI Kolkata volunteers participating in a clean up drive in marketplace area, New Alipore. Collected and handed over 450 Kgs of plastic waste to Municipal Corporation**

## 2. **Advocacy through LiFE Pavilions:**

As part of advocacy and outreach, the Ministry has actively leveraged national events and collaborated with various central Ministries to amplify Mission LiFE through their platforms. Mission LiFE has been showcased at major national events including Bharat Parv, Maha Kumbh Mela, World Environment Day 2025, World Food India Expo 2025 and India International Trade Fair 2025 Expo. Dedicated LiFE Pavilions featured interactive digital displays, Virtual Reality experiences, and live demonstrations, enabling visitors to explore the seven LiFE themes, take pledges, and commit to sustainable lifestyles. Nukkad Natak on Mission LiFE and its themes was also organized at the pavilion during IITF 2025. LiFE Pavilion at IITF

2025 was awarded for Excellence in Display for Public Outreach & Communication.



LiFE Pavilion at World Environment Day 2025



LiFE Pavilion at India International Trade Fair 2025 Expo



LiFE Pavilion at World Food India 2025 Expo

### 3. Integrating Mission LiFE in Education:

- Union Minister for Environment, Forest and Climate Change and Union Minister for Education held a meeting with senior officials from MoEF&CC and the Ministry of Education to advance Hon'ble Prime Minister Shri Narendra Modi's call for a sustainable future by integrating Mission LiFE into school education as per the guidance received in 3rd PMCC meeting held on 25th April 2025.



- Similarly, a meeting at the level of Secretary, Department of Higher Education (DHE) and Secretary, MoEFCC was held to discuss the integration of Mission LiFE into curriculum and activities in domain of Higher Education through a mandatory credit-based course on Mission LiFE.
- Supported youth engagement through a 10-day Experiential Learning Programme (ELP) on MyBharat platform, offering hands-on learning and community engagement.



- Ideas4LiFE initiative: An 'Ideas4LiFE initiative' under the framework of Mission LiFE to seek innovative ideas from students, faculties, research scholars, etc. on seven themes of Mission LiFE was launched in 2024. A total of 1384 entries were received, out of which, 21 ideas with top 3 ideas in each of the seven themes were shortlisted and felicitated on the World Environment Day on June 5, 2025.



### 4. Digital Media & Social Media Outreach:

- A one-month campaign on Ending Plastic Pollution with My GOV was launched on June 3, 2025 which included a campaign page with four activities namely Enviro Quiz, Infographics challenge, e-Pledge and Discussion forum. Over 93,000 people participated in this campaign.



- Every month, the Ministry focuses on one of the seven themes of LiFE and creatives are shared on the Social Media Platforms. Advocacy campaign was also organized integrating Mission LiFE with campaigns on Wild Life Week, Harit Yoga, etc.

## 5. International Collaboration and Outreach

- India’s resolution on ‘Promoting Sustainable Lifestyles for the Wise Use of Wetlands’, adopted at Ramsar COP15 in Zimbabwe, builds upon Resolution on ‘Promoting Sustainable Lifestyles’ adopted at UNEA 6.



Additional Secretary Dr. Amandeep Garg at the ACE Poster Pavilion during SB62 in Bonn

- The 10-Year Framework of Programmes

(10YFP) is a global platform that supports countries in shifting towards sustainable consumption and production. India is a Board Member of the 10YFP for a 2-year period till 2026. In this role, Ministry has consistently participated in virtual discussions, providing national perspectives on issues like sustainable public procurement, circular economy and sustainable lifestyles.

- India and Japan adopted a Joint Vision for the next decade during the Annual Summit 2025 held in Tokyo on 29-30 August 2025. The vision outlines eight pillars to strengthen their Special Strategic and Global Partnership. Under the “Next Generation Ecological Legacies” pillar, both countries committed to promote sustainable communities and lifestyles through Mission LiFE.

## 1.2 Ek Ped Maa ke Naam

- The "Ek Ped Maa Ke Naam" (EPMKN) campaign was launched by the Hon’ble Prime Minister on World Environment Day 2024, with a goal of planting 140 crore saplings by March 2025, on a voluntary basis and adopting a "Whole of Government" and "Whole of Society" approach, while utilizing the MeriLiFE portal for data crowd sourcing and plantation tracking.. Tree Plantation was done on the occasion of World Environment Day 2025 also by the Hon’ble Prime Minister, highlighting the continuity of the successful campaign.
- The campaign achieved its sapling plantation target, recording efforts from every district across the country. Core elements include restoring degraded lands, emphasizing indigenous species, and a strong societal approach encouraging public participation through social media hashtags. The MeriLiFE portal is facilitating the recording and monitoring of plantation activities.
- The EPMKN campaign 2025 aims to highlight the achievements of last year's tree plantation

initiatives, partner with various ministries, and make concerted efforts in the current year to enhance environmental sustainability. Implementation has begun from June, 2025, aligning with the monsoon season, and will involve extensive media coverage and public participation. The campaign emphasizes continuous engagement through the MeriLiFE portal and My Bharat Portal ensuring community involvement and capturing the progress of plantation activities. Module for reporting and collection of plantation data on MeriLiFE portal is active. The focus will be on maintaining saplings planted in the previous year, with awareness drives and technical support from State Forest Departments. Monitoring is being done at various levels including through District Plantation Committees, ensuring the health and survival of trees through regular assessments. The campaign encourages local communities to protect and nurture saplings through a structured maintenance framework.

- In the current year, it is aimed to plant 100 crore saplings, through participating ministries and State Forest departments, other Departments, public and all stakeholders.
- The plantation of more than 260 crore saplings since its inception has been reported on MeriLiFE portal of the Ministry.

The campaign also plans to establish 1000 micro-forests by March 2026, enhancing urban ecology and biodiversity. Participation from over 8,00,000 eco-clubs in schools is expected, fostering environmental consciousness among youth. On Independence Day, 2025 four (04) Best Volunteers/Workers who had participated in a big way under 'Ek Ped Maa Ke Naam' campaign were invited by President House as Special Invitees for "At Home Reception" at Rashtrapati Bhawan Cultural Centre. These Special Invitees were from Bihar, Jammu & Kashmir, Uttarakhand and Rajasthan and they have contributed towards 'Ek Ped Maa Ke Naam' and

are involved in creation of green spaces and micro-forests. While making this campaign a mass initiative, and in coordination with other stakeholders and public in the States/UTs, it is expected to achieve the declared objectives not only in letter but also in spirit i.e. honouring our mothers and ensuring a healthier planet for our future generations.

### 1.3 Meri LiFE portal

Two dedicated portals have been developed for structured monitoring and engagement of LiFE activities:

- Mission LiFE Portal: Repository of creatives and videos related to LiFE events
- Meri LiFE Portal: Platform for individuals, ministries, departments, and institutions to upload action reports, monitor progress, and showcase collaborative efforts across 106+ ministries and departments.

To enable convergence and enhance citizen engagement the following platforms have been integrated with Meri LiFE portal via API-based services for seamless data sharing:

- My Bharat Portal (Ministry of Youth Affairs & Sports)
- Environment Education Programme Portal of the Ministry
- Environmental Information, Awareness, Capacity Building and Livelihood Programme (EIACP)
- SBM(G) MIS Portal (Department of Drinking Water & Sanitation)
- Eco-Clubs on Mission LiFE Portal and Eco-Clubs participation under Ek Ped Maa Ke Naam – Department of School Education & Literacy

# Chapter 2

## ENVIRONMENT – ABATEMENT OF POLLUTION, POLICY AND LAW



## 2.1. Control of Pollution

The ‘Control of Pollution’ Division administers a Central Sector Scheme – ‘Control of Pollution’ which started from the year 2018-19 and it is continued in the FY 2025-26. The outlay of the scheme for the year 2021-22 to 2025-26 is Rs.3,802.5 crore. The CoP scheme comprises of the following components:

### (1) National Clean Air Programme (NCAP)

- The National Clean Air Programme (NCAP) is a flagship initiative launched to improve air quality across 130 cities (82 non-attainment cities + 40 non-attainment cities and Million-plus population cities +8 Million-plus population cities) in 24 States / UTs through a comprehensive, integrated and collaborative approach.
- The programme focuses on reducing concentrations of Particulate Matter (PM10)—fine airborne particles primarily generated from sources such as road dust, vehicular emissions, construction activities, open waste burning, and industrial operations.
- NCAP aims to achieve a reduction of up to 40% in PM10 levels compared to the 2019–20 baseline, or alternatively, ensure cities meet the National Ambient Air Quality Standard (NAAQS) of 60 µg/m<sup>3</sup> for PM10 by the year 2025–26.
- Each city under the NCAP has developed a Clean Air Action Plan (CAP) with defined annual targets to reduce PM10 concentrations. These plans focus on sectoral interventions across road dust, solid waste management, vehicular emissions, construction activities, and industrial pollution. Under Clean Air Action Plan (CAP) cities are mandated to identify key pollution sources, prioritize them based on impact, and deploy targeted mitigation measures to achieve quantifiable improvements in ambient air quality.
- These city-level Clean Air Action Plans are aligned with broader State-level and National-level frameworks to ensure consistency in approach, avoid duplication of efforts, and enable resource pooling
- Funding for the implementation of City Action Plans (CAPs) is leveraged through convergence with various Central Government schemes, including:
  - Ministry of Housing and Urban Affairs (MoHUA):
  - Swachh Bharat Mission – Urban (SBM-U)
  - Atal Mission for Rejuvenation and Urban Transformation (AMRUT)
  - Smart Cities Mission
  - PM E-Bus Sewa Scheme
  - Urban Transport
  - Ministry of Petroleum and Natural Gas (MoPNG):
  - Sustainable Alternative Towards Affordable Transportation (SATAT)
  - Ministry of Road Transport and Highways (MoRTH):
  - Vehicle Scrapping Policy
  - Ministry of Heavy Industries (MHI):
  - PM E-DRIVE Scheme
  - Ministry of Power (MoP):
  - SAMARTH – National Biomass Mission (Sustainable Agrarian Mission on Use of Agri-Residue in Thermal Power Plants)
  - Ministry of New and Renewable Energy (MNRE):
  - National Bioenergy Programme
- To address critical funding gaps, performance-based incentive grant is provided under NCAP.
- The XV Finance Commission through its Million-Plus Cities Challenge Fund (MPCCF) made provision of Rs. 16,539 crores for targeted actions in 48 Million-Plus Cities / Urban Agglomeration (42 MPCs + 6 UAs). Besides, critical gap funding of Rs. 3591 crores was provided in 82 cities under Central sectoral Scheme (CSS) ‘Control of Pollution(CP)’ of MoEF&CC. Overall, Rs. 13,852.22 crore (Rs. 11,457.34 crores for targeted actions in 48 Mil-

lion-Plus Cities / Urban Agglomeration and Rs. 2,394.88 crore to the 82 cities through Control of Pollution, Central Sector Scheme) have been distributed to these cities so far.

- As of date, a cumulative amount of ₹13,852.22 crore has been released to 130 cities under NCAP, including:
  - ₹2,394.88 crore to 82 non-attainment cities under the CP scheme of MoEF&CC
  - ₹11,457.34 crore to 48 Million Plus Cities/ Urban Agglomerations under the MPCCF of the XV Finance Commission
- Cities receive performance-linked grants to implement their action plans. Better-performing cities are incentivized through additional funding and recognition.
- The programme is anchored with multi-sectoral initiative involving the coordinated efforts of the Central and State Governments, Urban Local Bodies (ULBs), and other stakeholders.
- The National Level Apex Committee, headed by the Hon'ble Minister MoEF&CC, provides overall guidance to the program. Till date 43 meetings (04 Apex Committee, 08 Steering Committee, 14 Monitoring Committee and 17 Implementation Committee meetings) were held at National level.
- During FY 2024–25, a total of 534 meetings were conducted at the state and city levels, comprising 27 State Steering Committee meetings, 48 Air Quality Monitoring Committee (AQMC) or State-Level Monitoring and Implementation Committee (SLMIC) meetings, and 459 District-Level Monitoring and Implementation Committee (DLMIC) meetings.
- In addition, CPCB officers undertook field visits in all 130 NCAP cities to provide ground-level feedback and technical support.
- NCAP has also been brought under the purview of State and District-level DISHA Committees, enhancing accountability and convergence. These committees are chaired by the Chief Minister or Lieutenant Governor in the case of Union Territories at the state level, and by the elected Member of Parliament (Lok Sabha) from the respective district at the district level.
- To strengthen implementation, the Ministry has established Project Management Units (PMUs) at SPCBs / PCCs and in 130 cities, staffed with trained technical personnel. These units provide hands-on support to States and UTs. Additionally, more than 60 Institutes of Repute have been engaged to offer technical assistance, research support, and capacity augmentation.
- A structured Capacity Building Program has been designed to deliver periodic training to stakeholders across all levels, ensuring institutional readiness and sustained programmatic effectiveness.
- The programme implementation is tracked through the PRANA portal—through the PRANA portal—a centralized, web-based dashboard developed by MoEF&CC. It captures both physical progress (such as clean air action plan proposed, number of activities completed, meetings held) and financial progress (funds allocation, released and utilized) across all 130 cities.
- Air quality monitoring is conducted at 855 stations (500 manual stations and 355 CAAQMS stations) in 130 NCAP cities and the data is transmitted to CPCB through concerned SPCB / PCCs throughout the year. Performance of cities is assessed based on annual average of PM10 concentrations and Air Quality Index (AQI) computed from the air quality data collected annually through these stations.
- The Swachh Vayu Survekshan initiative ranks cities based on CAP implementation and air pollution mitigation efforts. Top-performing cities are felicitated annually on National Swachh Vayu Diwas (7th September).
- Swachh Vayu Survekshan Framework released in 2022-23 on measures taken by cities on road dust, SWM, vehicular emissions, industrial pollution, C&D waste management, other

emissions (DG sets and commercial establishments), IEC activities

- Participation and ranking of all 130 cities in 3 groups (Population below 3 Lakh; 3-10 Lakh; & above 10 Lakh)
- Self-assessment by cities; Approval by State-level Monitoring Committee; Evaluation by CPCB; Field verification by Independent Committees
- 4 Survekshans carried out (2021-22, 2022-23, 2023-24, 2025-26)
- Cash award conferred on Swachh Vayu Diwas (7th September) to top 3 performing cities in each group
- Mission LiFE has been integrated into State and City Action Plans to promote environmentally responsible citizen behaviour.
- Implementation of Key Air Quality Improvement Activities under NCAP as on date is as below:
  - A total of 16,424.14 km of roads have been paved end-to-end to reduce dust emissions from open surfaces.
  - 802 Mechanical Road Sweepers (MRS) have been procured to support routine dust removal operations.
  - 9,367.31 acres of green areas have been developed to enhance urban vegetation and improve ambient air quality.
  - 8,232 tonnes per day (TPD) of capacity has been created through the establishment of Construction and Demolition (C&D) waste processing sites.
  - 3,234 electric buses have been purchased and deployed to reduce vehicular emissions in urban transport systems.
  - 689 EV charging stations have been installed to support the transition to cleaner mobility.
  - 111 PNG / electric crematoria have been established to replace traditional biomass-based cremation practices.
  - 1,125.21 lakh metric tonnes of legacy waste have been remediated, contributing to improved waste management and reduced open burning.
- The focused actions by 130 cities under NCAP have shown positive results with 103 cities showing reduction in PM10 concentration in 2024-25 with respect to 2017-18, 64 cities have shown reduction in PM10 levels by more than 20% with respect to base year 2017-18 and 25 of these cities have achieved a reduction of more than 40%. A total of 22 Cities have met NAAQS and have PM10 Concentrations less than 60 µg/m<sup>3</sup>.
- The key initiatives taken under NCAP in FY 2025-26 are as follows:
  - Introduction of new Air Quality Challenge Method to access funds for FY 2025-26 for 82 cities funded under CP Scheme of MoEF&CC.
  - Cities mandated to prepare saturation-based plans (85 cities prepared)
  - Cities to achieve saturation in following 5 key activities by 2025-26
    - (i) Road improvement works for dust control including end to end paving, greenery development and mechanical road sweeping etc.
    - (ii) Greening of open areas, traffic corridors and mini forest including Miyawaki plantation
    - (iii) Improvement of traffic junctions for decongestion
    - (iv) Air pollution control measures in crematoriums:
      - Road improvement works for dust control including end to end paving, greenery development and mechanical road sweeping etc.
      - Greening of open areas, traffic corridors and mini forest including Miyawaki plantation
      - Improvement of traffic junctions for decongestion
      - Air pollution control measures in crematoriums:
        - Conversion to cleaner fuels, or

- Installation of air pollution control devices
- v. Involvement of schools and colleges for mass awareness and public outreach and also through ‘MY Bharat’
- Engaging Youth for Awareness Generation through ‘MY Bharat’ platform
- Action plans for plantation activities and Mini forests/Miyawaki plantation
- Guidance document on ‘design and construction of dust free roads’
- Guidance document on Development of Mini forests (Miyawaki plantation)
- To build on the progress made under NCAP and advance toward sustained air quality improvement, the following strategic actions are proposed:
  - Implementation of saturation-based city action plans by all 130 NCAP cities
  - Development and operationalization of a Regional Airshed Plan for the Indo-Gangetic Plain (IGP), covering 8 states, to address transboundary pollution and enable coordinated regional strategies.
  - Continuation of NCAP Scheme for an extended period of five years, from FY 2026–27 to FY 2030–31, to sustain momentum and deepen impact.
  - Inclusion of additional non-attainment cities under NCAP, expanding the program’s reach and ensuring that emerging urban centers receive necessary support.
  - Launch of Ward-level Swachh Vayu Survekshan, promoting citizen engagement in air quality improvement efforts.

### **National Coordination Committee:**

- In addition to existing monitoring committees, a National Coordination Committee (NCC) under the chairmanship of Hon’ble Home Minister with Hon’ble Minister for Environment Forest and Climate Change as Co-Chairman is constituted under NCAP for convergence of actions under Central and State schemes.
- The NCC has been constituted to provide strategic guidance and coordination for NCAP implementation through convergence of schemes and programmes of Central Ministries, State Governments, Urban Local Bodies, and other developmental agencies.
- NCAP emphasizes 100% saturation of city action plans in mission mode, leveraging funds from SBM-U, AMRUT, Smart Cities, SATAT, FAME-II, Nagar Van Yojana, and other schemes.
- All line Ministries are expected to present convergence strategies aligning their schemes and programmes with NCAP activities, particularly in the context of cities targeted under NCAP.

### **(2) Assistance for abatement of pollution to North Eastern states**

Under this component of the scheme, financial support to 8 North Eastern pollution Control Boards is being provided for carrying out laboratory Development, E-Governance and IT applications including online consent management, Online emission/effluent monitoring systems, development of IT infrastructure, Training and Mass Awareness, Pollution Assessment (Source monitoring, Monitoring of Ambient Air, water and Noise) and to meet establishment related expenditure (upto 50%)

### **(3) Research and Outreach Programmes**

Following activities are undertaken under this component:

- (i) Result oriented time bound R&D studies for control and abatement of pollution specifically air and water pollution through CPCB / SPCBs /PCCs. More than 50 projects are undertaken and they are in different phases of completion.
- (ii) Awareness and education, seminars /workshops / conferences, compliance assistance amongst

SMEs through CPCBs /SPCBs, semi-governmental organizations.

### **Amendment of the Air Act and the Water Act:**

- The Government of India is committed towards reshaping and redefining of India's business landscape by facilitating entrepreneurs and corporations by providing an environment of 'Ease of Doing Business'.
- A multitude of reforms were undertaken in the exercise of Reducing Compliance Burden. This aimed at improving not only the Ease of Doing Business but also the Ease of living by simplifying, rationalizing, digitizing and decriminalizing compliances for citizens.
- To give impetus to this, THE JAN VISHWAS (AMENDMENT OF PROVISIONS) ACT, 2023 (NO. 18 OF 2023) was enacted by the parliament on 11/08/2023 and under this Act, the Air (Prevention and Control of Pollution) Act, 1981 has been amended. The Adjudicating officers have been appointed in the Centre and in States / UTs for determining the penalties for contravention of Section 37, 38, 38A and 39 of the Air (Prevention and Control of Pollution) Act, 1981. The Offences for failure to comply with provisions of section 21 and for failure to pay penalty and additional penalty have not been decriminalised.
- Since water is a state subject provided in List-II of the Seventh Schedule of the Constitution, the amendments in the Water Act initiated after Resolution passed by the State of Himachal Pradesh and Rajasthan. The Resolution empowered the Parliament to amend the "Water (Prevention and Control of Pollution) Act, 1974" under Article 252(1) of the Constitution and accordingly, "the Water (Prevention and Control of Pollution) Amendment Act, 2024 notified on 15-02-2024. As of now 17 States and UTs have adopted the amendment Act. These are Rajasthan, Himachal Pradesh, Assam

, Chhattisgarh, Gujarat , Goa, Tripura, Meghalaya, Punjab, Uttarakhand , Mizoram, Maharashtra, Bihar, Arunachal Pradesh, West Bengal, Uttar Pradesh and Odisha.

- The salient features of the amendments in the Water (Prevention and Control of Pollution) Act, 1974 are as follows:
  - i. The Adjudicating officers have been appointed in the Centre and in States / UTs for determining the penalties for contravention of Sections 41, 41A, 42, 43, 44, 45A and 48 of the Water Act.
  - ii. The Offences for failure to comply with provisions of section 25 and 26 and for failure to pay penalty and additional penalty have not been decriminalised.
  - iii. The penalty amount will act as deterrent for law-abiding entrepreneurs which would ensure better compliance with laws while also promoting better corporate management practices in their operations.
  - iv. Penalty amount to be remitted to the Environmental Protection Fund created under the Environment (Protection) Act, 1986.
  - v. Opportunity to prefer an Appeal before the Hon'ble National Green Tribunal against an Order of the Adjudicating Officer.
  - vi. The amendment will encourage self-regulation and create an atmosphere of trust based governance.

### **Other important amendment and its effect:-**

1. Vide Gazette notifications G.S.R. 702 (E) and 703 (E) dated 12th November 2024 by MoEF&CC, industries that have already obtained Environmental Clearance (EC) under the Environment (Protection) Act, 1986 are exempted from the requirement of Consent to Establish (CTE) under the Water Act, 1974 and Air Act, 1981. In addition, "White category" industries (non-polluting) are completely exempted from both CTE and CTO requirements.

2. MoEF&CC, in consultation with CPCB, has notified Guidelines for the Grant, Refusal or Cancellation of Consent under the Water (Prevention and Control of Pollution) Act, 1974, and Air (Prevention and Control of Pollution) Act, 1981, on January 30 and 29, 2025, respectively.

The salient features of these guidelines are as follows:

- Single step procedure for granting consent along with authorization to the occupier.
- Uniform application forms (CTE/CTO) with limited mandatory documentation for consolidated consent and authorization.
- Standardized methodology for consent fee estimation, prescribed timelines for disposal of applications and uniform procedures for enquiry and verification of applications.
- In case the application is not decided by the SPCB / PCC within the period specified, the case shall be referred to State Level Monitoring Committee for disposal of the application.
- Development of Centralized Portal for implementation of these guidelines, serving as a single point data repository for management, monitoring and reporting. CPCB is developing a centralized portal, the Unified Consent & Authorization Management System (UCAMS), which will function as a single-point data repository for streamlined management and implementation of the prescribed guidelines. The Portal is scheduled to be completed by March, 2026. Once operational, all applications for grant of consent shall be processed and disposed of exclusively through UCAMS across all States and Union Territories. Until the portal becomes operational, the grant of CTE / CTO shall continue to be processed through the existing systems adopted by each SPCB / PCC.
- Central Government has issued Control of Air Pollution (Grant, Refusal or Cancellation of

Consent) Amendment Guidelines, 2026 vide G.S.R. 62 (E) dt.27-1-2026 and Control of Water Pollution (Grant, Refusal or Cancellation of Consent) Amendment Guidelines, 2026 vide G. S. R. 63 (E) dt.27-1-2026. The salient features of the amended guidelines are as below:-

- Introduction of Registered Environmental Auditor
- Reduction in processing period of Consent to Red Category Units
- Consent to Operate has been made perpetual
- Consolidated single Consent for handling of all Hazardous and Other Wastes
- Special provisions for Micro and Small units located in notified Industrial Estates or Industrial area for getting consent to establish.
- Repealing of Minimum Distance criteria for establishment of Industrial Unit.

### **Development of Environmental Standards:**

The Ministry of Environment, Forest and Climate Change (MoEFCC) formulates and notifies standards for emissions or discharge of environmental pollutants viz. air pollutants, water pollutants and noise limits, from industries, operations or processes with an aim to protect and improve the quality of the environment and abate environmental pollution. The standards are framed in consultation with the concerned stakeholders. The process is based on the best practices and techno-economic viability. The notification of standards also involves formulation of load based standards i.e. emissions / discharge limits of pollutants per unit of product obtained/ processes performed to encourage resource utilization efficiency and conservation aspects. The standards for any industrial process / operation recommended by Central Pollution Control Board (CPCB) are subjected to stakeholder consultation including general public. In sustained efforts towards control of air/ water pollution caused by various sectors of industries,

the Ministry embarked upon developing new standards/revision of existing standards for various industrial categories.

#### **Achievements and Progress are as follows:**

Standards across various industrial sectors have been notified / revised so far. The major sectors include: Thermal Power Plants, Common Effluent Treatment Plants, Sugar Industry, Cement Plants, Textile Industry, Slaughter House, Sewage Treatment Plants, Fertilizer Industry, Airport Noise Standards, Diesel/Petrol / LPG / CNG Gensets, Boilers using industries, Man-made Fibre Industry, Paint Industry, Coffee Processing Industry, Tannery Industry, Kerosene, and Emissions Standards for SO<sub>2</sub> and NO<sub>x</sub> for five industrial sectors – Lime Kiln, Ceramic, Glass, Foundry and Reheating Furnaces, Pharmaceutical Industry, PVC Pipes and Fittings, and Membrane based water purification system etc. The final notifications published in year 2025 on Emission and Discharge Standards under Environment (Protection) Act 1986 are as follows:

1. Amendment on Environmental Standards for brick kilns vide Gazette Notification G.S.R. 70(E) dated 22.01.2025
2. Environmental Standards for Caustic Soda Manufacturing Industries vide Gazette Notification G.S.R.194(E) dated 26.03.2025
3. Notification for exemption of cooling towers from Thermal Power Plants vide Gazette Notification G.S.R.446(E) dated 03.07.2025
4. Amendment on Environmental Standards for Thermal Power Plants vide Gazette Notification G.S.R.465(E) dated 11.07.2025
5. Amendment on Environmental Standards for Aluminium industries vide Gazette Notification G.S.R.482(E) dated 21.07.2025
6. Amendment on Environmental Standards for Pesticide industries vide Gazette Notification G.S.R.487(E) dated 22.07.2025

#### **Commission for Air Quality Management in National Capital Region and Adjoining Areas (CAQM)**

- The Commission has been constituted under the Commission for Air Quality Management in NCR and Adjoining Areas Act, 2021 up in accordance with the notification dated 23rd April, 2021 towards better coordination, research, identification and resolution of problems surrounding the air quality index in NCR and adjoining areas and for matters connected therewith or incidental thereto.
- As per the Act, three statutory Sub-Committees (i) Monitoring and Identification, (ii) Safeguarding and Enforcement and (iii) Research and Development have been constituted towards prevention, control and mitigation of air pollution. The Commission has also constituted other Sub-Committees on Graded Response Action Plan (GRAP) for specific purposes besides constitution of Expert Groups for certain tasks towards abatement of air pollution in the region.
- Since its inception, the Commission has been rigorously taking up the issue of air pollution in NCR and adjoining areas and has identified various sectors contributing to air pollution with core focus Industrial Pollution, Pollution from Diesel Generator (DG) sets, Vehicles and Transport sector, Agricultural Stubble Burning, Municipal Solid Waste / Biomass Burning, Fires in Sanitary Landfills sites, Dust from Construction and Demolition Project activities, Road and Open Areas dust and pollution from dispersed sources etc.
- To guide and direct various actions towards abatement of air pollution in the region, the Commission in the year 2025 has issued 10 Statutory Directions, 01 Advisory and executive orders to Govt. of NCR States/GNCTD and various agencies concerned in the region for improving of air quality in the region.
- A brief of the measures initiated / progressed

towards abatement of air pollution in the region, across various contributory sectors, are as detailed under:

**1) Industrial Pollution**

Running of industrial operations on approved fuels has been an area of priority for the Commission since its inception. The Commission is working in close coordination with various stakeholders (NCR States, GNCT of Delhi, CPCB, SPCBs of NCR States and Delhi Pollution Control Committee etc.) to ensure compliance of emissions through regular audit and inspection of the industries operating in NCR districts. Out of 7983 fuel-based industries

identified in Delhi NCR, all industries of Delhi have already been shifted to approved/ cleaner fuel barring only 310 industries which either remain closed or have been closed through the directives of States. Subsequent to earlier directive, the Commission vide Direction No.-65 has mandated a list of approved fuel in Delhi NCR for all the sectors w.e.f. 01.01.2023.

PNG infrastructure and supply in 224 out of identified 240 industrial areas in the NCR are available. Out of remaining 16 areas, 5 areas are feasible with cascade service due to poor demand, work is in progress in 8 areas and 3 areas in Haryana are sub

NCR States	PUC Issued	No. of Challan issued	Overaged 10/15 years old petrol /diesel vehicle impounded
Delhi	32,68,933	5,92,889	35,558
Haryana	26,60,799	33,910	545
Rajasthan	14,58,70	19,756	7,18
Uttar Pradesh	14,58,708	86,371	1,231

judice.

**2) Abating Air Pollution Caused by Diesel Generator Sets**

For abatement of pollution from Diesel Generator (DG) sets the Commission issued direction No. 76 dated 29.09.2023 as amended for regulating use of DG Sets across all sectors viz. Industrial, Com-

mercial, Residential and Office establishments etc. in Delhi NCR and implementation of the direction is ensured through regular inspections of units / industries etc.

**3) Pollution Caused by Vehicular Sector**

Towards controlling vehicular pollution caused vehicles States have also been pursued to ensure

Delhi – 4,37,854	Haryana – 1,08,141
UP – 1,70,143	Rajasthan – 26,189

regular certification of vehicles and compliance of emission standards under new “Pollution under Control” (PUC) Certificate regime. The details of the vehicles challaned for PUC violations/ visibly polluting/ overloaded vehicles etc. and overaged vehicle impounded during 2025 in the NCR are as under:

Further as an effective long-term strategy of controlling vehicular emissions, transition to e-mobility has been identified as an important tool by the Commission. With all the NCR States and GNCTD coming up with their respective medium / long term targeted EV Policies, the Commission has also issued an advisory to Govt. procurements, e-commerce platforms etc. for “Mandating procurement of zero emission and e-vehicles”.

Nos. of electric vehicles currently registered in NCR

upto September 30, 2025, as reported by the State Govts. / GNCT of Delhi are as under:

As per the available data (up to September 30, 2025, total 3,100 battery charging stations and 4793 charging points are already in place in the territory of Delhi.

With a view to abate air pollution caused by high volume of commercial goods vehicles entering into Delhi, the Commission issued Statutory Direction No. 88 dated 23.04.2025 as amended dated 17.10.2025 in view of the direction of the Hon'ble Supreme Court vide Order dated 09.10.2015 lifting the exemption granted to commercial vehicles carrying essential commodities considering that physical verification at border check points leads to prolonged stoppages and congestion which aggra-

S. No.	Status of inspection	Delhi	Haryana	Uttar Pradesh	Rajasthan
<b>A. C&amp;D sites (plot area <math>\geq</math> 500 sq.m.)</b>					
1.	No. of C&D sites physically inspected	22,192	2,098	4,394	3,240
2.	Total no. of sites against which EC was levied for non-conformities.	150	99	23	13
3.	No. of sites ordered for closure / stoppage of work.	72	12	17	2
<b>B. C&amp;D sites (plot area &lt; 500 sq.m.)</b>					
4.	No. of C&D sites physically inspected	40,237	1,513	4,076	5,505
5.	Total no. of sites against which EC was levied for non-conformities.	1,030	69	94	0
6.	No. of sites ordered for closure / stoppage of work.	12	1,855	1	0

vates the problem of air pollution.

“Strict ban on entry of any commercial goods vehicle viz. LGV, MGV and HGV, other than BS-VI, CNG, LNG and EV, into Delhi w.e.f. 01.11.2025, except such vehicles that are registered in Delhi. Provided that all BS-IV commercial goods vehicles viz. LGVs, MGVs and HGVs are permitted to enter into Delhi for a limited period up to 31.10.2026.

In consonance with the Hon’ble NGT and the Hon’ble Supreme Court order, the Commission has issued Direction 89 on 23.04.2025, as amended on 08.07.2025 to the NCR State Government and NCT of Delhi for large fleet of End-of-Life vehicles (Petrol / Diesel vehicles more than 10/15 years) from Delhi-NCR. However, the said direction has been kept in abeyance in view of the Hon’ble Supreme Court direction vide order dated 12.08.2025.

In wake of the concerns of highly polluting inter-city/inter-state bus services to Delhi from across the States / regions in the country, Directions nos. 78 and 81 were issued for migration of all buses entering into Delhi to cleaner modes. Besides, the All India Tourist Permit (AITP), Contract Carriage Permit, Institution / School Bus Permit etc., also travel to Delhi and in the overall interest of abatement of vehicular air pollution from this sub-sector, even such buses need to be converted to clean fuel modes viz. CNG/ EV/ BS-VI Diesel. Accordingly, the commission mandated migration of all buses entering into Delhi including those operating under All India Tourist Permit and other service regimes to cleaner modes like CNG/EV/BS-VI Diesel buses, latest by 01.11.2026 vide Direction No.-93 dated 03.06.2025.

Towards abatement of vehicular pollution and for faster transition to cleaner mobility in Delhi – NCR particularly in the sectors of Motor Vehicle Aggre-

gators, Delivery Service Providers and E-Commerce Entities, the Commission has issued Direction No. 94 dated 03.06.2025 mandating:

- i. Only CNG / Electric 3-Wheeler Auto rickshaws shall be additionally inducted in the existing fleet of vehicles;
- ii. No conventional ICE vehicles running purely on diesel or petrol shall be further inducted in the existing fleet of 4-Wheeler LCVs, 4-Wheeler LGVs (N1 category -up to 3.5 Ton) and 2-Wheelers with effect from 01.01.2026.

#### 4) Dust from Construction and Demolition Project activities

Commission is ensuring compliances related to various rules and guidelines related to effective dust mitigation measures at C & D sites through inspections. Besides monitoring by the Commission, the State PCBs in NCR and DPCC have also been directed to conduct regular physical inspections of different construction and demolition projects (for plot area  $\geq 500$  sq.m. &  $< 500$  sq.m) in their respective jurisdiction. Details of the inspections conducted from 01.01.2025 to 30.09.2025 are as under:

Further, towards effective monitoring and exercising stricter control on air pollution caused by a large number of construction and demolition sites, the Commission vide **Direction No. 85 dated 02.12.2024** in exercise of the powers conferred upon it under Section 14 (2) of CAQM Act, 2021 authorised the Member Secretaries of the Pollution control Boards in the NCR states of Uttar Pradesh, Haryana, Rajasthan and Member Secretary, DPCC, in their specific role and capacity as the Members of the statutory Sub-Committee of the Commission for "Safeguarding and Enforcement" to file a complaint for prosecution of the project proponents / executing agencies before the the Jurisdictional Judicial Magistrate, in case of gross violations of directions / orders in respect of dust / air pollution control and mitigation measures at such sites, be-

sides ordering closure of such sites and imposition / realisation of environment compensation charges in such cases of gross violations on C&D sites with plot area more than 500 sqm.

Similarly **Direction No. 86 dated 02.01.2025** has been issued authorizing the Commissioner / Zonal Deputy Commissioners, Municipal Corporation of Delhi (MCD); Secretary, New Delhi Municipal Council; and Commissioners / Chief Executives / Deputy Commissioners of the various Urban Local Bodies in the major cities adjoining Delhi viz. Gurugram, Faridabad, NOIDA, Greater NOIDA, Ghaziabad and Sonapat in respect of C&D activities on sites equal to or less than 500 sqm plot area.

### 5) Dust from Roads and Open areas

High levels of air pollution in Delhi NCR remain a major environmental and public health concern, particularly during the post-monsoon and winter seasons when stagnant weather conditions trap pollutants. To address these concerns, the Commission has emphasized measures such as identification of dust hotspots, paving of roads and roadsides, greening of central verges and roadsides, mechanized sweeping, regular water sprinkling and use of anti-smog guns (ASGs) etc.

Dust Control and Management Cells (DCMCs) 68 in nos. have been constituted among different road-owning agencies in Delhi, Haryana, Uttar Pradesh, and Rajasthan NCR districts, which oversee the implementation and monitoring of dust-mitigation activities.

To develop a scientific understanding of dust re-suspension, a study was undertaken by CSIR-NEERI and CSIR-CRRI, New Delhi, covering areas along the Eastern and Western Peripheral Expressways. A detailed road condition survey covered over 2200 km of roads, revealing that 24% were in poor condition, 42% were moderate, and

34% were in good condition. Dust particle analysis showed that most particles ranged from 35 to 211 µm, with accumulation observed near road medians and edges, indicating the need for better MRSM design and increased road sweeping frequency. Traffic and dispersion modeling identified high emissions, particularly on poor road stretches with dense traffic. To manage dust, the study recommended efficient dust lifting systems, the use of suppressants in low-traffic areas, and the development of green barriers. For sustainability, the reuse of treated wastewater and the implementation of three-tier plantation systems were suggested to enhance roadside greening. Continuous monitoring through drones and mobile particulate matter (PM) sensors was also proposed to enable real-time assessment of road and air quality conditions. The study also recommended a unified framework for road paving, greening, and optimized deployment of MRSM.

A Committee under the chairmanship of Director, CSIR-CRRI, New Delhi, was constituted in the Commission. The Committee submitted report on “Standard Framework for Paving and Greening of Urban Roads”, recommending multiple actions for controlling the dust pollution from roads and open areas through paving and greening measures as well as use of Road Asset Management System (RAMS) and advanced technological interventions to control dust from roads and open areas in Delhi NCR.

### 6) Abatement of Air Pollution through Prevention of Municipal Solid Waste Burning and Management of Municipal Solid Waste

Municipal Solid Waste (MSW) poses a serious threat to human health and the environment due to rapid urbanization, population growth, and inadequate waste management. Improper disposal in landfills and frequent open burning of unsegregated waste releases harmful pollutants such as

particulate matter (PM10 and PM2.5), NO<sub>2</sub>, SO<sub>2</sub>, CO, ammonia, and volatile organic compounds. Burning of mixed waste containing plastics generates toxic dioxins and furans, while landfill emissions from anaerobic decomposition and machinery movement further contribute to air pollution and greenhouse gas emissions, making MSW mismanagement a critical environmental and public health concern.

In the matter of MSW burning and management of MSW for prevention of open burning, CAQM coordinates with various agencies such as Municipal corporations, ULBs, SPCBs, and MoHUA to monitor the solid waste management in Delhi and NCR with a view to reducing the solid waste burning activities and landfill/dumpsite fires, thereby reducing the air pollution.

The Commission in compliance with the Supreme Court's order dated 02.05.2025, issued Direction No. 91 dated 03.06.2025 under Section 12 of the CAQM Act, for prevention of fires at sanitary landfill sites, dumpsites, open waste areas and management of both legacy and newly generated MSW.

## 7) Agricultural Stubble Burning

The Commission has identified Paddy Stubble Management as one of the priority areas. Based on the framework issued by the Commission, through direction dated 10.06.2021 and also based on learnings from the years 2021, 2022, 2023 and 2024, State Governments of Punjab, Haryana and UP prepared State Specific Action plans for 2025. Accordingly, a statutory Direction No. 90 dated 09.05.2025 was issued to the respective States for strict implementation of the framework and Action Plan for prevention and control of paddy stubble burning during the year 2025, targeting to eliminate the practice through strict enforcement. The Action Plan includes measures like in-situ crop residue management, ex-situ utilization of paddy straw, strict monitoring and enforcement, and ex-

tensive awareness campaigns, all aimed at reducing the practice of burning agricultural residue after harvest. The highlights of the Direction are as under:

- Tagging of specific nodal officers in the State (max 50 farmers for each nodal),
- Gap analysis and status for procurement of different types and nos. of machinery in 2025,
- Plans for rent-free availability of CRM machines for small / marginal farmers through the CHCs in the state,
- Utilization status of balers, rakers and other machines for ex-situ management,
- Planning for adequate and appropriate storage facility for paddy straw bales,
- Planning for district Level Supply Chain Management and ex-situ utilization.
- Mandating a common determined rate for procurement of paddy,
- Mandating use of paddy straw pellets / briquettes for co-firing in brick kilns on the lines of thermal power plants (Direction 92, dated 03.06.2025),
- Constitution of a dedicated "Parali Protection Force" at the district / block level comprising to closely monitor, oversee and guard against any incident of open paddy stubble burning,
- Intensified patrolling by enforcement agencies during late evening hours considering the tendency of some farmers to resort to burning during late evening hours to evade the satellite recording of the farm fires.

The Commission from time to time has appropriately communicated and issued directives & advisories to various stakeholders including the Thermal Power Plants located in NCR and Adjoining Areas within 300 Km of Delhi, State Governments of Punjab, Haryana and Uttar Pradesh for "Ex-Situ Stubble Management" and to establish an ecosystem and robust supply chain mechanism to boost ex-situ utilisation of straw for tackling the problem of stubble burning. The exercise involves

at least 5-10% co-firing of crop-residue based pellets (with focus on paddy straw) in coal based TPPs. During 2025-26 till September 11 TPPs of the region altogether has co-fired 8.59 Lakh MT crop-residue based pellets against a given target of 33.31 Lakh MT.

In 2025, the Commission through Direction No. 92, dated 03.06.2025, directed the State Governments of Punjab and Haryana to mandate use of paddy straw-based bio-mass pellets / briquettes in

all brick kilns located in the districts beyond NCR, as one of the means towards elimination of the practice of open paddy stubble burning, aiming for 50% co-firing of paddy straw based pellets / briquettes with a target of at least 20% w.e.f. 01.11.2025, 30% w.e.f. 01.11.2026, 40% w.e.f. 01.11.2027 and 50% w.e.f. 01.11.2028;

With persistent efforts made continually from year to year, a significant reduction (78.1% in Punjab and 61.6% in Haryana in 2024 w.r.t. 2022) in

**Paddy Residue Burning events**  
(Period: 15th September- 30th November)

Punjab			Haryana			Uttar Pradesh (NCR)			Total (including Delhi and NCR Districts of Rajasthan)		
2022	2023	2024	2022	2023	2024	2022	2023	2024	2022	2023	2024
49922	36663	10909	3661	2303	1406	198	212	414	53792	39186	12750

paddy residue burning incidences has been recorded. The number of paddy residue burning in-

cidents during paddy harvesting season as per IARI Bulletins of 2022 to 2024 are as under:

**Paddy Residue Burning events**  
(Period: 15th September- 09th November)

Punjab			Haryana			Uttar Pradesh (NCR)			Total (including Delhi and NCR Districts of Rajasthan)		
2023	2024	2025	2023	2024	2025	2023	2024	2025	2023	2024	2025
23,620	6,266	4,062	1,676	959	333	58	147	44	25,361	7,392	4,456

The Status of the cumulative Paddy Residue Burning events for the Period: 15th September – 09th November, during the year of 2023 to 2025 are as under:

### 8) Graded Response Action Plan

The Commission has comprehensively revisited the contours of the GRAP in vogue, towards an effective implementation mechanism and control on the adverse air quality scenario that generally persists in the entire NCR during the peak winter months. The schedule for GRAP was reviewed by the Commission in 2024 and Direction No. 83 was issued on 17.09.2024 which on the directives of Hon’ble Supreme Court was further amended and issued on 13.12.2024.

The Sub-Committee for Operationalization of

GRAP has been reconstituted and regular review meetings are being conducted by the Sub-Committee for taking decisions regarding invocation/ revocation and to monitor the implementation of GRAP.

### 9) Greening & Plantation

Commission for Air Quality Management in NCR and Adjoining Areas (CAQM) has been interacting on regular basis with the State Governments of Haryana, Rajasthan and Uttar Pradesh, Government of N.C.T of Delhi as well as Central Government agencies and higher education institutions, for increasing green cover in the Delhi NCR region. The Commission sought comprehensive action plans from them for greening/plantation to abate air pollution. Major components of the action plans are greening of central verges, greening of

#### Targets and achievement for Greening/ Plantation (No. of saplings) (including trees, shrubs, bamboo, etc.)

State	Target for 2025-26	Achievement for 2025-26 (Till 30.09.2025)
Delhi	61,38,058	20,73,524
Uttar Pradesh (NCR Districts)	1,71,44,900	1,77,94,457
Rajasthan (NCR Districts)	74,22,375	1,14,17,577
Haryana (NCR Districts)	1,24,31,077	1,24,31,077
<b>Total</b>	<b>4,31,36,410</b>	<b>4,37,16,635</b>

open areas along the road side / right of ways, greening of hotspot areas and other high polluted areas. The plantation targets in the NCR States and

GNCTD and the achievement are given below:

To effectively use increased green cover as a dust mitigation and air pollution control measure the following has been envisaged:

- State Governments and other institutions have been advised to lay emphasis on creation of urban forest (dense plantation) using various techniques including Miyawaki technique, keeping in view small areas available in NCR Delhi.
- While interacting with the State Governments concerned and major institutions of higher education, academic and research institutions in the NCR Region, they have been advised to lay special emphasis on involving students, faculty members, staff and residents in the plantation drives.
- Monitoring, post plantation care, survival rate and plantation of native species are key elements of the plantation programme. Regular follow up and review with the State Governments are being conducted in order to effectively implement the greening and plantation programme in the NCR region.
- Involvement of NGOs and RWAs in plantation drive needs to be encouraged and in this regard various IEC activities may be taken up by State governments.
- Expanding the net of “Nagar Van” and “Nagar Vatika”, wherever feasible, in urban agglomerations and cities in NCR, including adoption of dense plantation in limited urban spaces (such as Miyawaki Technique or Technique adopted by Rajasthan/UP).
- The Commission circulated a list of air pollution tolerant species to all agencies of Govt. of N.C.T of Delhi, State Govts. of Haryana, Rajasthan and Uttar Pradesh, Central Govt. agencies and Higher Education & Research Institutes.
- The Commission has recommended that monitoring / audit of the plantations shall be undertaken by agencies as it is necessary for verification of the numbers and area covered under the plantation.

- The Commission has advised all the road owning agencies in GNCTD and NCR districts of U.P, Haryana and Rajasthan that they should separately account for greening / paving of non-paved roads, greening of all central verges and also identification of roads for executing dense plantation.

### **10) Abatement of Pollution from Non-point Dispersed Sources**

For the abatement of Air Pollution from “Non – Point” dispersed sources, public complaints, dispersed / local sources causing air pollution are flagged to the concerned agency electronically through a mobile application (311 App of MCD) as per the Standard Operating Procedure (SoP). Issues are categorized as short term / long term with focus on expeditious resolution of short-term issues and planning for the long-term issues. A total of 3,14,255 issues have been flagged so far, of which 2,73,906 issues (approximately 87.2%) have been fruitfully resolved as of 09.10.2025 in Delhi.

### **11) Intensified actions for deteriorated air quality during winter**

The “Enforcement Task Force” (ETF), constituted by the Commission meets frequently to review and take stock of the ground situation to closely monitor the field level implementation and compliances of the various directions and orders issued by the Commission. Non-conformities / non-compliance in respect of various directions and orders identified by the Flying Squads are presented before the Enforcement Task Force for detailed deliberations and deciding action against serious violations.

A total of 40 Inspection Teams / Flying Squads have been constituted for incognito inspections / surprise checks in various sites across different sectors viz. industry, construction & demolition sites, DG Set operations in commercial/ residential complexes, open waste burning and miscellaneous sources across all the NCR districts of Haryana, Uttar Pradesh, Rajasthan and the NCT of Delhi.

Total sites inspected	No. of closures directions issued				State-wise closure cases			
	Industry	C&D Sites	DG Sets	Total	Delhi	Har	UP	Raj
4220	111	312	0	423	102	165	137	19

The status of Closure Directions approved by the Commission across different sectors and geographical jurisdictions in the NCR, till 07.11.2025 since inception of the Commission (i.e. from 13/04/2021) is as under:

Sector-wise Resumption Cases			Total	State-wise Resumption Cases			
Industry	C&D Sites	D G Sets		Delhi	Har	UP	Raj
68	241	0	309	84	84	123	18

Such units / activities were later permitted to resume operations by the Commission following due corrective and preventive measures by such units and the details of resumptions as on 07.11.2025 are as under:

Further, compliance status of the 258 units are either under examination and / or will be examined as on when compliance/ response will be submitted by the entities for resumption.

### 12) IEC Activities

CAQM is actively driving IEC, public awareness and behavioural change campaigns towards environmental sustainability and air pollution mitigation. The Commission is also promoting the activities featuring cycling, walking, street plays, and IEC activities on clean air, along with capacity building workshops for Govt. Officials of concerned agencies of NCR working towards air pollution mitigation. CAQM is also conducting the “Building a Sustainable Future” program in NCR schools through the Vayu Mitra pledge, etc.

Under the “Breath of Change” campaign through EIACP Centres of MoEF&CC, over 1.3 lakh people were engaged through workshops, film screenings, podcasts, and youth-focused outreach.

Additionally, under the Shudh Vayu Sampark (Su-VaS) network, an IEC Knowledge Forum has been constituted to facilitate expert dialogue, knowledge exchange, and effective communication for air quality improvement in the region.

### 13) R&D Projects

The Commission had granted financial assistance for 07 projects under Research and Development scheme of the Commission during 2022-23. List of such projects is at Annexure. Among these, following 03 studies were completed during the year 2024-25:

- (i) The study under the project entitled “Addressing Vehicular Traffic Induced Road Dust re-suspension with S&T based Action Plans for Air Quality Improvement in Delhi NCR” was conducted jointly under the joint supervision of Principal

Investigators, Dr. S. K. Goyal, Chief Scientist & Head, CSIR-NEERI and Dr. Neeraj Sharma, Chief Scientist, TPE Division, CRRI, New Delhi.

- (ii) The study under the project entitled “Decision Support System for Air Quality Management in Delhi and its Bordering Districts in the NCR” was conducted under the supervision of Principal Investigator, Dr. Gaurav Govardhan, Scientist ‘D’ IITM, Pune.
- (iii) The study under the project entitled “Evaluation of Retro-fitting of 2 & 3 Wheeler Auto-

rickshaws with Electric Drive as an option for improvement in air quality in NCR” has been completed under the supervision of Principal Investigator, Dr. Ravindra Kumar, GM, ARAI, Kothrud, Pune.

#### 14) Grievance redressal and facilitation

The Commission has set up a grievance redressal mechanism for dealing with the complaints/ grievances received.

#### 15) Budget Allocation for the Financial Year 2025-26

	(Rs. In crore)
(a) Grant in Aid General	30.88
(b) Grant for Creation of Capital Assets	00.10
(c) Grant in Aid Salaries	08.00
Total	38.98

## 2.2. Central Pollution Control Board

### a. Introduction

Under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Central Government constituted the ‘Central Board for the Prevention and Control of Water Pollution’ on September 23, 1974. The name of the Board was amended to Central Pollution Control Board (CPCB) under the Water (Prevention & Control of Pollution) Amendment Act, 1988 (No. 53 of 1988). The CPCB has been entrusted with the added responsibilities of Air Pollution Control since May, 1981 under the provisions of the Air (Prevention and Control of Pollution) Act, 1981. The enactment of the Environment (Protection) Act, 1986, which is the umbrella legislation for enforcement of measures for protection of environment, and several notifications of Rules under the Act widened the scope of activities of the CPCB.

CPCB is a statutory body and receives 100 % Grant in Aid from the MoEF&CC for executing its functions and responsibilities, with a total budget allocation of Rs.116.20 Crores as Grant-in-Aid in the Budget Estimate for FY 2025-26 (Under BE).

The newly developed Regional Directorate Laboratories at Shillong and Pune were inaugurated and laid the foundation stone for a new building of the CPCB, Delhi on 50th CPCB Foundation Day, by the Hon’ble Minister, EF&CC.

### b. Important Activities

#### 1. Air Quality Monitoring Network

The following steps have been taken to monitor and improvement of air quality:

- Under Sub-section 2 (h) of Section 16 of the Air (Prevention and Control of Pollution)

Act, 1981 National Ambient Air Quality Standard (NAAQS) has been notified on November 18, 2009 as a policy guideline that regulates the effect of human activity on the environment.

- CPCB has started National Ambient Air Quality Monitoring Programme (NAMP) in 1984. At present, Ambient air quality monitoring network has 1601 stations, covering 583 cities in 28 States and 7 UTs. Out of these total 1601 stations, 1035 stations are manual monitoring stations and 566 stations Continuous Ambient Air Quality Monitoring Stations (CAAQMS).
- Continuous Ambient Air Quality Monitoring System is a specialized system that is housed in a temperature controlled container/room and is equipped for monitoring of ambient air pollutants using different analyzers. The real time data generated through this system is transferred to Central Server and also to digital display board for public viewing. The data of these CAAQMS are being used for generating the daily National Air Quality Index (NAQI) of the cities.
- Under CAAQMS the Particulate Matter (PM10 & PM2.5), Sulphur Dioxide (SO<sub>2</sub>), Nitrogen Dioxide (NO<sub>2</sub>), Ammonia (NH<sub>3</sub>), Carbon Monoxide (CO), Ozone (O<sub>3</sub>) and Benzene (C<sub>6</sub>H<sub>6</sub>) are being monitored at all locations. The CAAQM stations are also equipped with sensors to measure meteorological parameters such as Wind Speed, Wind Direction, Ambient Temperature, Relative Humidity, Solar Radiation and Rainfall.
- Air Quality Index (AQI) is being generated on hourly basis through continuous monitoring stations and displayed on CPCB website. Daily AQI bulletin is released where AQI of 292 cities is available as on date. Out of 130 Non-attainment Cities, AQI is generated for 101 cities with the data generated through

CAAQMS.

- National Clean Air Programme (NCAP) was launched in 2019 by the Ministry of Environment, Forest and Climate Change (MoEF&CC) to achieve 20 to 30% reduction in Particulate Matter concentrations by 2024 across the country. Target has been revised to achieve reduction in PM10 level up to 40% or achievement of national ambient air quality standards (60 µg/m<sup>3</sup>) by 2025-26.
- Non-attainment cities (NACs) are defined as those cities which exceed annual average concentrations of any of the notified parameters under NAAQS consecutively for five years. Based on air quality levels exceeding NAAQS and Urban Agglomerations with more than million plus population in States, 130 cities were identified for recommending air quality management grants. Clean Air City Action Plans have been prepared and are being implemented in 130 identified NACs and million plus cities.
- “PRANA” – Portal for Regulation of Air-pollution in non-attainment cities, has been developed for monitoring & implementation of NCAP, and is available on ‘www.prana.cpcb.gov.in’. PRANA endeavours to support tracking of physical as well as financial status of implementation of city air action plan and also, to disseminate information on air quality management efforts under NCAP to public.

## 2. Water Quality Monitoring Network

The following steps have been taken to monitor and improvement of water quality:

- CPCB in association with State Pollution Control Boards (SPCBs) and Pollution Control Committees (PCCs) has established water quality monitoring network under National Water Quality Monitoring Programme (NWMP). Network strength has been enhanced to 4922 locations Water qual-

ity monitoring at these locations is carried as per the Guidelines for Water Quality Monitoring, 2017 circulated by MoEF & CC.

- The network comprises of monitoring locations in 28 States and 6 Union Territories (UTs). Monitoring network covers 2260 locations on rivers, 587 on Lakes, 143 on Ponds, 102 on Tanks, 1271 Ground Water locations and 559 monitoring locations on other water bodies under National Water Quality Monitoring Programme (NWMP).
  - Real Time Water Quality Monitoring of River Ganga is carried out at 40 stations (Main stem -17; Tributaries-23) for 12 parameters including pH, BOD, DO, Temperature, EC, Chloride, COD, Turbidity, Nitrate, TOC, water level and water depth.
  - Manual water quality monitoring of river Ganga is being carried out by CPCB at 112 locations in 5 main stem States through the concerned SPCBs namely Uttarakhand (UK), Uttar Pradesh (UP), Bihar, Jharkhand and West Bengal (WB). River water quality is assessed for primary water quality criteria notified for outdoor bathing in terms of pH (6.5-8.5), Dissolved Oxygen (DO) ( $\geq 5$ mg/L), Bio-chemical Oxygen Demand (BOD) ( $\leq 3$ mg/L), Faecal Coliform (FC) ( $\leq 2500$  MPN/100ml) and Faecal Streptococci (FS) ( $\leq 500$  MPN/100ml). Sampling was carried out on fortnightly basis and the data of year 2024 (January to December) was analysed using statistical tool median which is simply a measure of central tendency and it is observed that:
    - pH & DO (median) are meeting the primary water quality criteria for bathing at all the monitoring locations along the entire stretch.
- 3. Polluted River Stretches**
- River Location not complying to BOD criteria ( $> 3$  mg/L) is identified as Polluted Location. Two or more polluted locations in a continuous sequence is called Polluted River Stretch (PRS). Accordingly, PRS are categorized under five Priority Classes based on maximum BOD level observed. Priority I: exceeding 30 mg/L; Priority II: between 20-30 mg/L; Priority III: between 10-20 mg/L; Priority IV: between 6-10 mg/L; and Priority V: between 3-6 mg/L
    - During 2018, 351 PRS on 323 Rivers were identified in 31 States/ UTs based on water quality data of 521 rivers (2016 & 2017). Comprehensive Action Plans were formulated by States/ UTs and Action plans are under implementation & are reviewed at State & Central Level. At State level, action plans are reviewed by four membered River Rejuvenation Committee (RRC) of concerned State/ UT comprising Director (Environment), Director (Urban Development), Director, (Industries) and Member Secretary, SPCB/PCC under supervision & coordination of Principal Secretary, (Environment). Overall responsibility lies with Chief Secretaries of the States/UTs.
    - During 2022, 311 PRS on 279 rivers in 30 States/UTs were identified, based on water quality data of 603 rivers in 2019 & 2021. They are categorized under five Priority Classes: I ( $> 30$  mg/L) – 46; II (20-30 mg/L) – 16, III (10-20 mg/L) – 39, IV (6-10 mg/L) – 65, V (3-6 mg/L) – 145.
    - Comparative assessment of PRS during 2018 vs 2022 revealed that total number of PRS have been reduced from 351 (year 2018) to 311 (year 2022) despite increase in number of river monitoring locations. The number of PRS has reduced in 13 States and number of PRS in 5 States/UTs has remained same.
    - Water quality of 180 PRS out of 351 identified in 2018 has improved. 106 river stretches have come out of the list (BOD  $< 3$ mg/L) and 74 have shifted to lower priority class. Priority class of 108 PRS has re-

mained same in both years 2018 and 2022, indicating that there was no further impact of pollution despite increased activities in the catchment area.

- Further, during 2025, based on water Quality of 2022 & 2023, 296 PRS were identified on 271 rivers in 32 States / UTs (out of 623 rivers). The number of PRS were reduced from 351 in year 2018 to 296 in year 2025. Total 149 no. of river stretches identified as polluted during 2018 are not identified as polluted based on assessment of water quality data for the years 2022 and 2023.

#### 4. National Mission for Clean Ganga (NMCG) – Namami Gange Programme

Three Projects were sanctioned to CPCB under Namami Gange Programme, with a primary emphasis on enhancing the water quality of the Ganga River and improving overall public health. The details are:

1. Pollution Inventorization, Assessment and Surveillance (PIAS) sanctioned in year 2011 and subsequently extended till 2023. The project re-sanctioned on 24.05.2023 with an amount of Rs 113.85 Crore for three years w.e.f. 01.04.2023.
  2. Water Quality Monitoring (WQM) Project for River Ganga was sanctioned in year 2013 and extended on 20.06.2020 for six years till 19.06.2026 with an amount of Rs 126.17 Crore.
  3. Strengthening of Environmental Regulators (SER) was first sanctioned on 19.06.2013 with an amount of Rs 69.26 Crore and next phase of SER project was sanctioned on 18.02.2022 for 3 years with an amount of Rs 66.21 Crore. The third phase of the project was sanctioned on 07.05.2025 with an amount of Rs. 56.54 Crore for three years w.e.f. 07.05.2025.
- CPCB has undertaken various sector specific initiatives to enhance compliance. This in-

cludes implementation of sector specific charters by involving State Govt. departments and expert institutes like CPPRI, VSI, NSI and Industry Association.

- Charters have been developed with the objective to facilitate industries to adopt cleaner technology waste minimization practices as well as upgradation of effluent treatment facility in the five major industrial sectors like Pulp & paper, Distillery, Sugar, Textile and Tannery which together contribute effluent discharge of about 70% and BOD load of 90% of total Industrial pollution discharge by GPIs in Ganga Basin.
  - The exercise of annual inspection of Grossly Polluted Industries (GPIs) and implementation of Charter in major water intensive industrial sectors has resulted in an increase of 82% GPI compliance in 2023, compared to just 39% in 2017. Also, 47.2% reduction of BOD load was observed from 26 TPD in 2017 to 13.73 TPD in 2023 from industrial effluent.
  - Charter implementation has yielded remarkable reductions in specific freshwater consumption and effluent discharge across various sectors in the Ganga Basin:
  - Pulp & Paper sector: The specific freshwater consumption decreased from 16.91 KL/MT in 2017 to 10.11 KL/MT in 2024, marking a 40% reduction.
  - Sugar sector: The specific freshwater consumption decreased from 299 KL/MT in 2017 to 68.03 KL/MT in 2024, marking a 77.2% reduction.
  - Textile sector: The specific freshwater consumption decreased from 141 KL/MT in 2019 to 30.46 KL/MT in 2024, marking a 78.3% reduction.
  - Distillery sector: The specific freshwater consumption decreased from 15 KL/KL in 2017 to 4.65 KL/KL in 2024, marking a 69% reduction.
- #### 5. National Ambient Noise Monitoring Net-

**work**

The following steps have been taken to monitor and improvement of noise pollution:

- The National Ambient Air Quality in respect of Noise for day & night has been notified in Schedule III under Rule 3 of The Environment (Protection) Rules, 1986.
- The CPCB in association with State Pollution Control Boards (SPCBs) has established National Ambient Noise Monitoring Network (NANMN) in 10 Metro-Cities (Bengaluru, Chennai, Delhi, Hyderabad, Kolkata, Lucknow, Bhopal, Vishakhapatnam, Vijayawada and Mumbai) having 82 Noise Monitoring Stations.

**6. Development of Portal**

Development of Common Consent Portal for the Unified Consent & Authorization Management System, Development of Environmental Relief Fund Portal, Common EPR Portal and Eco-Mark Portal.

**7. Important steps taken for industrial pollution control**

- CPCB has initiated Online Continuous Emission & Effluent Monitoring System (OCEMS) to promote self-regulation among highly polluting industries (17 categories), Grossly Polluting Industries (GPIs) and Common facilities i.e. Incinerators of Common Hazardous Waste Treatment Storage and Disposal Facilities (TSDFs), Incinerators of Common Bio-medical Waste Treatment and Disposal Facilities (CBWTFs), Common Effluent Treatment Plants (ETPs) and Sewage Treatment Plants (STPs). Currently, about 7,649 Industries have installed OCEMS & providing online data through about 44,000 devices on 15-minute basis to CPCB, SPCBs & PCCs
- CPCB has revised the methodology for classifying sectors based on their pollution po-

tential. Based on the Pollution Index (PI), industries have been categorized into Red, Orange, Green & White Category. PI is a function of water pollution, air pollution, hazardous waste generation, fuel consumption and amount of waste water generation. So far, 419 industrial / non-industrial sectors (Red: 124, Orange: 135, Green: 94, White: 54 and Blue:12) have been categorized based on revised criteria of Pollution Index. A new category “blue category” was introduced to separate out Essential Environmental Services (ESS) required for management of waste generated from domestic / household activities.

CPCB has issued directions on 12.02.2025 to all SPCBs/PCCs under section 18(1)(b) of the Water Act, 1974 and the Air Act, 1981 for implementation of Classification-2025.

- Environmental Standards have been notified under Schedule-I: Aluminium Industries, Pesticide Industries and Pulp & Paper Industries, Amendment in the Notification (07.12.2015) of coal or lignite based thermal power plants w.r.t. specific water consumption limits vide dated 03.07.2025 and applicability of SO<sub>2</sub> emission standards for the Category A,B,C Thermal Power Plants vide dated 11.07.2025. by MoEF&CC. Draft Standards notified for Water quality standards for Coastal water and Marine and Distillery So far, environmental standards have been notified under Schedule-I of EPA, 1986 for 79 sectors. For remaining sectors, general standards notified under Schedule-VI of EPA are applicable.
- Based on Polluter pay Principle, CPCB, SPCBs and PCCs started imposing Environmental Compensation (EC) against the industries, common facilities which are violating the environmental norms / standards for strict compliances.

## 8. Environmental Quality Monitoring of Polluted Industrial Areas (PIAs) for Evaluation of Comprehensive Environmental Pollution Index (CEPI):

- Comprehensive Environmental Pollution Index (CEPI) is used to characterize quality of environment at a given location following the algorithm of source, pathway and receptor. CEPI relates to evaluation of environmental quality in industrial area based on air, surface water and groundwater pollution as well as based on industries and health statistics. The industrial areas have been categorised as given below:
  - CEPI scores 70 and above are considered as Critically Polluted Area (CPA)
  - CEPI scores between 60 and 69 are considered as Severely Polluted Area (SPA)
  - CEPI scores less than 60 are considered as Other Polluted Area (OPA)
- CPCB revised CEPI criteria in 2016 in concurrence with MoEF&CC, eliminating the subjective factors but retaining the factors which can be monitored, in order to ensure greater transparency and objectivity in evaluating the environmental quality scenario in the industrial clusters. Following the revised CEPI-2016 methodology, an assessment of 100 Industrial Areas was carried out during 2018 and based on the assessment, 38 Industrial Areas were identified as Critically Polluted Areas (CPAs) and 31 Industrial Areas as severely polluted areas SPAs.
- Based on the direction issued by CPCB, the

concerned SPCBs / PCCs have prepared the Action Plans for improvement of environmental quality in these 69 identified areas to bring down CEPI scores and the same are at different stages of implementation. The CEPI Action Plan Review portal has been developed by CPCB to facilitate SPCBs / PCCs to upload the data regarding the status of implementation of action plan, monitoring carried out, state review meetings of concerned CPAs / SPAs.

- CPCB in concurrence of MoEF&CC has developed a "Methodology for Selection of Polluted Industrial Areas for CEPI Monitoring" to select CPAs, SPAs, Other Polluted Areas, and new industrial areas annually. As per the methodology, If CEPI score during two consecutive re-assessments (Pre-monsoon and Post Monsoon) results in reduced CEPI score to the extent of cut-off level defined for CPA/SPA, then such area may be considered for change in status from CPA to SPA or SPA to Other Polluted area.
- Based on the above methodology, CPCB proposed to carry out CEPI monitoring for a period of five years in selected 50 industrial areas to evaluate CEPI score.

## 9. Status of Court / Tribunal Cases:

The cases filed by the individuals, entity, organizations, etc. before all courts of India where CPCB is a party Respondent has been increasing over a period of time for protection of the Environmental Pollution. The number of cases handled during Financial Year 2024-2025 are as under:

Particulars	Supreme Court	High Courts	NGT Principal Bench	NGT Zonal Benches
As on March, 2025	208	414	410	393
New cases till 25.11.2025	19	68	125	113
Disposed of till 25.11.2025	07	33	42	53
As on 25.11.2025	220	449	493	453

## 10. Waste Management:

### a. Hazardous Waste Management:

As per the inventory, about 18.51 Million MT of hazardous waste is generated during 2023-24, out of which about 10.06 Million MT i.e. 54.35 % of overall hazardous waste generated was either recycled or utilized. Out of 8.61 Million MT, about 2.35 Million MT of hazardous waste was recycled, 2.31 Million MT of HW was Co-processed and about 3.95 Million MT of hazardous waste was utilized.

During the year 2024-25, CPCB has issued 116 number of Standard Operating Procedure (SOP) for utilization of about 84 types of Hazardous and Other Wastes (Management & Transboundary Movement) Rules, 2016 till March, 2025. Out of which, 15 nos of SOPs have been developed during the year 2024-25.

CPCB has developed portal for Implementation of Used Oil EPR. There are 21 Producers and 05 Recyclers have been registered with CPCB till March, 2025.

### b. Bio-Medical Waste Management:

There are 247 no. of Common Bio Medical Waste Treatment Facilities (CBWTFs) used for treatment and disposal of biomedical

waste, and 30 CBWTFs are under construction. At present, cumulative treatment and disposal capacity of 2,122 MT/day that includes Incineration capacity of 1031 MT/day and autoclave capacity of 1091 MT/day that shows that available capacity is more than the generation of biomedical waste that is 815 MT/day.

### c. Fly Ash Management:

Fly ash generated by Thermal Power Plants (TPPs) is mainly utilized in cement plants, brick manufacturing units, road and flyover embankments, reclamation of low lying areas and back filling of abandoned mines Accordingly, the percentage of ash utilization has increased from 59.81% in 2015-16 to 98.10% in 2024-25, against the total ash generation of 350.34 Million Tons from a total installed capacity of 2,29,861.15 Mega Watts of coal and lignite based TPPs during 2024-25.

CPCB has developed Ash Portal for registration of coal / lignite based TPPs for uploading ash generation, ash utilization and ash availability data.

### d. Plastic Waste Management:

Centralized EPR Portal for plastic packaging has been developed by CPCB in accor-

dance with EPR guidelines notified by MoEF&CC in February, 2022 through 4th Amendment to PWM Rules.

CPCB has framed the Standard Operating Procedure (SOP) and developed the online portal for certification of compostable Manufacturers/Sellers. There are 56,355 Brand-Owners, 2,926 Producers and 55 Importers have been issued registration. As per provision 4 (h) of PWM Rules, 2016, certificates have been issued to 299 compostable Manufacturers / Sellers. Further, CPCB has prepared “Compendium of Eco-Alternatives to Single Use Plastics (SUP)”.

CPCB initiated the Phase-I of the audit of registered PWP's generating EPR certificates >200 tons on the EPR portal. Further, letter has been issued to all CPCB RDs and SPBC/PCCs for initiating the phase II of the audit with 325 certificate generating PWP units. Phase II of the audit is scheduled to be completed on December 31, 2025.

**e. E-Waste Management:**

E-Waste (Management) Rules, 2022 has been notified on 02nd November, 2022 and implemented since 01st April, 2023 and have superseded E-Waste (Management) Rules 2016. CPCB has developed an online EPR Portal for the management of E-Waste with the provisions of registration of stakeholders, transection of EPR credits between Producers, Recycler & Refurbishes for the fulfillment of EPR obligations.

As on date, 10,326 Producers, 381 Recyclers, 99 Manufacturers & 128 Refurbishers are registered under E-Waste Portal. The annual processing capacity of 381 registered recyclers is 33,17,787.576 TPA. In FY 2023-24, registered recyclers transferred a total of

2,61,220 MT of EPR certificates to registered producers, against the EPR obligation of 2,66,616 MT.

**f. Battery Waste Management:**

Battery Waste Management (Amendment) Rules, 2022 as amended has been notified on 22.08.2022. Accordingly, 3,937 Producers and 473 Recyclers were registered on the Battery Waste Portal till date.

**g. Waste Tyre Management:**

CPCB has developed Registration Modules for Producers & Recyclers of waste tyres. Accordingly, 266 Producers and 558 Recyclers were registered on the Waste Tyre EPR Portal till date. The annual processing capacity of 559 registered recyclers is 17,077,430.4 TPA. In FY 2023-24, 198 registered recyclers transferred a total of 19,12,849.503 MT of EPR certificates to registered producers, against the EPR obligation of 20,38,502.515 MT.

**11. Industrial CAAQMS Portal:**

Industrial Air Quality Management Portal has been developed to collect, store, and analyze data from Continuous Ambient Air Quality Monitoring System installed in industrial premises. The portal supports visualization of ambient air quality data in graphical as well as tabular formats. At present, there are 562 stations integrated to the network.

**12. Sameer App:**

Sameer App was created by CPCB to create public awareness about air quality and provide a platform for grievances redressal. This App provides hourly updated information on AQI for more than 289 cities using real time data. It can be readily accessed using the interactive map format. It provides real-time AQI, pollutant-wise sub-index and monthly calendar de-

pecting overview of AQI for each monitoring location. Daily AQI bulletin published by CPCB is uploaded on the App at 4 PM. The App also issues advisories through push notifications to the public as per prevailing air quality levels. This CAAQMS data is made available to public and various agencies through the CPCB CCR Portal (<https://airquality.cpcb.gov.in>). Since its launch, it has been downloaded by 2.5 lakhs users on Android and iOS platforms.

Also, Sameer App provides a facility for lodging grievances related to air pollution. The complainant can upload photographs along with complaint, and geo-coordinates are automatically captured for pinpointing exact location of source of air pollution for facilitating prompt action by concerned agencies. The complaints are automatically forwarded to implementing agencies depending on the location of the complaint. For Delhi-NCR, more than 40 agencies responsible for mitigation of air pollution are configured on the App which is well integrated with complaint management system of implementing agencies. Since Jan-

uary, 2025 till date, more than 3855 complaints are received on Sameer App. Out of these around 2152 complaints ( 56%) were resolved through coordination with more than 40 implementing agencies.

### 13. Social Media Platform

CPCB has created Social Media Platforms to use them for dissemination of information on pollution related issues, creating awareness on functions, schemes and activities of CPCB and giving citizens the facility to reach out to CPCB for raising air pollution related queries. Presently, CPCB is reachable at Twitter, Facebook, Instagram and YouTube. In current year, more than 400 creatives have been posted on Social Media Platforms by CPCB.

Social Media Accounts are also being used to redress public complaints on air pollution in Delhi NCR, wherein public grievances received on CPCB account are being forwarded to the handles of concerned local agencies.

### Annexure - R&D projects granted financial assistance by the Commission

S. No.	Name of project along with Detailed Project Report (DPR)	Cost of project and year wise Budget Allocated	Originally targeted date of completion	Name of PI and co-PI allotted	Current status ( ongoing/ completed)
1.	Use of Artificial Intelligence (AI)/ Machine Learning (ML) tool for vehicle counting by uploading the CCTV footage on Cloud Platform.	Rs. 50.0 lakhs + GST @ 18%)	15 months (30.06.2024)	Dr. K.V. George, Chief Scientist & Head, Air Pollution Control Division, NEERI, Nagpur	Field study completed. Report awaited.

S. No.	Name of project along with Detailed Project Report (DPR)	Cost of project and year wise Budget Allocated	Originally targeted date of completion	Name of PI and co-PI allotted	Current status (ongoing/completed)
2.	Addressing Vehicular Traffic Induced Road Dust re-suspension with S&T based Action Plans for Air Quality Improvement in Delhi NCR	Rs. 48.5 lakhs + GST @ 18%)	12 months (31.03.2024)	Dr. S. K. Goyal, Chief Scientist & Head, CSIR-NEERI,  Dr. Neeraj Sharma, Chief Scientist, TPE Division, CRRI	Completed
3.	An Autonomous Drone Swarm Framework for Real Time Air Quality Monitoring and Pollutant Quantification in NCR hotspots.	Rs. 34.2792 lakhs	24 months (18.01.2025)	Dr. Ravi Kumar, Associate Professor, Thapar Institute of Engineering and Technology, Patiala, Punjab	Ongoing
4.	Decision Support System for Air Quality Management in Delhi and its Bordering Districts in the NCR	Rs. 31.98 lakhs	24 months (01.03.2025)	Dr. Gaurav Govardhan, Scientist 'C' IITM, Pune	Completed
5.	“Trial of Ambient Air Purification System (APS) in a Market Place in Delhi NCR” Instead of market place, trial study will be conducted at Anand Vihar, ISBT, Delhi	Rs. 59.3154 lakhs including Tax	06 months (18.01.2024) extended upto March, 31, 2024	Dr. K.S. Rajan, Professor, Dept. of Chemical Eng. SASTRA Deemed University, Thanjavur	Completed

S. No.	Name of project along with Detailed Project Report (DPR)	Cost of project and year wise Budget Allocated	Originally targeted date of completion	Name of PI and co-PI allotted	Current status (ongoing/completed)
6.	Under actuated Filterless Air Cleaner Retrofit for Rolling Stock and Vehicles	Rs. 31.35 lakhs	24 months (13.02.2025)	Dr. Bahni Ray, Assistant Professor, Department of Mech. Eng., IIT Delhi, Shri Karan Rao, Founder, CEO, Swachh. io	Ongoing
7.	Evaluation of Retrofitment of 2 & 3 Wheeler Auto-rickshaws with Electric Drive as an option for improvement in air quality in NCR	Rs. 105.0 lakhs	12 months (20th February 2024) extended upto 31.07.2024)	Shri Ravindra Kumar, GM, ARAI, Kothrud, Pune	Completed

## 2.3. Hazardous Substances Management

### a. Introduction

Hazardous Substances Management (HSM) Division is the nodal point in the Ministry for management and safe use of chemicals and wastes. The HSM Division is involved in formulation and administration of rules pertaining to wastes and chemicals. The Division is also the nodal point for multilateral conventions related to wastes and chemicals representing Government of India.

### b. Major programmes/activities

#### i. Solid Waste Management Rules, 2016:

Solid Waste Management Rules, 2016 were notified on 8th April, 2016 and its applicability has been extended beyond municipal areas to urban agglomerations, census towns, notified indus-

trial townships, etc. The source segregation, door to door collection of waste has been mandated to channelize the waste for useful purposes such as recovery, reuse and recycle.

#### ii. E-Waste (Management) Rules, 2022:

E-Waste (Management) Rules, 2022 notified on 2nd November, 2022 and is in force since 1st April, 2023. New rules covers 106 Electrical and Electronic Equipment (EEE) including Solar PV waste. These Rules are a transformative step towards implementation of the announcement made by Hon'ble Prime Minister to promote Circular Economy. New rules provide Extended Producer Responsibility (EPR) regime for e-waste recycling according to the needs of the current scenario.

#### iii. Hazardous and Other Wastes (Management

**and Transboundary Movement) Rules, 2016:**

The Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 were notified on 4th April, 2016 incorporating waste management hierarchy in the sequence of priority i.e. prevention, minimization, reuse, recycling, recovery, co-processing and safe disposal. These rules shall apply to every occupier of the facility who is engaged in handling, generation, collection, storage, packaging, transportation, use, treatment, processing, recycling, recovery, pre-processing, utilization, offering for sale, transfer or disposal of hazardous and other wastes. The import/export of hazardous and other waste is also being regulated through the said Rules.

**iv. Bio-Medical Waste Management Rules, 2016:**

Bio-Medical Waste Management Rules, 2016 were notified with the objectives to improve segregation, collection, processing, treatment and

disposal of infectious bio-medical waste in an environmentally sound and safe manner. These rules are applicable to all persons who generate, collect, receive, store, transport, treat, dispose, or handle bio medical waste in any form including hospitals, nursing homes, clinics, dispensaries, veterinary institutions, animal houses, pathological laboratories, blood banks, AYUSH hospitals, clinical establishments, research or educational institutions, health camps, medical or surgical camps, vaccination camps, blood donation camps, first aid rooms of schools, forensic laboratories and research labs.

**v. Plastic Waste Management Rules, 2016:**

Plastic waste generated in the country, based upon information provided by State Pollution Control Boards (SPCBs) / Pollution Control Committees (PCCs) to Central Pollution Control Board, the quantity of plastic waste generation during the period 2018-19 to 2022-23 is given below:

Financial Year	Plastic waste Generation (TPA)
2018-19	3360043.45
2019-20	3469781.73
2020-21	4126808.44
2021-22	3901802.06
2022-23	4136188.83

The Plastic Waste Management Rules, 2016, as amended, provide the statutory framework for plastic waste management in an environmentally sound manner throughout the country. The Rules prohibits manufacture, import, stocking, distribution, sale and use of plastic sheets less than fifty microns in thickness in the country. There is complete ban on sachets using plastic material used for storing, packing or selling gutkha, tobacco and pan masala. The Rules also provide

measures for recycling of plastic waste and its end of life disposal in an environmentally sound manner.

In order to address pollution caused by littered and unmanaged plastic waste the Ministry of Environment, Forest and Climate Change has banned identified single use plastic items, which have high littering potential and low utility with effect from 1st July, 2022 under Plastic Waste Management Rules. Plastic carry bags having

thickness less than one hundred and twenty microns have also been prohibited with effect from the 31st December, 2022. Further, over and above the Plastic Waste Management Rules, 2016, as per Annual Report of Central Pollution Control Board, thirty five States/UTs have issued notifications/orders to introduce regulations pertaining to complete or partial ban on plastic carry bags and/or identified single-use plastic items.

The Ministry of Environment, Forest and Climate Change notified the Guidelines on Extended Producer Responsibility (EPR) for plastic packaging vide Plastic Waste Management (Amendment) Rules, 2022, on 16th February, 2022. The Guidelines stipulate mandatory targets on EPR, recycling of plastic packaging waste, reuse of rigid plastic packaging and use of recycled plastic content. The guidelines provide for moving towards sustainable plastic packaging and reducing the plastic foot print. The implementation of ban on identified single use plastic items coupled with extended producer responsibility on plastic packaging will reduce pollution caused by littered and unmanaged plastic waste.

The following steps have been taken to strengthen implementation of Plastic Waste Management Rules, 2016 and to implement ban on identified Single Use Plastic items:

- (i) All thirty-six States/UTs have constituted the Special Task Force under the chairpersonship of the Chief Secretary / Administrator for elimination of identified single use Plastic items and effective plastic waste management. A National Level Taskforce has also been constituted by the Ministry for taking coordinated efforts to eliminate identified single use plastic items and effective implementation of Plastic Waste Management Rules, 2016.
- (ii) Directions have been issued under Section 5 of the Environment (Protection) Act, 1986 for setting up of institutional mechanism for enforcement of provisions of Plastic Waste Management Rules, 2016 to all State Pollution Control Boards / Pollution Control Committees. Directions have also been issued to E-commerce companies, leading Single Use Plastic sellers/users, and plastic raw material manufacturers with respect to phasing out of identified single use plastic items. Separately, custom authorities have been asked to stop the import of banned SUP items.
- (iii) For effective monitoring of ban on identified Single Use Plastic items and plastic waste management in the country, the following on-line platforms are in operation: (a) National Dashboard for monitoring of comprehensive action plan implementation, (b) CPCB Monitoring Module for Compliance on Elimination of Single Use Plastic, and (c) CPCB Grievance Redressal App.
- (iv) Regular enforcement drives have been undertaken by CPCB, SPCBs/PCCs along with local authorities to implement ban on identified single use plastic items and on plastic carry bags having thickness less than one hundred twenty microns.

The total Extended Producer Responsibility (EPR) of registered Producers, Importers and Brand owners (PIBOs) for plastic packaging is around 8.3 million tonnes for the year 2024-25, as per national dashboard of the Centralized Online Portal on Plastic Packaging, under EPR Guidelines. Already, around 57746 PIBOs and 2969 Plastic Waste Processors are registered on the Centralized EPR portal for plastic packaging. The quantum of EPR certificates generated by registered plastic waste processors after processing of plastic packaging waste including recycling amounts to 18 million tonnes.

**vi. Environment (Construction and Demolition) Waste Management Rules, 2025:**

For the first time the Government notified Construction & Demolition Waste Management Rules, 2016. The rules apply to everyone who generates construction and demolition waste such as building materials, debris, and rubble waste resulting from construction, re-modelling, repair and demolition of any civil structure of individual or organization or authority. The rules mandate for collection, transportation, storage and re-processing of C&D waste. Emphasis was given on recycling/ recovery of valuable materials and C&D waste as 'RESOURCE'. Scope of the rules includes construction & demolition/ renovation of buildings, excavation, road/ flyover/ underpass/ bridge construction, laying utility pipelines etc. Timeline were prescribed for creation of physical reprocessing facility at all places for recycling C&D waste.

To further strengthen the Construction and Demolition waste management in the country. The Ministry of Environment, Forest and Climate Change has notified the Environment (Construction and Demolition) Waste Management Rules, 2025, vide G.S.R. 219(E), dated 2nd April 2025. These rules supersede the earlier Construction and Demolition (C&D) Waste Management Rules, 2016, and will come into effect from 1st April 2026. The revised framework marks a significant policy shift, aiming to promote environmentally sustainable management of construction and demolition waste while fostering a circular economy. The rules introduced the concept of Extended Producer Responsibility (EPR) for construction and demolition waste. The Rules set specific targets for the use of recycled materials in construction, reconstruction, and road infrastructure projects, encouraging the reuse of materials that would otherwise con-

tribute to environmental degradation.

**vii. Battery Waste Management Rules, 2022:**

Ministry of Environment, Forest and Climate Change, Government of India published the Battery Waste Management Rules, 2022 on 24th August, 2022 to ensure environmentally sound management of waste batteries. New rules replace Batteries (Management and Handling) Rules, 2001. The rules cover all types of batteries, viz. Electric Vehicle batteries, portable batteries, automotive batteries and industrial batteries. The rules function based on the concept of Extended Producer Responsibility (EPR) where the producers (including importers) of batteries are responsible for collection and recycling/refurbishment of waste batteries and use of recycled materials from wastes into new batteries.

**viii. Ash Utilisation notification, 2021:**

The Ministry of Environment, Forest and Climate Change has reviewed the existing fly ash notification, 1999 and issued new notification on 31st December, 2021 with an aim to achieve 100% ash utilisation generated from coal and lignite based thermal power plants. The notification mandates thermal power plants to achieve 100% utilisation of current generation of ash in 3-5 year cycle and legacy ash in 10 years. The eco-friendly purposes for utilisation of ash have been prescribed. Environmental compensation is to be imposed on thermal power plants and other user agencies for non-compliance of provisions. Users agencies involved in road construction, roads and flyover embankments laying, construction of dams, mining, manufacture of ash based products, building construction have been mandated to use ash or ash based products located within 300 km radius of thermal power plants.

**ix. Environment Protection (End-of-Life Vehi-**

**cles) Rules, 2025:**

The Ministry of Environment, Forest and Climate Change notified the Environment Protection (End-of-Life Vehicles) Rules, 2025 on 06.01.2025 for environmentally sound management of end-of-life vehicles. The rules apply to all types transport and non-transport vehicles, except agricultural tractor, agricultural trailer, combine harvester, power tiller. Under the rules, the producers of transport and non-transport vehicles have been given mandatory Extended Producer Responsibility (EPR) targets for scrapping of end-of-life vehicles, in the range 8% to 18% for the vehicles placed in the market 20 years back for non-transport vehicles and 15 years back for transport vehicles. Registered Vehicle Scrapping Facilities (RVSFs) have been obligated to generate EPR certificates based on the weight of the steel recovered by scrapping of end-of-life vehicles or any other steel scrap materials from the automobile sector processed at RVSF.

**x. Environment Protection (Management of Contaminated Sites) Rules, 2025:**

The Ministry of Environment, Forest and Climate Change notified the Environment Protection (Management of Contaminated Sites) Rules, 2025 on 24.07.2025 for identification and management of contaminated sites in the country. The process of identification, determination and remediation of contaminated sites has been defined under the said Rules. Under the Rules, the responsible person has been mandated to prepare the remediation plan, carry out the remediation activities of the contaminated sites as per the remediation plan, and submit the progress reports periodically to CPCB and the concerned SPCB/ PCC. In case of orphan contaminated sites and sites under temporary possession of banks or judicial proceedings, SPCB/ PCC has been given the responsibility to prepare the remediation plan

and conduct the remediation activities. The expenditure for remediation activities in this regard is to be met by the Central and State Government in the ratio and manner prescribed in the Rules.

**xi. Chemical Safety:**

The Ministry of Environment, Forest and Climate Change notified the Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989 and the Chemical Accidents (Emergency Planning, Preparedness and Response) (CAEPPR) Rules, 1996 for ensuring chemical safety in the country. Objective of these rules is to prevent chemical accidents from industrial activities and mitigate impacts of chemical accidents. Occupier of the hazardous chemicals is required to declare major hazards of industrial activity to public and prepare on-site emergency plan & safety reports, conduct regular safety audits and mock-drills, etc.

**xii. Public Liability Insurance Act, 1991:**

The Public Liability Insurance Act, 1991 enacted with a purpose to provide immediate relief to the persons affected by accident occurring while handling hazardous substance and for matters connected therewith or incidental thereto. PLI Act, 1991 covers death or injury to any person other than workman (General Public) or damage to property resulting from an accident while handling hazardous substance. The Act covers 179 chemicals and flammable substances. As per Section 7A of the Amended Act, 1992, the Major Accident Hazard (MAH) units shall contribute an amount equal to the amount of premium of the insurance policy to the Environment Relief Fund (ERF) created by the Central Government.

**xiii. Circular Economy:**

- ‘Circular Economy’ is a focus of Government of India. India had brought in market based EPR regulation in 2022 which has led to the growth of recycling sector across five waste streams viz. plastic packaging, E-waste, battery waste, waste tyre and used oil.
- The EPR regulation has become a tool for operationalization of “Waste to Wealth” and Circular Economy.
- Under the EPR concept the producer, importer or brand owner (PIBOs) who introduces the product in the market becomes obligated under law for its environmentally sound management. Regulations on market based Extended Producer Responsibility (EPR) principle have been notified in respect of plastic packaging waste, battery waste, e-waste, waste tyre, used oil, end-of-life vehicles, Scrap of Non- Ferrous Metals and construction & demolition waste.
- Introduction of market based EPR regulation by MoEFCC since 2022 in different waste streams has not only led to rapid growth of recycling sector but has also led to environmental protection and resource conservation through environmentally sound management of wastes and reduction in use of virgin material.
- Extended Producers Responsibility (EPR) is a policy tools being implemented as an environmental protection strategy to achieve objectives of Circular economy by making the manufacturer or Importer or Producer or Brand Owner of the product to take-up responsibility for the life-cycle of their products placed on market, after its end of use.
- As per the mandate given under the above EPR framework, till date following 05 EPR Portals have been developed by CPCB and are operational for implementation of EPR Frameworks:
  - EPR Portal for Plastic Packaging
  - EPR Waste Tyre Management Portal
  - EPR Portal for Battery Waste Management
  - E-waste Management System
  - EPR Portal for Used Oil Management.
- Common EPR portal, Uniform Consent Portal and electronic trading platform for exchange of EPR certificates between recyclers and producers are under development.
- Across all EPR regulations, Producers/OEMs are registered with CPCB and recyclers/refurbishers are registered with concerned SPCB/PCCs.
- Verification of EPR certificates of recyclers is done by CPCB/SPCB through periodic audits.
- Status on Implementation of Extended Producer Responsibility Frameworks (as on 20/12/2025):

S.No	Waste Type	Registered Producers Nos.	Registered Recyclers (Nos.)	EPR Certificate generated (in tonnes)	Total EPR certificate transferred (in tonnes)
1.	Plastic Packaging	57,428	2950	179.07 lakh	144.42 lakh
2.	E-Waste	10,709	382	10.51 lakh	7.69 lakh
3.	Battery Waste	4072	488	13.48 lakh	10.28 lakh

S.No	Waste Type	Registered Producers Nos.	Registered Recyclers (Nos.)	EPR Certificate generated (in tonnes)	Total EPR certificate transferred (in tonnes)
4.	Waste Tyre	285	571	112.15 lakh	76.85 lakh
5.	Used Oil*	83	76	----	---
	Total	75577	4467	315.21 lakh MT	239.24 lakh MT

\*Used Oil EPR regulations commenced from 1st April, 2024.

EPR - End of Life Vehicles (Phase-wise to go live from January 7, 2026)

EPR – Construction & Demolition waste (Phase-wise Go Live from April 10, 2026)

EPR - Non-Ferrous Metal (Phase-wise Go Live from April 24, 2026)

#### xiv. **Multilateral Agreements:**

The Division is the nodal point for the following multilateral agreements:

##### a) **Basel Convention**

The Convention regulates transboundary movement of hazardous wastes and disposal (import and export) and prescribes environmentally sound management of wastes domestically. The Convention also restricts trade on plastic waste. India ratified the Convention in June, 1992. To implement the provisions of transboundary movement of hazardous waste, the Ministry has established a Prior Informed Consent (PIC) mechanism for regulating import and export of hazardous waste under Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016.

##### b) **Stockholm Convention**

Stockholm Convention is a global treaty to protect human health and the environment from Persistent Organic Pollutants (POPs). The Convention obligates all parties to eliminate production and use of intentionally produced POPs, eliminate unintentionally produced POPs where feasible, and manage and dispose of POPs wastes in an environ-

mentally-sound manner. India banned 12 chemicals (dirty dozen) during its ratification of the Convention in January, 2006. Subsequently, 7 more chemicals have been ratified in October, 2020. These chemicals include pesticides, industrial chemicals and unintentionally produced POPs.

To implement the obligations, the Ministry notified the Regulation of Polychlorinated Biphenyls Order, 2016; and Regulation of Persistent Organic Pollutants Rules, 2018 to prohibit production, import and use of hazardous chemicals. The Ministry has prepared National Implementation Plan for 12 POPs.

##### c) **Rotterdam Convention**

The objective of the Rotterdam Convention is to promote shared responsibility and cooperative efforts among parties in the international trade of chemicals to protect human health and the environment, and contribute to the environmentally sound use of chemicals. The Prior Informed Consent (PIC) procedure is a mechanism for formally obtaining and disseminating the decisions of importing Parties as to whether they wish to receive future shipments of those chemicals

listed in Annex III of the Convention and for ensuring compliance with these decisions by exporting Parties.

India ratified the convention in May, 2005. A total of 52 chemicals are listed in Annex III includes pesticides and industrial chemicals. India has established the mechanism for Prior Informed Consent for import and export of hazardous chemicals. Designated National Authorities (DNA) viz. Ministry of Chemical Fertilizers and Ministry of Agriculture and Family Welfare have been nominated for grant of PIC for industrial chemical and pesticides, respectively.

#### d) Minamata Convention

The Minamata Convention is a global legally binding instrument with the objective to protect human health and the environment from anthropogenic emissions and releases of mercury and mercury compounds. The Convention addresses the life cycle of mercury, including supply, trade, mercury-added products, industrial processes using mercury, artisanal and small-scale gold mining, emissions to air, releases to land and water, interim storage, waste and contaminated sites. India ratified the Convention in June, 2018.

The Convention provides timelines to phase out certain mercury added products and manufacturing processes involving mercury. India's interests of use of mercury in Ayurveda, Siddha and Unani (ASU) medicines and traditional/religious practices have been protected under the Convention. India has established a mechanism for Prior Informed Consent for import and export of mercury to meet its obligations.

Delegation from India participated in the

sixth meeting of the Conference of the Parties (COP-6) held from 3rd to 7th November, 2025 in Geneva Switzerland. India secured the approval of COP-6 for the extension of phase-out dates of the following mercury-added products for another five years (from 2026 to 2030):

- Switches and relays
- High pressure mercury vapour lamps (HPMV) for general lighting purposes
- Topical antiseptics
- Non-electronic measuring devices,

#### e) Strategic Approach to International Chemicals Management (SAICM)

The Strategic Approach to International Chemicals Management (SAICM) was succeeded by the Global Framework on Chemicals (GFC) in September 2023. SAICM is a global policy framework to promote sound management (production and use) of chemicals throughout their life-cycle to minimise significant adverse effects on human health and environment. The newly adopted Global Framework on Chemicals is a comprehensive initiative designed to cover the entire chemical lifecycle, including products and waste, emphasizing a “life cycle approach,” advocating for responsible management, and allowing flexibility for future instruments. It encompasses various objectives and targets related to transparency and sustainability, particularly those relevant to the Plastic Treaty.

#### f) Global Framework on Chemicals (GFC)

The GFC was adopted by the fifth ICCM, the ICCM5. It's a voluntary global framework that aims to protect human health and the planet from chemicals and waste. The GFC has five strategic objectives and 28 targets to be achieved by 2030 or 2035.

The GFC is a multi-stakeholder agreement that includes representatives from governments, the private sector, non-governmental and intergovernmental organizations, youth, and academia to promote safe use of chemicals.

Ministry has notified a Regulation on lead content in Household and Decorative Paints Rules in November, 2016 to prohibit manufacture/ trade/ import/ export household and decorative paints with Lead or Lead compounds in excess of 90 parts per billion.

Meeting of Intergovernmental Negotiations Committee (INC) for development of International legally binding instrument on plastic pollution, including in the marine environment.

**g) Intergovernmental Science-Policy Panel on Chemicals, Waste and Pollution (ISP-CWP)**

Intergovernmental Science-Policy Panel on Chemicals, Waste and Pollution (ISP-CWP) has been established on 20 June 2025 at Uruguay, under the mandate of the United Nations Environment Assembly (UNEA) resolution 5/8. The panel has been modelled similar to Intergovernmental Panel on Climate Change (IPCC) and Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES). It aims to improve global understanding, promote international cooperation, and guide effective responses to pollution and chemical management challenges. It focuses on scientific assessments regarding the impacts of chemicals and waste on human health and the environment. India became member of ISP-CWP in December 2025.

**xv. Externally funded projects:**

HSM Division implements the following externally funded projects in collaboration with respective agencies in the field of chemicals and wastes:

i. GEF-UNIDO: Environmentally Sound Management of Poly Chlorinated Biphenyls (PCBs) in India;

ii. GEF-UNIDO: Development and promotion of non-POP alternatives to DDT;

iii. GEF-UNEP: Phasing out mercury measuring devices in healthcare;

iv. UNEP: India-Norway Marine Pollution Initiative;

v. UNEP: Partnership for Action on Green Economy (PAGE);

vi. GIZ: Circular Economy Solutions (CES) preventing Marine Litter in Ecosystems;

vii. EU: EU-Resource Efficiency Initiative (EU-REI), and SWITCH-Asia Programme;

viii. Development of Institutional and Regulatory Framework for Implementation of Minamata Convention in India under Specific International Programme under Minamata Convention on Mercury

ix. GIZ: Waste Solutions for a Circular Economy in India

x. UNDP: GEF-8 Project on Accelerating Transition to a Circular Economy in India's Electrical and Electronic Sector.

xi. UNEP: Review and Update of National Implementation Plan (NIP) under the Stockholm Convention on Persistent Organic Pol-

lutants (POPs) for India

xii. GIZ : Indo German Support Project for Climate Action in India

**c. Activities undertaken:**

- i. Notified Plastic Waste Management (Amendment) Rules, 2025 for effective implementation of EPR Guidelines and removal of difficulties, on 23rd January 2025.
- ii. Ninth meeting of National Taskforce on elimination of single use plastic items and effective plastic waste management was held on 20th November 2025.
- iii. Plastic packaging waste, which is not covered under the phase out of identified single use plastic items, is covered under Guidelines for Extended Producer Responsibility notified on 16th February 2022.
- iv. The following IT based tools have been put in place for effective monitoring:
  - a. National Dashboard on Elimination of SUP and PWM,
  - b. EPR Portal for Plastic Packaging,
  - c. Mobile App for SUP Grievance Redressal,
  - d. Compliance Monitoring module for banned SUP items.
- v. All modules of Centralized online portal for Extended Producer Responsibility for plastic packaging are operational. As on 13th January 2026 the number of registered obligated entities is given below (i) Registered PIBOs: 57746 (ii) Registered Plastic Waste Processors: 2969
- vi. The quantum of plastic packaging waste covered under EPR is a significant proportion of plastic packaging waste being generated in the country. As on date, EPR certificates equivalent to 180.64 lakh tonnes of plastic packaging waste have been generated by registered Plastic Waste Processors, of which 144.42 lakh tonnes of EPR certificates have been transferred online to the registered PIBOs.
- vii. For Year 2024-25, 4767 Urban Local Bodies out of 4991 Urban Local Bodies and 541 District Panchayats out of 665 District Panchayats have submitted their annual reports online under Plastic Waste Management Rules.
- viii. The Indian delegation participated in the Seventeenth meeting of Conference of the Parties to the Basel Convention (BC COP-17), Twelfth meeting of Conference of the Parties to the Rotterdam (RC COP-12) and Stockholm Convention (SC COP-12) held in Geneva, Switzerland from 28 April to 9 May 2025.
- ix. Environment Protection (End-of-Life Vehicles), 2025 rules were notified on 06.01.2025 for environmentally sound management of end-of-life vehicles.
- x. Environment Protection (Management of Contaminated Sites) Rules, 2025 was notified on 24.07.2025 for identification and management of contaminated sites in the country. The process of identification, determination and remediation of contaminated sites has been defined under the said Rules.
- xi. Battery Waste Management Amendment Rules, 2025 was notified on 25.02.2025 regarding the provisions for labelling of EPR registration number on batteries, and the threshold limits for Cadmium and Lead in batteries for marking of 'Cd' and 'PB', respectively, on batteries.
- xii. The EPR portal for battery waste is fully operational. As of the end of December 2025, approximately 4,100 producers and 490 recyclers are registered on the portal. The total quantity of battery waste recycled is around 64.37 lakh tonnes. EPR certificates of 14.20 lakh tonnes have been generated for 10 metals recovered from waste batteries, out of which 11.02 lakh tonnes have been transferred to producers to enable them to meet their EPR obligations.
- xiii. Delegation from India participated in the sixth meeting of the Conference of the Parties (COP-6) held from 3rd to 7th November, 2025 in Geneva Switzerland. India secured the approval of COP-6 for the extension of phase-out dates

of the following mercury-added products for another five years (from 2026 to 2030):

- Switches and relays
- High pressure mercury vapour lamps (HPMV) for general lighting purposes
- Topical antiseptics
- Non-electronic measuring devices, namely barometers, hygrometers, manometers, thermometers, and sphygmomanometers

xiv. Extended Producer Responsibility (EPR) for Scrap of Non-Ferrous Metals notified on 01.07.2025 through amendment in Hazardous and Other Wastes (Management and Transboundary Movement) (HOWM) Rules, 2016 to ensure environmentally sound management of scrap of non-ferrous metal. It will be in force from 1st April, 2026. These rules will cover scrap of non-ferrous Metals i.e. aluminium or copper or zinc or their alloys. It also mandate the manufacturer to use domestically recycled materials in certain percentage for the manufacture of new product

xv. The G20 India Presidency launched the Resource Efficiency and Circular Economy Industry Coalition (RECEIC) at the 4th ECSWG and Ministerial Meeting held from 26th to 28th July 2023. RECEIC is an industry-led coalition that aims to foster greater company-to-company collaboration to enhance resource efficiency (RE) and accelerate circular economy (CE) transition.

- i. Federation of Indian Chambers of Commerce and Industry (FICCI) serves as Secretariat to the RECEIC.
- ii. Founding members have developed the institutional architecture of the coalition and constituted a Steering Committee from among its industry members that develop the Roadmap/workplan of RECEIC and undertake its implementation.
- iii. Currently, there are 59 members of RECEIC from 10 countries including Japan, US, Singapore, UAE, Denmark, UK, Germany, Switzerland, Finland and India.

iv. Technical deliberations/exchanges are ongoing through 05 RECEIC Working groups:

- a. Material Transition in the Chemical Sector
- b. Circularity in Used Oil
- c. Circularity in Textile and Apparel Sector
- d. Dry Cell Batteries
- e. Packaging Reimagined – Alternate & Innovative Solutions

#### **xvi. World Environment Day 2025**

- The Ministry of Environment, Forest and Climate Change, celebrated World Environment Day 2025 at Bharat Mandapam, New Delhi, on 5th June 2025, with the slogan ‘One Nation, One Mission: End Plastic Pollution’. As part of one month long pre-campaign activities undertaken before World Environment Day 2025, around 69,000 events were organized in which around 21 lakh people participated across the country. The event saw the participation of members of industry, civil society, students and Government officers from States and concerned central Ministries, following the ‘Whole of Government’ and ‘Whole of Society’ approach.
- Hon’ble Prime Minister led a special tree plantation initiative with plantation of Banyan sapling under Ek Ped Maa Ke Naam initiative on the occasion of World Environment Day (5th June, 2025) affirming India’s commitment to environmental stewardship. The sapling was planted as a part of the Aravalli Green Wall project, which aims to reforest the 700 kilometres of the Aravalli range. He also flagged off 200 Electric Buses under Delhi Government's sustainable transport initiative, promoting clean urban mobility and symbolizing the nation’s collective responsibility towards ecological balance.
- A one day National Expo on eco-alternatives to banned single-use plastic was also organized on 5th June 2025 at Bharat Mandapam. The expo saw a vibrant participation by startups, recyclers, and local bodies from across

India showcasing innovative technologies and best practices on Eco-alternatives and plastic waste management. As part WED 2025 celebrations three technical sessions were also organized on ‘Perspectives of local bodies on plastic waste’; ‘Promoting startups in Eco-alternatives and plastic waste management’; and ‘EPR on plastic packaging: opportunities and way forward’ were also organized.

- A National Hackathon on Eco-Alternatives to Single Use Plastic Items, organized by CPCB, was launched on World Environment Day 2025. The participants presented novel eco alternatives to SUP including those made from hibiscus lower, chitosan, rice straw etc. Six participants from the leading institutes were awarded in the two categories of Eco-alternatives to thin plastic bags and Sheets. The National Plastic Pollution Reduction Campaign (NPPRC) was launched for the period 5th June to 31st October 2025. The Campaign included activities to reduce plastic pollution in urban and rural areas under Swachhta Hi Sewa programme. The activities also included focus on reducing use of avoidable single use plastics in government offices especially during Special Campaign 5.0.

#### **xvii. Intergovernmental Negotiating Committee (INC)**

- The fifth session of the Intergovernmental Negotiating Committee (INC-5) to develop an international legally binding instrument on plastic pollution including in the marine environment, was held in Busan, Republic of Korea from 25th November 2024 to 1st December 2024. The negotiations at INC-5 could not reach agreement on the commitments related to plastic production, consumption and plastic waste. The Indian delegation has inter alia emphasized that any commitments under the proposed instrument should address plastic pollution as agreed to in the United Nations Environment Assembly resolution 5/14, based

upon the Rio Principles and national circumstances and capabilities of the countries.

- The second part of fifth session of Intergovernmental Negotiating Committee held in Geneva, Switzerland held from 5th August 2025 to 14th August 2025 in Geneva, Switzerland. There were clear divergence on critical issues. The Chair introduced two texts as comprise proposals for consideration of INC on 13th August 2025 and 15th August 2025 as his best attempt to capture delegations’ views, moving the INC closer towards international legally binding instrument and noting that this proposal is a tool for the Committee to shape, mould, or improve. INC Chair highlighted that there clear divergence on four interconnected issues - production, finance, plastic products, and decision making by consensus.
- INC decided that Chair’s Draft Text Proposal of 13 August and 15 August would not form part of the meeting report. In the closing plenary the Indian delegation stressed the importance of consensus, including in the decision making, amendment, and amendment of annexes. It was highlighted that multilateral environmental agreements should be guided by the principles of equity, CBDR, historical responsibility, and consideration of national circumstances, and highlighted that a financial mechanism without these principles defeats the purpose of the International legally Binding Instrument. It was mentioned that as the two draft texts prepared by the INC Chair did not find full support from members, the text negotiated in contact groups could be used for further deliberations. After interventions of many member states at the closing plenary, INC Chair adjourned INC 5.2 to resume the session at a later date.

### **2.3.1 Eco-labelling**

#### **Ecomark Rules 2024**

The Ministry of Environment, Forest and Climate

Change has notified the Ecomark Rules on 26th September 2024 which have replaced the Ecomark scheme of 1991.

The objective of the scheme is to encourage the demand for environment-friendly products, promote lower energy consumption, resource efficiency and circular economy. The scheme seeks to ensure accurate labelling and prevent misleading information on green products.

Ecomark will enable consumers to make informed purchase decision as well as encourage manufacturers to transition to production of environment friendly products leading to promotion of green industries.

Governance structure of Ecomark comprises of Steering Committee chaired by the Secretary, MoEFCC, Central Pollution Control Board (as implementing agency) and Technical Committees. Steering Committee has been constituted on 23rd October 2024 and has members from concerned Ministries/Departments, experts and institutions, and industry associations.

Ecomark is eligible to be availed by those products holding a valid license or a certificate of conformity of Indian Standards under the BIS Act, 2016 and/or falls under the scope of a mandated quality control order issued by the Central Government.

Products accredited under the Ecomark Scheme will adhere to specific environmental criteria, ensuring minimal environmental impact.

At present, the scope of the scheme covers 17 different product categories comprising of 80 types of products such as food additives, soaps, detergents, batteries etc.

## 2.4. Policy and Law

### a. Introduction and Objective

The Policy and Law (P&L) Division deals with the administration/ establishment matters of the NGT; framing of NGT Recruitment Rules/ Amendments in the NGT Act and NGT Recruitment Rules; coordination with the Ministry of Law & Justice and handling of court cases in the Supreme Court of India, various High Courts and NGT (all its Benches).

The P&L Division handles the administrative issues of NGT including their budget alongwith portion of budget related to the ESZ and CP Divisions, which are administrative-in-charge of Dahanu Taluka Environment Protection Authority and Loss of Ecology Authority, respectively. The Division is allocated funds under the Budget Head “National Green Tribunal” and the budget under this is further allocated to –

- National Green Tribunal;
- Grants-in-Aid to Loss of Ecology Authority, Chennai, and
- Grants-in-Aid to Dahanu Taluka Environment Protection Authority, Ahmedabad.

### Legal Monitoring Cell (LMC)

A Legal Monitoring Cell set up in the Policy & Law Division monitors the progress of court cases and also acts as an effective coordinator with various Divisions of the Ministry regarding court cases. The total number of court cases, as on 30.12.2025, pending before the Supreme Court of India, High Courts, National Green Tribunal and other subordinate courts is 3115.

## 2.5. National Green Tribunal (NGT)

The National Green Tribunal (NGT) was set up on 18th October, 2010 under the NGT Act, 2010 for the purpose of effective and expeditious disposal of cases relating to environmental protection and conservation of forests and other natural resources including enforcement of any legal right relating to environment and giving relief and compensation for damages to persons and property and for matters

connected therewith or incidental thereto.

The Tribunal has five places of sitting i.e., the Principal Bench at New Delhi and Zonal Benches at Pune, Kolkata, Bhopal and Chennai. As per Section 4(1) of NGT Act, 2010 the Tribunal shall consist of (a) one full time Chairperson, (b) not less than ten but subject to maximum of twenty full time Judicial Members as the Central Government may, from time to time, notify and (c) not less than ten but subject to maximum of twenty full time Expert Members, as the Central Government may, from time to time, notify. MoEF&CC, in June 2024, advertised the five (05) vacant posts of Judicial Members and five (05) vacant posts of Expert Members in the NGT. Upon completing the process of selection, 02 Judicial and 04 Expert Members of NGT have been appointed in August 2025. Out of these, four Expert Members have assumed the charge in NGT.

# Chapter 3

## ENVIRONMENTAL IMPACT ASSESSMENT AND CLEARANCE



### 3.1. Environmental Impact Assessment (EIA)

1. Environmental Impact Assessment (EIA) serves as a planning instrument designed to incorporate environmental considerations into the development process from the very beginning. In India, EIA was first applied in 1978 for river valley projects and was subsequently extended to major public sector projects that required approval from the Public Investment Board (PIB). These practices were formally institutionalized through the EIA Notification of 1994, which came into force on 27 January 1994. Initially, the notification required environmental clearance for 29 categories of projects, a number that was later increased to 32 based on investment criteria. In 2006, a revised EIA Notification was introduced with the objective of creating a more transparent, efficient, and decentralized system. This revision integrated environmental safeguards at the planning stage and placed greater emphasis on public participation. It also marked a shift from investment-based criteria to impact-based assessment, making environmental clearance mandatory for 39 categories of projects.
2. The EIA Notification, 2006 and the CRZ Notification, 2011 have been amended periodically to further streamline the environmental clearance process. These amendments have also sought to address emerging issues by integrating environmental considerations into the development process, in line with the objective of sustainable development. While granting Environmental Clearance (EC) to development projects, specific conditions, environmental safeguards, and mitigation measures are prescribed to ensure their effective implementation during both the construction and operational phases. These safeguards are aimed at minimizing adverse impacts, inter alia, on (i) air quality, (ii) water quality, (iii) land degradation, (iv) biodiversity, and (v) wildlife habitats. In addition,

tion, projects are required to implement measures such as rainwater harvesting, water conservation, greenbelt development and plantation, wildlife conservation plans, and other related initiatives.

3. Environmental Clearance to Developmental Projects

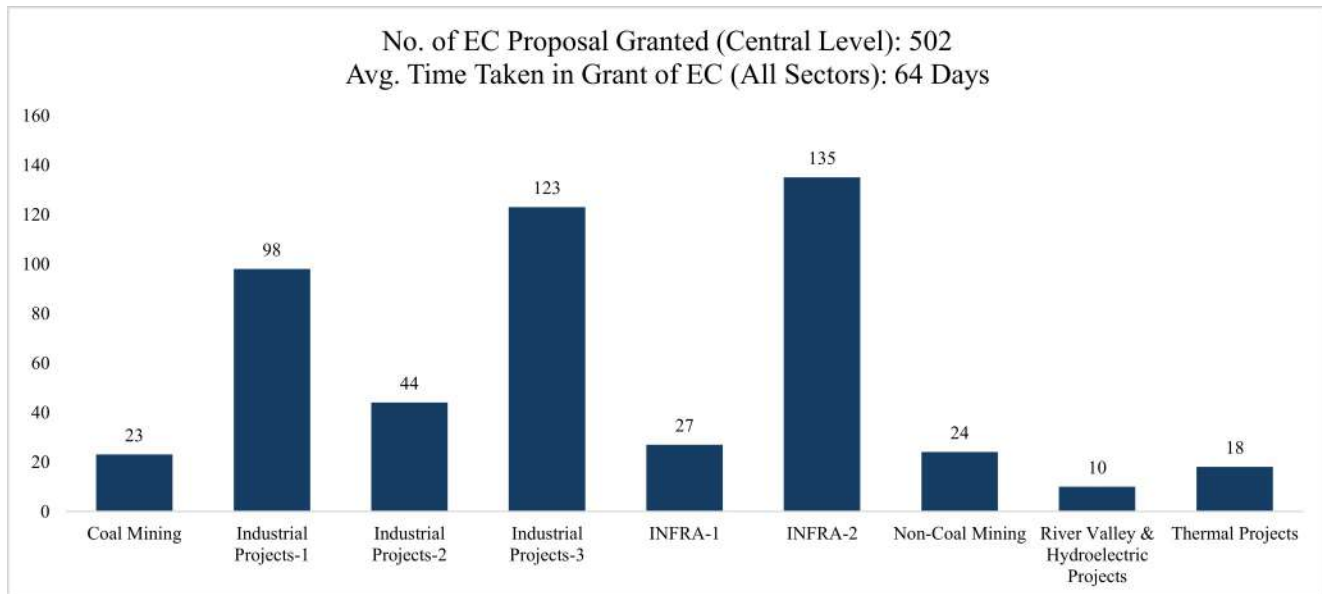
In accordance with the provisions of the Environment Impact Assessment (EIA) Notification, 2006, meetings of the various sector-specific Expert Appraisal Committees (EACs) were convened during the year for appraisal of Category 'A' projects pertaining to sectors such as Industry, Thermal Power, River Valley and Hydroelectric Projects, Coal Mining, Non-Coal Mining, Infrastructure and Coastal Regulation Zone (CRZ), as well as Nuclear, Defence and allied projects.

During the period from 1 January 2025 to 31 December 2025, Environmental Clearance (EC) was accorded to a total of 502 projects. The sector-wise distribution of Environmental Clearances granted by the Ministry during the year 2025 (up to 31 December 2025) is depicted in Figure 1. The average time taken for grant of Environmental Clearance across all sectors at the Central level was 64 days, as against the stipulated timeline of 105 days.

4. Implementation of Single-Window Integrated Environmental Management System.

With a view to strengthening e-Governance and enhancing ease of doing business, the PARIVESH portal was launched in 2018 as a single-window platform for Environment, Forest, Wildlife and CRZ clearances and was extended to all States and Union Territories in 2019. The portal is currently operational across 36 States / UTs, 19 Regional Offices and the Ministry.

The PARIVESH system has been progressively

**Fig. 1 - No. of EC proposals Granted (Central Level)**

upgraded in line with statutory requirements and has ensured uninterrupted service delivery. To further improve efficiency and user experience, PARIVESH 2.0 was developed by leveraging GIS and advanced data analytics for end-to-end online appraisal, grant of clearances and compliance monitoring.

PARIVESH 2.0 includes modules such as Know Your Approval (KYA), Know Your Customer (KYC) and a GIS-enabled Decision Support System (DSS), and enables complete online processing of Category 'A' and Category 'B' Environmental Clearance proposals at the Central and SEIAA levels, respectively. The platform has also been integrated with national digital systems including GatiShakti, the Ministry of Coal systems and the PMG Portal.

In pursuance of G.S.R. 702(E) and 703(E) dated 12.11.2024, the Ministry issued an Office Memorandum dated 14.01.2025 prescribing the procedure for processing projects requiring prior Environmental Clearance but exempted from obtaining Consent to Establish. The entire

workflow, including seeking comments from SPCBs / PCCs, has been automated through the PARIVESH portal.

The paperless clearance management system under PARIVESH 2.0 has strengthened e-Governance, improved ease of doing business and contributed to reduction of carbon footprint. Key outcomes during 2025 are as follows:

- a. Prior Planning: About 5,500 users utilised the Know Your Approval (KYA) module for early-stage assessment of environmental sensitivity of proposed projects.
  - b. Informed Decision-Making: Over 1,300 ToR and EC proposals were appraised and granted using the GIS-enabled Decision Support System (DSS).
  - c. Expeditious Processing: Systemic reforms and automation reduced the average time for grant of EC at the Central level to 64 days, against the stipulated timeline of 105 days.
5. Compliance and Monitoring Division (CMD) Post Project Monitoring of Environment Clearance Condition: Clearances under EIA Notifi-

ation, 2006 are granted by MoEFCC for Category 'A' projects and by State Level Impact Assessment Authorities (SEIAAs) / UTIAAs for Category 'B' projects. Similarly, clearances under CRZ Notification, 2011 are also granted by MoEFCC or the respective SEIAAs as the case may be after the project has been recommended by the concerned Coastal Zone Management Authority. While granting environmental clearances under both these Notifications, various conditions and environmental safeguards are stipulated which are required to be implemented by the project proponent during various stages of project cycle.

The objectives of Post-Project Clearance Monitoring are:

- to ensure that actions have been taken to incorporate the environmental safeguards during the project cycle in accordance with the conditions stipulated in the Environmental Clearance letter; and
- to take appropriate corrective measures to check adverse impact on environment during operation of the respective projects.

Monitoring of projects with respect to conditions stipulated in the environmental clearance issued under EIA Notification, 2006 and Coastal Regulation Zone (CRZ), 2011 is carried out through the Eleven (11) Regional Offices (ROs) and Nine (9) Sub Regional Office as also through the Consent mechanism of the State Pollution Control Boards and UT Pollution Control Committees.

As a step towards strengthening the Environmental Compliance and Monitoring for effective implementation of provisions of Environment (Protection) Act, 1986; the Ministry has created a dedicated and separate "Compliance and Monitoring Division" (CMD) vide Office Order dated 13.07.2023.

The major responsibilities of CMD are:

- Monitoring of EC granted under the EIA Notification, 2006,
- Functional auditing of SEIAA/CZMA and post EC monitoring in relation to Court cases.
- Parliament Matter, VIP reference, PG, RTI etc.

C&M Division examines the monitoring reports submitted by Regional Offices. In cases of major non-compliance, further follow up action is taken for effecting compliance including issue of show cause notice followed by directions under Environment (Protection) Act, 1986 on case to case basis.

Environment Audit Rules, 2025

In line with the Government's commitment to Ease of Doing Business (EoDB), principles of trust-based governance and to expand the resource pool for compliance monitoring by involving professionals, the Ministry of Environment, Forest and Climate Change (MoEFCC) notified the Environment Audit Rules, 2025 on 29th August 2025 with the goal of attaining minimum government and maximum governance for enforcing compliance responsibilities on one hand and ensuring EoDB on the other. The key objectives of the rules are to institutionalize environmental audits to bridge manpower and infrastructural gaps in compliance monitoring, promote transparency and encourage self-compliance.

Accreditation of the EIA consultants with Quality Council of India (QCI / National Accreditation Board of Education and Training (NABET) :

The environmental appraisal of development projects is undertaken as per the provisions of EIA Notification 2006 based on EIA/EMP re-

ports prepared by the accredited consultants with the assistance of project proponents. Good quality EIA reports are a pre-requisite for appropriate decision making. As of now, only consultants accredited with QCI/ NABET are allowed to prepare EIA/EMP reports and present the cases before EACs/SEAC. As per the NABET website as on 08.01.2026, there are 241 accredited EIA Consultant Organizations.

6. Policy reforms: As part of systemic reforms, the IA Division has taken various policy reforms by integrating environmental safeguards in the process:

- Exemption of extraction, sourcing, or borrowing of ordinary earth for linear projects from the requirement of prior EC subject to environmental safeguards
- Rationalized the requirement of green belt/green cover for Industrial Estates/Parks and individual industries based on pollution potential
- Environment Audit Rules 2025 for the creating of a cadre of Certified ThirdParty Environmental Auditors who will undertake on-site verification and audit of projects to

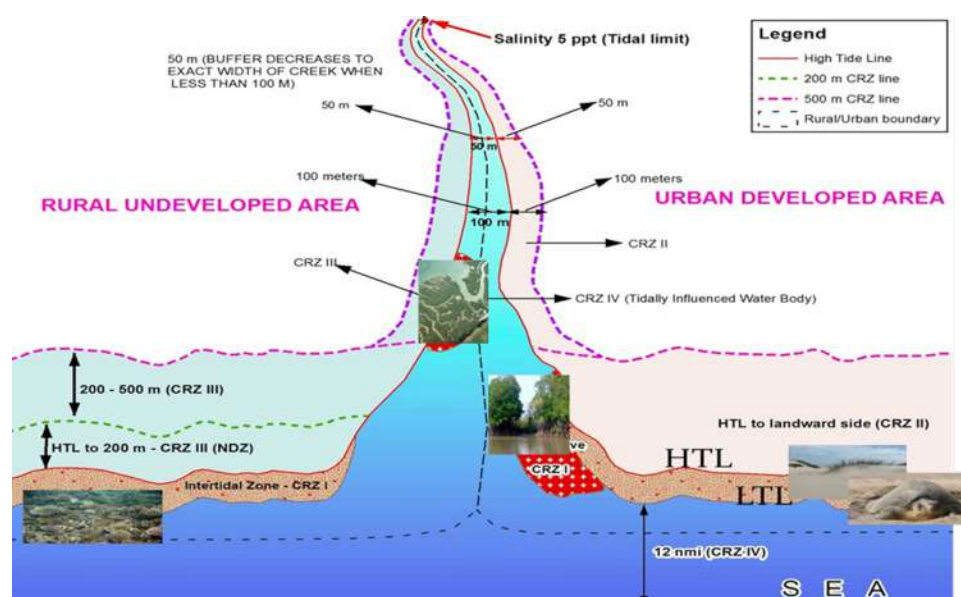
certify and assess compliance with key environmental laws and regulations

- All expansion/modernization activities of Airports which have a valid ECs, shall be appraised as category B2 project (i.e. without a need for preparing EIA report and Public Hearing), provided there is no inclusion of any additional land area.
- Clarified the provisions in EIA Notification wherein, once an EC is granted to an Industrial Estate/Park then individual units may not be required to obtain separate ECs.

### 3.2. Coastal Regulation Zone (CRZ):

a. Introduction

With the prime objective of ensuring livelihood security to fishing and other local communities living in coastal areas, and to conserve/protect coastal stretches while also promoting development based on scientific principles, the CRZ Notification was issued vide S.O. 114(E), dated 19/02/1991. This notification was superceded by the CRZ Notification, 2011 and issued vide S.O. 19(E), dated 06/01/2011. The said notification covers categorization of CRZ areas, permissible and prohibited activities, regulation of



CRZ Classification as per 2011 Notification

permissible activities in CRZ areas, procedure for clearance, preparation of Coastal Zone Management Plans, mapping and areas requiring special consideration etc.

The notification was amended from time to time based on representations received from the coastal State Governments, Union Territory administrations and other stakeholders, and a need was felt overtime to undertake a comprehensive revision of the notification.

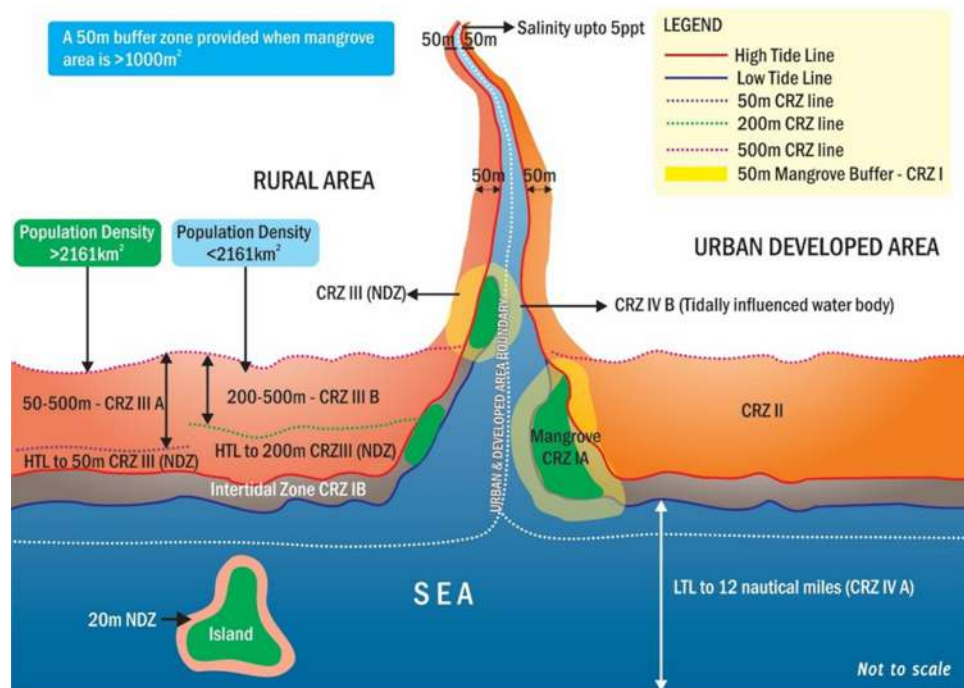
The Ministry of Environment, Forest and Climate Change had accordingly constituted a Committee in June 2014 under the Chairmanship of Dr. Shailesh Nayak (Secretary, Ministry of Earth Sciences) to examine the various issues and concerns of Coastal States/UTs and other stakeholders for recommending appropriate changes in the CRZ Notification, 2011. The Shailesh Nayak Committee held wide ranging consultations with State Governments and other stakeholders and submitted its recommendations in 2015. The recommendations were further examined in consultation with Members of Parliament of Coastal States and Union Territories besides other concerned Ministries of Government of India and a draft notification i.e. CRZ Notification, 2018 (in proposed supersession of CRZ Notification, 2011) was issued in April, 2018 for inviting comments from the public at large. A number of suggestions and comments were received by the Central Government and based on overall imperative of sustainable development of coastal areas and need for conserving the coastal environment, the Union Cabinet approved the new Coastal Regulation Zone Notification on 31/12/2018 and the same was finally issued vide G.S.R 37(E), dated 18/01/2019. This new CRZ Notification is expected to go a long way in conservation of the coastal areas on scientific principles, meeting

the aspirations of coastal communities besides ensuring welfare of poor and vulnerable populations. Overall, this new CRZ Notification will result in greater economic growth while conserving the coastal ecosystems, thereby creating greater livelihood opportunities and better quality of life of coastal communities.

The new CRZ Notification, 2019 issued vide G.S.R 37(E), dated 18/01/2019, will however become effective only after the Coastal Zone Management Plans (CZMPs) of the respective coastal states are aligned and updated based on the provisions of the new notification. To this effect the Ministry of Environment, Forest and Climate Change has issued 'Guidelines for updation of Coastal Zone Management Plan prepared as per CRZ Notification, 2011 to align it with CRZ Notification, 2019' to all coastal states for immediate action. The Coastal Zone Management Plans (CZMPs), prepared in accordance with the provisions of the CRZ Notification, 2019, have been approved for the States of Odisha, Karnataka, Maharashtra and Kerala, as well as for eight coastal districts of Gujarat (Vadodara, Anand, Ahmedabad, Porbandar, Junagadh, Dev Bhumi Dwarka Jamnagar and Gir Somnath).

#### Island Regulations:

The islands located along the mainland (off-shore and inshore within tidally influenced water bodies) are covered under the Coastal Zone Regulation (CRZ) regulations, whereas Andaman and Nicobar and Lakshadweep group of islands are covered under the Island Protection Zone (IPZ) Notification, 2011, issued on 6th January 2011 under the Environment (Protection) Act, 1986. Akin to CRZ Notification, the Island Coastal Regulation Zone (ICRZ) Notification, 2019 was issued in supersession of IPZ Notification, 2011 vide S.O.1242 (E), dated



CRZ Classification as per 2019 Notification (to be effective once revised/updated CZMPs are approved)

08/03/2019. This new notification will however become effective only after the ICRZP/IIMPs of the islands are revised and updated as per the provisions of the new notification. In accordance with the ICRZ Notification, 2019, the Integrated Coastal Regulation Zone Plans (ICRZPs) for nine islands (Great Nicobar Island, Little Andaman, North Andaman, Middle Andaman, Baratang, Swaraj Dweep, Rutland, Car Nicobar, and Kamorta) and the Integrated Island Management Plans (IIMPs) for five Islands (Smith Island, Long Island, Flat Bay, Shaheed Dweep, and Netaji Subhas Chandra Bose Dweep) of the Andaman & Nicobar Islands, as well as for twenty-three Islands of Lakshadweep (Bangaram, Tinnakkara and Barali II & III, Bitra, Chetlat, Kiltan, Kadamat, Suheli, Minicoy, Viringili, Valiyakara, Agatti & Kalpitti, Amini, Androth, Kalpeni, Cheriya, Pitti, Kodithala, Tilakam East & West, and Kavaratti), have also been approved.

b. Progress / Achievements from 01/01/2025 to

31/12/2025

A. Policy Decision / Constitution of Authorities:

- The Andaman and Nicobar Coastal Zone Management Authority has been reconstituted through a notification issued under S.O. 2512(E), dated 09/06/2025.
- The Maharashtra Coastal Zone Management Authority has been reconstituted through a notification issued under S.O. 3026(E), dated 07/07/2025.
- The National Coastal Zone Management Authority has been reconstituted through a notification issued under S.O. 3619(E), dated 06/08/2025.
- The Odisha Coastal Zone Management Authority has been reconstituted through a notification issued under S.O. 2001(E) 02/05/2025.
- The Puducherry Coastal Zone Management Authority has been reconstituted through a notification issued under S.O. 2960 (E) dated 02/07/2025.
- The West Bengal Coastal Zone Manage-

ment Authority has been reconstituted through a notification issued under S.O. 5164(E), dated 12/11/2025.

- The Karnataka Coastal Zone Management Authority has been reconstituted through a notification issued under G.S.R. 942(E), dated 31/12/2025.
- The validity of clearances granted under the IPZ Notification, 2011 has been extended to a period of 10 years, including relaxation for the COVID-19 period (01/04/2020–31/03/2021) and a further one-year extension, vide Notification issued under S.O. 3013(E) dated 04/07/2025.

#### B. Implementation of CRZ Notification 2011/2019:

- Meeting of the 48th National Coastal Zone Management Authority (NCZMA) was conducted on 26/09/2025, under the Chairmanship of the Secretary, Ministry of Environment, Forest, and Climate Change (MoEFCC), to discuss key issues pertaining to coastal zone management.
- Approved Island Coastal Regulation Zone Management Plan (ICRZP) for Seven Islands (North Andaman, Middle Andaman, Baratang, Swaraj Dweep, Rutland, Car Nicobar, and Kamorta) and Integrated Island Management Plan (IIMP) of Five Islands (Smith Island, Long Island, Flat Bay, Shaheed Dweep, and Netaji Subhas Chandra Bose Dweep) of Andaman and Nicobar (A&N) Islands under Island Coastal Regulation Zone Notification 2019.
- Approved Integrated Island Management Plan (IIMP) of UT of 23 Islands of Lakshadweep as per ICRZ Notification, 2019 (Bangaram, Tinnakkara and Barali II & III, Bitra, Chetlat, Kiltan, Kadamat, Suheli, Minicoy, Viringili, Valiyakara, Agatti & Kalpitti, Amini, Androth, Kalpeni, Cheriya, Pitti, Kodithala, Tilakam East & West, and Kavaratti)

- Approved Coastal Zone Management Plan (CZMP) for Eight (8) districts namely Vadodara, Anand, Ahmedabad, Porbandar, Junagadh, Dev Bhumi Dwarka Jamnagar and Gir Somnath of Gujarat under Coastal Regulation Zone Notification 2019.

#### C. EAC (CRZ) / CRZ Clearances

- A total of 111 CRZ clearances have been granted by the Ministry from 01/01/2025 upto 31/12/2025. These approvals pertain to various developmental and project activities and the checks and balances and conditions for conservation prescribed therein for permissible activities under the CRZ Regulations. Systemic reforms and automation have reduced the average time for grant of CRZ clearance at the Central level to 40 days, as against the stipulated timeline of 60 days.

# Chapter 4

## CONSERVATION BIO-DIVERSITY



## 4.1 Conservation and Survey- III (Biodiversity) Division

### a. Introduction, objectives and functions

The areas of work dealt within CS III (Biodiversity) division can be broadly categorized under following categories:

- **International Commitments:**

- I. Convention on Biological Diversity (CBD).
- II. Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization.

- **National Legislation:**

Biological Diversity Act, 2002 (amendment in 2023)

- CBD is one of the key agreements adopted during the Earth Summit held in Rio de Janeiro in 1992. The three objectives of the CBD are: conservation of biological diversity, sustainable use of its components, and fair and equitable sharing of benefits arising out of the use of genetic resources. Pursuant to ratification of the CBD by India on 18 February 1994, several steps were initiated to meet the commitments under the Convention, and to realize the opportunities offered by the Convention. India enacted the Biological Diversity Act in 2002 to give effect to the provision of this Convention. India has also prepared a National Biodiversity Action Plan (NBAP) in 2008, and an Addendum to NBAP was prepared in 2014 with 12 National Biodiversity Targets, developed in line with the 20 global Aichi biodiversity targets. India also submit a National Report to CBD providing an update on progress in National Biodiversity Targets. Recently India submitted its 23 National Targets in line with the Kunming Montreal Global Biodiversity Framework (KMGBF) on 10th September 2024 to the CBD portal. Further India submitted its up-

dated National Biodiversity Strategy and Action Plan on 31st October 2024 to the CBD portal.

- The Nagoya Protocol on Access to Genetic Resources (A BS) and the Fair and Equitable Sharing of Benefits Arising from their Utilization, adopted under the aegis of CBD in 2010. India signed the Protocol on 11 May 2011, and ratified it on 9 October 2012. The Nagoya Protocol on ABS entered into force on 12 October 2014. The Nagoya Protocol is being implemented at national level inter alia through the B D Act.
- Intergovernmental Platform on Biodiversity and Ecosystem Services (IPBES) was established by the Governments of various countries in April 2012 as the biodiversity counterpart of Intergovernmental Panel on Climate Change, for strengthening the science-policy interface on biodiversity so as to provide policy makers with reliable, independent and credible information on biodiversity, thus promoting human well-being and sustainable development through sustainable use of biodiversity.
- In pursuance to CBD, India enacted the Biological Diversity Act, 2002 (amendment 2023), and notified the Biological Diversity Rules in 2004, which were superseded by the Biological Diversity Rules 2024.
- The Act provides for conservation of biological diversity, sustainable use of its components and fair and equitable sharing of the benefits arising out of the use of biological resources, knowledge and for matters connected therewith or incidental thereto. It primarily aims at giving effect to the provisions of the CBD suiting to our national needs and requirements. The provisions of the Nagoya Protocol on Access and Benefit Sharing to which India is a Party, are also being implemented through the Biological Diversity Act.
- The Biological Diversity Act, 2002 is implemented through a three-tier institutional mech-

anism: NBA, State Biodiversity Boards (SBBs) and Biodiversity Management Committees (BMCs). NBA is a statutory body that performs facilitative, regulatory and advisory functions for the Government on biodiversity related issues.

## b. Important activities undertaken

- The Ministry celebrated the “International Day on Biological Diversity 2025” on 22 May 2025. The theme of the event is “Harmony with Nature and Sustainable Development”. The event was well attended by Senior officials from the Central / State Government, college student, NGOs and Biodiversity Management Committees members and made commitments towards biodiversity conservation.
- During the event, the booklet on National Biodiversity Strategy and Action Plan 2024-2030 was released along with following booklets and brochures:
  - i. Summary for Stakeholders: India’s Updated National Biodiversity Strategy and Action Plan (NBSAP 2024-2030).
  - ii. Brochure on the preparation of India’s Seventh National Report (NR 7) to the Convention on Biological Diversity (CBD)
  - iii. Curriculum and Prospectus: MoEFCC-IICA-NBA-UNDP Certificate Programme in Business & Biodiversity Conservation.
  - iv. Compendium of Biodiversity Heritage Sites in India.
  - v. Brochure on The Biological Diversity (Access to Biological Resources and Knowledge Associated thereto and Fair and Equitable Sharing of Benefits Regulations, 2025)

## c. Progress/Innovations

Internationally Recognized Certificate of Compliance (IRCC) issued under Nagoya Protocol: Nagoya Protocol on ABS requires Parties to issue a permit or its equivalent at the time of access as evidence that access to genetic resources was based

on prior informed consent and that mutually agreed terms were established. The Protocol further requires that Parties make information on the permit or its equivalent available to the ABS Clearing House for it to constitute an Internationally Recognized Certificate of Compliance (IRCC). Since October 2015, 3556 (6 0.24%) approval granted to users of biological resources in the ABS CH website for generating IRCC out of 5903.

## d. Important cumulative achievements

- i. 2.76 lakhs BMCs have been established in 28 States and 8 Union Territories across India.
- ii. 2.72 lakhs PBRs have been documented by the BMCs with the support of SBBs and NBA.
- iii. 54 Biodiversity Heritage sites have been declared 19 States
- iv. So far, NBA distributed Access Benefit Sharing (ABS) to the tune of Rs. 70/- crore to all SBBs / UTBCs, research institutions, Forest departments etc.
- v. So far, India has generated 3,556 Internationally Recognized Certificate of Compliance (IRCC). India accounts for 57.35% of the total 6,200 IRCCs published by other Parties to the convention on biological diversity portal.

## e. Promulgation of new Acts / Rules

- Vide Gazette notification no. 332 dated 29th April, 2025, and in supersession of the Access and Benefit Sharing Regulation, 2014, notified the Biological Diversity (Access to Biological Resources and Knowledge Associated thereto and Fair and Equitable Sharing of Benefits) Regulations, 2025.
- Amendment of Rule 19 and associated Forms 11 and 12 of the Biological Diversity Rules, 2024, by The Biological Diversity (Amendment) Rules, 2025, vide Gazette Notification G.S.R. 295(E) dated 6th May 2025 and it came into force on 1st November 2025

## f. Important Conferences

### Workshops organized in India:

- Consultation for reporting on seventh National Report on 19 September 2025 in New Delhi.
- National cum State-level Inception Workshop on the Gol- UNDP-GEF7 BD Project entitled "Strengthening Institutional Capacities for Securing Biodiversity Conservation Commitments", from 14-15 November, 2025 in Shillong, Meghalaya.
- National-Level Inception Workshop for the Preparation of India's Seventh National Report (NR-7) to the Convention on Biological Diversity (CBD) on 19.09.2025
- Validation workshop for the GBFF project on "Conservation of Biodiversity, its Sustainable Use, Fair and Equitable Sharing of Benefits in India" (CONSERVE) on 05-06 July 2025, Faridabad.
- BIOFIN Annual Planning and Review Meeting on 24 January 2025, Chennai.
- Strengthening Institutional Capacities for Securing Biodiversity Conservation Commitments; Project orientation workshop cum planning meeting on 23 January 2025, Chennai.
- Sub-regional dialogue on biodiversity monitoring and reporting with a focus on ecosystem restoration (Target 2 of the Kunming-Montreal Global Biodiversity Framework), 2–5 September 2025, Bangkok, Thailand.
- Twenty-seventh meeting of the Subsidiary Body on Scientific, Technical and Technological Advice, 20–24 October 2025, Panama City, Panama.
- First meeting of the Subsidiary Body on Article 8(j) and Other Provisions of the Convention on Biological Diversity Related to Indigenous Peoples and Local Communities, 27–30 October 2025, Panama City, Panama.

#### g. Major publications

Compendium of Biodiversity Heritage Sites in India released during the International Day for Biological Diversity, May 22, 2025

#### h. Autonomous bodies

#### International conferences:

- Second resumed session of the sixteenth meeting of the Conference of the Parties to the Convention on Biological Diversity; the fifth meeting of the Conference of the Parties to the Convention on Biological Diversity serving as the meeting of the Parties to the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from Their Utilization; the eleventh meeting of the Conference of the Parties to the Convention on Biological Diversity serving as the meeting of the Parties to the Cartagena Protocol on Biosafety from 25–27 February 2025, Rome, Italy.
- Regional workshop on knowledge management for biodiversity for countries in Asia 11–13 March 2025, Bangkok, Thailand.
- The National Biodiversity Authority is a body corporate established in accordance with the provisions of Section 8 of the Biological Diversity Act, 2002, at Chennai w.e.f. 1st October 2003. It is an autonomous, statutory and regulatory organization which is intended to implement the provisions of Biological Diversity Act, 2002. The Biological Diversity Act 2002 came into force in 2003. The Act extends to the whole of India. The objectives of the Act are conservation, sustainable utilization and fair and equitable sharing of benefits arising out of the use of biological resources and associated knowledge. The Act is being implemented through a three-tiered institutional structures (NBA at National level, State Biodiversity Boards at State level and Biodiversity Management Committees at local level)
- The main objectives of NBA are:
  - To regulate access to biological resources of the country to conserve and sustainable use of biological diversity;

- ii. To respect and protect the knowledge of local communities related to biodiversity;
- iii. To secure sharing of benefits with the local people as conservers of biological resources and holders of knowledge and information relating to the use of biological resources;
- iv. Conservation and development of area of importance from the view point of biological diversity by declaring them as biological diversity heritage sites;
- v. Protection and rehabilitation of threatened species; involvement of institutions of state government in the broad scheme of implementation of the Biological Diversity Act through constitution of committees.

S. No	Name of Organisation	Purpose	Total Amount Released	Status of Third party evaluation
1	National Biodiversity Authority	As per the provisions in the Biological Diversity Act, 2002	Rs. 9.50 Crore Released (as on 31/12/2025)	Conducted By CAG

## 4.2 Conservation and Survey- III (Biosafety) Division

### a. Introduction, objectives and functions

- The Division's scope includes activities related to the Cartagena Protocol on Biosafety (CPB) under the Convention on Biological Diversity (CBD), the Nagoya-Kuala Lumpur Supplementary Protocol on Liability and Redress (NKLSPLR), and the work of the Genetic Engineering Appraisal Committee (GEAC).
- The CPB to the CBD is an international agreement to ensure the safe handling, transport, and use of living modified organisms (LMOs) arising from modern biotechnology, particularly those that may pose risks to biodiversity and human health. It was adopted on January 29, 2000, and came into force on September 11, 2003.
- The NKLSPLR supports biodiversity conservation and sustainable use by establishing international rules and procedures for liability and redress concerning LMOs. This Supplementary Protocol, adopted on October 15, 2010, at the CoP-MoP-5 in Nagoya, Japan, entered into force on March 5, 2018, as an extension of the CPB.
- In accordance with the Rules for the Manufacture, Use, Import, Export and Storage of Hazardous Micro Organisms / Genetically Engineered Organisms or Cells notified in 1989 (Rules, 1989) under the Environmental (Protection) Act, 1986; the Genetic Engineering Appraisal Committee (GEAC) functions under the Ministry of Environment, Forest and Climate Change (MoEF&CC) for appraisal of activities involving large scale use of hazardous microorganisms and recombinants in research and industrial production from the environmental angle. The Committee is responsible for approval of proposals relating to release of genetically engineered organisms and products into the environment including experimental field trials.

### b. Important activities undertaken

From 01.01.2025 onwards, five meetings of GEAC were held on 17.04.2025, 09.06.2025,

14.07.2025, 10.10.2025 and 18.12.2025 in which the committee gave the following approvals:

- i. Confined Field Trials of GM crops  
EST – 3  
BRL-I – 3  
BRL-II – 2
- ii. Environmental approval to commence commercial production of Ethanol using GEO – 09
- iii. Import of GEO for commercial production of ethanol -07.

#### c. Continuing committees / commissions

Genetic Engineering Appraisal Committee as mentioned above.

#### d. Important Conferences

- Article 25 of the Convention on Biological Diversity (CBD) establishes an open-ended inter-governmental scientific advisory body known as the Subsidiary Body on Scientific, Technical and Technological Advice (SBSTTA) to provide the Conference of the Parties (COP) and, as appropriate, its other subsidiary bodies, with timely advice relating to the implementation of the Convention.
- In the 27th meeting of the SBSTAA, Agenda Item No. 7. Risk assessment and risk management, pertained to Biosafety Division.
- The division provided support to the Indian delegation for presenting and negotiating India's position in the Subsidiary Body on Scientific, Technical and Technological Advice (SBSTAA), which was held from 20-24 October 2025 at Panama City, Panama.

### 4.3 Conservation and Survey-II

CS-II Division handles the administration of Botanical Survey of India (BSI) and Zoological Survey of India (ZSI), subordinate organisations under the Ministry of Environment, Forest and Climate Change. BSI and ZSI are premier research institutes actively involved in the survey, exploration and research of the immensely rich floral and fau-

nal diversity of our country.

#### 4.3.1 Zoological Survey of India (ZSI)

##### a. Brief introduction, objectives and functions

The Zoological Survey of India (ZSI) is a subordinate organization under the Ministry of Environment, Forest and Climate Change dedicated for surveys, exploration and taxonomical studies of faunal communities since its inception in the year 1916. ZSI Headquarters is located in Kolkata and has 16 Regional Centers spread across the country. The primary and secondary objectives are as follows:

##### Primary Objectives

1. Exploration, Survey, Inventorying and Monitoring of faunal diversity in various States, Ecosystems and Protected areas of India
2. Maintenance & Development of National Zoological Collections
3. Taxonomic and systematic studies on fauna of India
4. Periodic review of the Status of Threatened and Endemic species
5. Publication of Fauna of India, Fauna of States and Conservation areas
6. Ecological and biological studies on species and communities
7. Creation and maintenance of “Fauna of India database”
8. Training and capacity building in animal taxonomy and conservation
9. Wildlife forensics and Identification and Advisory services to academia, organizations/bodies
10. Development and maintenance of Museum at Headquarters and Regional centres
11. Genomic studies on fauna of India

##### Secondary objectives

1. Environmental Impact and Biodiversity assessment for framing management action plans
2. Creation and maintenance of EIACP website and CITES Cell

3. Research Fellowship, Associateship and Emeritus Scientist Programmes
4. Collaborative research programmes on biodiversity with national and international organizations
5. Studies of Indian Fauna using GIS and other appropriate tools
6. Digitization of National Zoological Collection
7. DNA Barcoding of Indian Fauna
8. Monitoring of the impact of climate change on faunal diversity

#### a. **Functions / Strength of ZSI:**

- ZSI is one of the largest faunal repositories of the world with 6.7 million faunal specimens.
- Robust taxonomic expertise on different groups of fauna from Protozoa to Mammalia.
- Holding up-to-date information on faunal Diversity of India.
- Updating the data on new discoveries from different ecosystems of the country at the rate 500 - 600 species per annum.
- Exhibiting different faunal specimens of various ecosystems of the country in museums at Headquarters and regional centres..
- Only organization in the country providing training on taxonomy of all groups of fauna.
- Maintain DNA, Forensic studies & GIS laboratories
- Holding Asia's largest library dealing books and literature pertaining to Zoology.
- Digital Archives of Publication.
- Digitization of Types
- Outreach activities
- Inter-ministerial services
- International & National Collaborations
- Contribution of ZSI in the activities pertaining to Conservation of Biodiversity including CBD, ABS, W(P)A, BDA, CITES, IUCN, DGQI etc.



#### b. **Important Activities undertaken**

- A total of 168 surveys covering 60,919.261 sq. km were completed across various regions including status surveys of endangered species, taxonomic studies, and miscellaneous explorations. A total of 1,74,957 specimens were collected, and 6974 species were identified, comprising 1,564 Chordata and 5,410 Non-chordata.
- A total of 6,938 species, spanning Protista to Mammalia, were added to the National Zoological Collection during the reporting period.
- A total of 117 new species were discovered across diverse faunal groups.
- Discovery of the Indo-Burmese Pangolin – *Manis indoburmanica* (Arunachal Pradesh)
- 128 new records were added to the Indian fauna, ranging from unicellular protists to higher vertebrates.
- A total of 1,352 DNA barcodes representing 567 species were submitted to BOLD and GenBank across Bacteria, Collembola, Insects (Lepidoptera, Orthoptera, Coleoptera, Odonata, Hymenoptera, Hemiptera, Diptera), Malacostraca, Mollusca, Crustacea, Fishes, Amphibia, Reptiles, and Mammalia.
- ZSI produced 1,017 publications, including 45 books, 242 SCI-indexed papers, 208 NAAS-rated papers, 77 peer-reviewed national/international papers, 263 book chapters, 118 Fauna of India checklists, 58 popular articles, and six

issues of the E-Newsletter.

- A total of 218 outreach activities were conducted in online and offline formats, benefiting over 11,690 students and researchers across India.
- As an authorized wildlife forensic authority under the MoEFCC, ZSI analysed 1,545 confiscated specimens belonging to 105 species, received from 74 departments nationwide.
- Three patents granted for automated surveillance systems targeting mosquitoes, coleopterans, and protozoans, reflecting innovation in applied faunal monitoring technologies.
- ZSI provided taxonomic identification services to 196 institutes/colleges, identifying 5,717 specimens representing 1,005 species, covering insects, fishes, molluscs, arachnids, birds, crustaceans, and vertebrates.
- International collaborations expanded, including partnerships with Natural History Museums (London, Stockholm, Geneva), universities in Italy, Romania, and South Korea, and contributions to the Manual of World Odonata.
- ZSI HQ and Regional Centres actively participated in Swachhata Campaign 5.0 and conducted massive cleanliness drives across campuses and office premises.
- ZSI observed Mission LiFE through awareness and conservation activities
- ZSI supported national and international policy processes through the training of scientists for IUCN National Red Listing.
- Assessments of 61 species were completed, including several endemic and scheduled taxa.

### c. Progress / Innovations

- 117 new species discovered and 128 new records added to the Indian fauna across major taxonomic groups, including the newly described Indo-Burmese pangolin (*Manis indoburmanica*), a genetically distinct species discovered from Arunachal Pradesh.
- 1,017 scientific publications produced, includ-

ing books, SCI-indexed papers, NAAS-rated papers, book chapters, checklists, and popular articles.

- Digital Sequence Information strengthened with 1,352 DNA barcodes of 567 species submitted to BOLD and GenBank, enhancing molecular reference resources.
- Major conservation outreach under Mission LiFE and Swachhata Campaign 5.0, including plantation of 600 saplings, nationwide shramdaan activities, 20 thematic events across 16 states, and 218 outreach programmes benefiting over 11,690 people.
- Policy support strengthened with IUCN Red List training of 10 scientists, completion of 61 species assessments, and expert inputs on 47 national and international policy agendas.

### d. Important Cumulative Achievements

- So far, about 1,04,561 species of animals have been documented by ZSI. During the reference period, a total of 6,974 species have been identified by the scientists of ZSI Headquarters and Regional Centres.
- A total of 7,237 scientific publications have been completed during the last several years.
- ZSI continues to play a major role in enriching DNA barcode resources and resolving taxonomic queries. A cumulative total of 13,742 barcodes has been generated so far.
- Since its inception, ZSI scientists have described 5,820 new species.

### e. Continuing Committees / Commissions

- Research Advisory and Monitoring Committee (RAMC): Continues as the apex body, reviewing ZSI's progress twice a year.
- Scientific Consultative Committee: Meets monthly to review scientific activities and progress.
- Half-Yearly Scientific Progress Committee: Evaluates mid-year achievements across divi-

sions.

- Annual Scientific Progress Committee: Reviews and validates institute-wide yearly scientific outputs.

#### **f. Important Conferences Organized & International Participation**

- The ‘National Conference on Invasive Alien Fauna’ was conducted.
- Training workshops on Faunal Collection, Preservation and Identification, including freshwater fishes, insects, and zoological specimens.
- IUCN Red List Assessor Training Workshop for ZSI scientists.
- Capacity-building programmes on socio-economically important insects.
- Training sessions on protected animals of India, mosquito taxonomy and surveillance, and DNA barcoding.

#### **International Participation**

- ZSI participated in the IUCN World Conservation Congress 2025, held from 9–15 October 2025 in Abu Dhabi, United Arab Emirates.
- Scientists participated in IUCN Red List meetings, policy consultations, and collaborative research discussions with global partners including Natural History Museum London, NHMS Stockholm, and Natural History Museum Geneva.

#### **g. Multilateral Environmental Agreements (MEAs), Agreements with Countries & International Organizations**

- United Kingdom – NHM London: Continued collaboration on molluscs, insects, reptiles, Himalayan pollinators, and Chiroptera; scientists visited for holotype studies and taxonomic research.
- Sweden – NHMS Stockholm: Collaboration on Hemiptera holotypes and new species records.
- Switzerland – NHM Geneva: Ongoing collaboration on bat taxonomy (Chiroptera).

- IUCN Red List Unit: Continued cooperation for species assessments and policy support.

#### **MoUs with National Universities and Institutes**

ZSI continued active MoUs with:

- ICAR–Central Institute of Freshwater Aquaculture, Bhubaneswar
- Berhampur University, Odisha
- ICAR–NBAIR, Bengaluru
- Vidyasagar University, Midnapore
- Birla Institute of Technology & Science (BITS), Pilani
- Kongunadu Arts & Science College, Tamil Nadu
- Atal Bihari Vajpayee Vishwavidyalaya, Chhattisgarh
- Vivekanandha Educational Institutions, Tamil Nadu

#### **h. Major Publications**

- 121 Checklists of Fauna of India published during the period as part of the national baseline biodiversity documentation effort.
- Animal Discoveries 2025- New Species & New Records

Faunal Diversity of Eastern Ghats, India

- Fauna of Sonanadi Wildlife Sanctuary, Uttarakhand
- Faunal Diversity of Chilika Lake
- Taxonomic Studies on the Amphibians of the Western Ghats
- Fishes of the Siang River, Brahmaputra Drainage, Arunachal Pradesh
- Distribution and Incidence of Freshwater Turtles in India
- A Catalogue on Indian Jumping Spiders (Araneae: Salticidae)
- Field Guide to Freshwater Turtles and Tortoises of North Western India
- Fauna of Rajasthan – Part 1: Invertebrates



Greater One-horned Rhinoceros – *Rhinoceros unicornis*  
Linnaeus



White-spotted Eagle Ray – *Aetobatus ocellatus*



Mangrove habitat of the Sundarban Biosphere Reserve

### 4.3.2 Botanical Survey of India (BSI)

#### a. Introduction, objectives and function

##### Introduction:

The Botanical Survey of India (BSI) is the apex taxonomic research organization functioning under the Ministry of Environment, Forest and Climate Change, Govt. of India. Established on February 13, 1890, its primary role is the exploration, identification, and documentation of India's extensive plant resources. The BSI serves as the custodian of authentic plant collections in herbaria, fostering advanced taxonomic research and playing a vital role in national strategies for plant conservation and sustainable utilization. It is also actively involved in the ex-situ conservation of endemic, threatened, and economically significant plant species. Headquartered in Kolkata, the BSI maintains a nationwide presence through 21 regional centers, units, and botanic gardens.

BSI also maintains many national facilities such as Herbarium holding about 3.6 million herbarium specimens; Research Laboratories with state-of-the-art facilities at Kolkata / Howrah, Shillong, Pune, Dehradun, Coimbatore and Allahabad for taxonomic studies; Digital archives having collections of Textile designs (1050 samples), Natural dyes (3000), Botanical illustrations (5800), Archival Documents (60,000), Manuscripts Correspondences and Watt's Ledger etc.; Industrial and Ethno-botanical Collections with more than 20,000 exhibits; libraries with more than one lakh accessioned books and subscriptions of about 75 national and international plant taxonomy journals of national and international repute.

#### Objectives and functions

##### VISION:

The plant, fungal and algal wealth of India is fully understood and documented; and the knowledge is shared to support its sustainable utilization for human welfare.

## MISSION:

Conservation of wild plant resources is ensured including their sustainable utilization through basic and applied research for socio-economic-cultural development and ecological security of the country.

## CURRENT MANDATE:

- Exploration, inventorization and documentation of phytodiversity in India.
- Revisionary / Monographic / Systematic studies of different plant groups using modern taxonomic / phylogenetic tools.
- Identification of threatened species and their conservation.
- Develop and maintain botanical gardens, museum and herbaria.
- Survey and documentation of traditional knowledge associated with plants.
- Publication of National, State and District Floras, Checklists and e-Floras.
- Develop national database of Indian Flora, and industrially important plants.
- Capacity building in plant taxonomy.
- Public outreach and extension activities on Indian floristic wealth.

### b. Important activities undertaken

- BSI celebrated its 136th Foundation Day on February 13, 2025, in Kolkata and hosted the 3rd International Symposium on Plant Taxonomy, Ethnobotany, Botanic Gardens and Biodiversity Conservation (ISPTEBG&BC 2025) from February 13–15, 2025. This event served as a major forum for 520 participants, including international delegates, to share research and practical experiences in plant taxonomy, conservation techniques, and ethnobotanical studies.
- A three-day Pilot Capacity Building Programme for Biodiversity Management Com-

mittees was organized in Maharashtra and Uttarakhand from January 21–23, 2025 and from March 5–7, 2025, respectively.

- International Exhibitions and Workshops:
  - An international exhibition cum conference was organized jointly by BSI-ISIM, Kolkata, with Weaver's Studio and Bangladesh Museums at the Kolkata Centre for Creativity from January 30 to February 24, 2025.
  - A workshop on 'Natural dye extraction and application' was conducted by BSI-ISIM, Kolkata, in Bali Islands, West Bengal, during February 2025, in partnership with the University of Sussex, UK, and a local NGO
- Specialized Training Courses:
  - A Botanical Nomenclature Course, mentored by Dr. K.N. Gandhi of Harvard University, USA, was hosted by BSI-SHRC, Gangtok, from February 3–7, 2025.
  - One-day workshop titled 'Arunachal Taxonomy Summit: Unveiling Flora and Fauna in Connection with Current Environmental and Climate Change' was organized by BSI-APRC, Itanagar in collaboration with NABARD.
  - A two-day workshop on 'Taxonomy and Ecology of Floral Elements of the Eastern Himalayan Region and Hands-on Training on Systematics of Different Plant Groups' was organized by BSI-AZRC, Jodhpur.
- Taxonomy and Conservation Workshops:
  - A one-day workshop titled 'The Art & Science of Herbarium making: A hands-on workshop' was organized by BSI-DRC, Hyderabad, on March 13, 2025, in collaboration with Government Degree College, Begumpet.
  - IUCN Red List Assessor Training Workshop, facilitated by IUCN India and MoEF&CC, were jointly organized by BSI and ZSI at BSI-CNH, Howrah (August 26–30, 2024 and De-

ember 12–15, 2024) and BSI-NRC, Dehradun (August 23–29, 2025).

- Environmental Awareness Initiatives:
  - A special lecture on ‘The Changing Paradigm of our Environment’ was organized at BSI-ANRC, Port Blair, in association with SURYA, India, as part of the ‘Mission LiFE’ (Lifestyle for Environment) initiative.

### c. Progress/innovations

**New Discoveries:** BSI published Plant Discoveries 2024, a significant enumeration adding 1 family, 10 genera, 410 species, and 23 infraspecific taxa to the Indian flora. Of these discoveries, 245 were entirely new to science, while 188 represented new distributional records within the country, with seed plants and fungi each contributing the maximum share (36%) of novelties. These findings update the total recorded plant diversity in India to 56,177 taxa, encompassing 22,368 angiosperms, 15,986 fungi, 9,117 algae, 3,151 lichens, 2,850 bryophytes, 1,325 pteridophytes, 1,297 microbes, and 83 gymnosperms.

**Digitization,** BSI maintains the online digital platforms like “Indian Virtual Herbarium” (<https://ivh.bsi.gov.in/>), e-Plant Checklist of India and e-Flora of India (<https://efloraindia.bsi.gov.in/>), e-Archives (<https://archive.bsi.gov.in/>), Rare Books (<https://bsi.gov.in/page/en/rare-books>), Journal Nelumbo (<http://nelumbo-bsi.org>), Medicinal Plant Database (<https://bsi.gov.in/page/en/medicinal-plant-database>) etc. which serve as important online resources for the Botanical fraternity and promoting taxonomic research in the country.

During the reporting period, a total of 40,503 herbarium sheets were successfully digitized, and 88,056 associated metadata records were meticulously prepared and integrated into the online archives.

### d. Important Cumulative achievements

- Floral Survey, collection and identification: BSI undertook 88 floral surveys and local tours across diverse phytogeographical regions of the country as part of 80 distinct research initiatives. Three Herbarium Consultation Tours (HCTs) were also executed at various herbaria within India. These combined efforts during the reference period resulted in the collection and precise identification of 4,922 floral specimens across different plant categories.
- Ex-situ Conservation: BSI actively collected, multiplied, and introduced approximately 673 plant species into its network of botanic gardens. At the Acharya Jagadish Chandra Bose Indian Botanic Garden, new Medicinal Plants and Wild Edible Fruit sections established and a taxonomic garden and a sensory garden have been initiated. New facilities as Geographical Information System (GIS) laboratory and a Mushroom laboratory established at the Central National Herbarium (CNH) in Howrah.

### e. Continuing Committees / Commissions

- The 14th meeting of BSI Research Advisory & Monitoring Committee (RAMC) was convened at Kasauli, Himachal Pradesh, running from April 18th to April 20th, 2025.

### f. Important conferences organised in India or international conferences

BSI was represented at key international conservation forums by senior scientists who underscored India's commitment to biodiversity documentation and policy.

- Dr. S. S. Dash, Scientist-F & In-charge, Technical Section, BSI-Headquarters, participated in the IUCN World Conservation Congress 2025 in Abu Dhabi as part of the Indian delegation. During the congress, India launched its National Red List Roadmap and Vision 2025–

2030, a landmark initiative emphasizing science-based frameworks for comprehensive assessment and conservation of the nation's rich biodiversity.

- Dr. Avishek Bhattacharjee, Scientist-E, BSI-Central National Herbarium, Howrah, attended the 20th Meeting of the CITES Conference of Parties (CoP-20) held in Samarkand, Uzbekistan, from November 24 to December 5, 2025.

### g. **Multilateral Environmental Agreements (MEAs) with Countries and International Organizations**

BSI expanded its collaborative research network by signing three new Memoranda of Understanding (MoUs). These agreements were established with Berhampur University in Odisha, the Green For Life Foundation in Kolkata, and the esteemed Royal Botanic Garden in Edinburgh, UK, formalizing partnerships for future scientific cooperation and joint research initiatives.

### h. **List of major publications**

During the reference period, BSI published 11 volumes of the Flora of India (Volumes 8, 11, 14, 16, 19, 21, 27, 28, 30, 31, 32). Completion of the state flora publications, with three volumes each published for Gujarat and Chhattisgarh. BSI also produced a consolidated identification resource titled 400 Wild Mushrooms of India, an Illustrated Field Guide, designed to assist researchers and students for differentiation between edible and non-edible mushrooms based on appearance.

New titles slated for imminent publication:

- Bharat Vriksh-Trees of India (Two volumes), which will depict India's tree wealth.
- Botanical Paintings, a coffee table book showcasing the work of Indian botanical artists from the post-independence period.
- Amazing Antarctica (Cynoprokaryotes and Algae), a book offering the first insights into the microbial life of the Larsemann Hills following the First Indian Scientific Expedition to the re-

gion.



*Aeschynanthus chayangtajoensis* Chowlu from AN islands.



*Centranthera grandiflora* Benth Salisb. Scouting



*Desmos chinensis* Lour



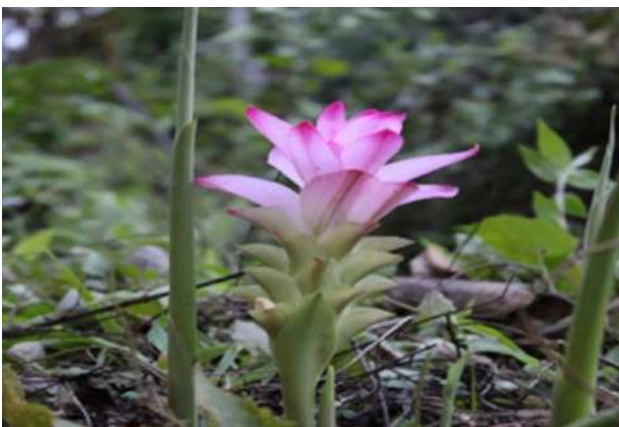
*Lagerstroemia parviflora* Roxb. of Lythraceae



*Hoya lanceolata* Wall



Bioluminescent Fungus *Mycena* sp



*Curcuma aromatica*

### 4.3.3 Assistance to Botanical Gardens (ABG) Programme

#### Introduction and Objective of ABG Program:

India is a signatory to the Convention on Biological Diversity (CBD) and is committed to achieving its ex-situ conservation targets, as outlined in Articles 6, 7, 12, and 15, through a well-structured approach. In 1992, the Ministry of Environment, Forest and Climate Change (MoEF&CC), Government of India, initiated the grant-in-aid program known as “Assistance to Botanic Gardens (ABG)”.

This program was introduced to assist botanic gardens situated in various phyto-geographical regions with the ex-situ conservation and multiplication of threatened and endemic plants, as well as the mass multiplication of threatened, economic, and high-value species. The program’s activities also encompass demonstration and knowledge dissemination, the exchange of live materials and seeds, fostering linkages between different botanical gardens for conservation purposes, and conducting plant-based research to study adaptability.

Through this programme, financial assistance is extended to organizations that maintain botanical gardens to help them strengthen their infrastructural facilities. This funding facilitates the conservation and propagation of threatened and endemic plant species, and supports the implementation of capacity-building programmes. The initiative aims to establish referral model centers for ex-situ conservation across various phyto-geographical regions by creating a network of both lead and smaller botanic gardens. These gardens are intended to function as key nodal agencies, developing interconnections to exchange knowledge and identified plant materials, ultimately ensuring the sustained maintenance of vulnerable plant populations.

The objectives of the scheme include:

1. ex-situ conservation and multiplication of identified threatened and endemic plants specific to the region.
2. Conduct ex-situ conservation efforts for selected wild relatives of crop plants.
3. Establish nurseries for mass multiplication and develop specific plant propagation techniques for each species.
4. Enhance identified infrastructure, acquire necessary conservation equipment, and ensure sufficient manpower for garden maintenance.
5. Distribute and exchange multiplied plant material with other Botanic Gardens and Institutes.
6. Organize seasonal events and theme-based activities to promote public education and awareness regarding plant diversity, as well as threatened and endemic species.

## Progress / Achievements

During the Financial Year 2024-25, the BSI (Botanical Survey of India) released a total of ₹1,49,86,168/- to support 14 botanic gardens across the country under the "Assistance to Botanic

Gardens" programme.

Field explorations are a key part of the conservation effort. Scientists from the AJC Bose Indian Botanic Garden, Shibpur, Howrah, conducted an expedition to the Western Ghats of Maharashtra. They successfully collected healthy tubers of *Aponogeton satarensis* from the Satara district. These tubers were carefully cleaned, packed in moss, and transported back to the garden for further study and propagation. Upon arrival, an experimental setup was initiated to determine the optimal growing conditions for *Aponogeton satarensis*. The tubers were planted in six different media compositions: mud, sand, sand with laterite rocks, red soil with laterite rock, mud with laterite rock, and a comprehensive mixture of sand, red soil, vermicompost, cocopeat, and mud (in a 20:20:20:20:20 ratio). Initial observations indicate that the red soil with laterite rock medium, plain mud, and the complex mixture of sand, red soil, mud, vermicompost, and cocopeat are yielding the best responses. Similar propagation experiments are also underway for other species of interest, including *Garcinia indica* and *Knema andamanica*. To support these ongoing research and propagation activities, infrastructure improvements have been made, including the installation of a fogger system and chain-linked nursery bed stands inside the poly house.

Conservation efforts also involve extensive networking and collaboration. Green Ahalia, as part of their plant collection initiatives, visited several key nurseries and research institutes across South India to source planting materials and check availability for developing a vital germplasm bank. Visited locations included the KFRI nursery, KAU (Kerala Agricultural University) Nursery, Rayirath Garden in Pattikad, TDU-FRLHT in Bangalore, IIHR Bangalore, and IFGTB Coimbatore. At the ICFRE-Institute of Forest Genetics and Tree Breeding (IFGTB), the International Day for Biological Di-

iversity was celebrated on May 22nd, 2025, with a commemorative palm plantation programme. The institute has also embraced modern technology by creating quick response (QR) codes for several tree species to enhance information dissemination.

Regional institutions are contributing significantly to both discovery and practical conservation methods. The Maharaja Sayajirao University of Baroda, Vadodara, Gujarat, discovered a new population of *Cansjera rheedii* at Ozar village, Valsad, during a recent field survey, effectively extending the known distribution of the species within Gujarat. The university also achieved successful propagation of *Commiphora stocksiana* using stem cuttings, providing a practical and efficient approach for its conservation and potential mass multiplication.

A unique outreach initiative took place during the National Botany Fest 2025. Seeds of the endangered palm species *Hyphaene dichotoma* were distributed to 210 participants and dignitaries representing different states of India. This gesture served as a memorable souvenir and directly aligned with the festival's core objective of promoting plant conservation and public awareness.

Practical propagation techniques continue to be refined for various species. Seeds of *Bombax insigne*, collected from Saputara on March 21, 2025, were air-dried and stored under ambient conditions before being initiated for germination. The process involved direct sowing into nursery polybags containing a well-drained potting mix.



Collection of seedlings of *Syzygium stocksii* (Duthie) Gamble from Western Ghats



Naturally ventilated poly house for conservation



Training session for school students demonstrating propagation methods



Training session for school students demonstrating propagation methods



Prepared saplings of *Bombax insignae*



Quick Response Code

## 4.4 Biosphere Reserves

### Conservation & Survey - I (Biosphere Reserve) Division

#### a. Introduction, Objective and Functions

Biosphere Reserves are large landscapes, which represents terrestrial and coastal/marine ecosystems or a combination thereof. These are designated within the framework of UNESCO's Man and Biosphere Programme. The Biosphere Reserves represent characteristic ecosystems in different biogeographic zones and local communities as one of the integral component.

Biosphere Reserves are demarcated into following three inter-related zones viz:

- i. Core Zone- strictly protected for conservation of landscapes, ecosystems, species, and genetic variation.
- ii. Buffer Zone- surrounds the core; used for research, education, and sustainable activities.
- iii. Transition Zone - outermost part; fosters economic and human development that is socio-culturally and ecologically sustainable.

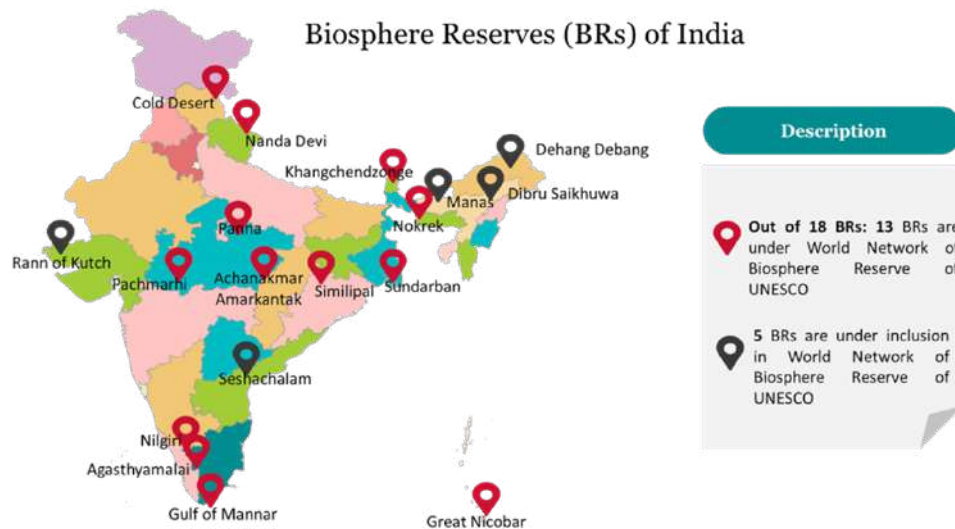
Man and the Biosphere (MAB) Programme is a flagship intergovernmental scientific initiative of UNESCO launched in 1971 to improve the relationship between people and their environment through interdisciplinary research, capacity building, and policy advice. The MAB Programme contributes to achieving the Sustainable Development Goals (SDGs) by promoting conservation of biodiversity, sustainable use of natural resources, and socio-economic development of local communities.

CS I (Biosphere Reserve) Division of the Ministry of Environment, Forest & Climate Change administers a Centrally Sponsored Scheme namely 'Biodiversity Conservation' scheme, which is a

**List of Biosphere Reserves in India**

S.No.	Name of the BR	Year of Designation	Year of inclusion in the WNBR	States	Area (sq.km)
1	Nilgiri*	1986	2000	Tamil Nadu, Kerala and Karnataka	5520
2	Nanda Devi*	1988	2004	Uttarakhand	6407.03
3	Nokrek*	1988	2009	Meghalaya	820
4	Gulf of Mannar*	1989	2001	Tamil Nadu	10500
5	Sunderbans*	1989	2001	West Bengal	9630
6	Manas	1989		Assam	2837
7	Great Nicobar*	1989	2013	Andaman and Nicobar Islands	885
8	Simlipal*	1994	2009	Odisha	5569
9	Dibru-Saikhowa	1997		Assam	765
10	Dehang-Dibang	1998		Arunachal Pradesh	5111.50
11	Pachmarhi *	1999	2009	Madhya Pradesh	4981.72
12	Khangchendzonga*	2000	2018	Sikkim	2931.12
13	Agasthyamalai*	2001	2016	Kerala, Tamil Nadu	3500
14	Achanakmar-Amarkantak*	2005	2012	Madhya Pradesh, Chhattisgarh	3835.46
15	Great Rann of Kutch	2008		Gujarat	12454
16	Cold Desert*	2009	2025	Himachal Pradesh	7770
17	Seshaschalam	2010		Andhra Pradesh	4755.58
18	Panna*	2011	2020	Madhya Pradesh	2998.98

*\*included in the World Network of Biosphere Reserves*



sub-scheme under umbrella scheme 'Conservation of Natural Resources and Eco-systems'. Under the scheme, the Division supports Biosphere Reserve (designated under framework of UNESCO's Man and the Biosphere Programme) by providing grants-in-aid to the States where the Biosphere Reserves are located, for conservation and development activities as specified in their Management Plan. The implementation of this scheme is undertaken by the State Forest Departments. Thus, the Ministry provides grants-in-aid to the states on cost sharing basis i.e. 60:40 (Central: State) for other States and 90:10 (Central: State) to North Eastern and Himalayan States.

#### **b. Important activities undertaken**

- The Ministry is implementing integrated Management Plan (IMP) for Biosphere Reserve for the Period of Five Year since 2022-23 in four identified Biosphere Reserves namely Nanda Devi (Uttarakhnad), Pachmarhi (Madhya Pradesh), Dehang-Dibang (Arunachal Pradesh) and Agasthyamala (Kerala & Tamil Nadu). The Ministry provides fund to said five States in the said period for implementation of IMP for Biosphere Reserve.
- As a nodal point, the Ministry has submitted a ten-year periodic review report for eight Biosphere Reserves Nanda Devi, Similipal, Pachmarhi, Nokrek, Nilgiri, Gulf of Mannar,

Achanakmar-Amarkantak, and Sundarbans to the MAB Secretariat, UNESCO, Paris for their consideration.

- Additionally, two proposals for the inclusion in the World Network of Biosphere Reserves viz. Dehang-Dibang and Cold Desert, have also been submitted to the MAB Secretariat, UNESCO for consideration. Cold Desert has been included in the UNESCO's World Network of Biosphere Reserve.
- States Governments have been asked for identification of new areas for designation as Biosphere Reserves.
- Participation in ICC-MAB meeting at China during September 26-28, 2025.

#### **c. Progress / Innovation**

Three new proposals for designation as Biosphere Reserves from the state of Madhya Pradesh, Viz. Kanha, Pench, and Bandhavgarh areas, received from the State of Madhya Pradesh was submitted to the MAB Secretariat, UNESCO for consideration in the next session of ICC-MAB.

#### **d. Important Cumulative achievements**

- During the ICC-MAB meeting in China in 2025, the Cold Desert Biosphere Reserve was officially included in the UNESCO World Network of Biosphere Reserves, marking a new addition from India. India now has 13 Bio-

sphere Reserves in the UNESCO World Network of Biosphere Reserves, the highest number in South Asia.



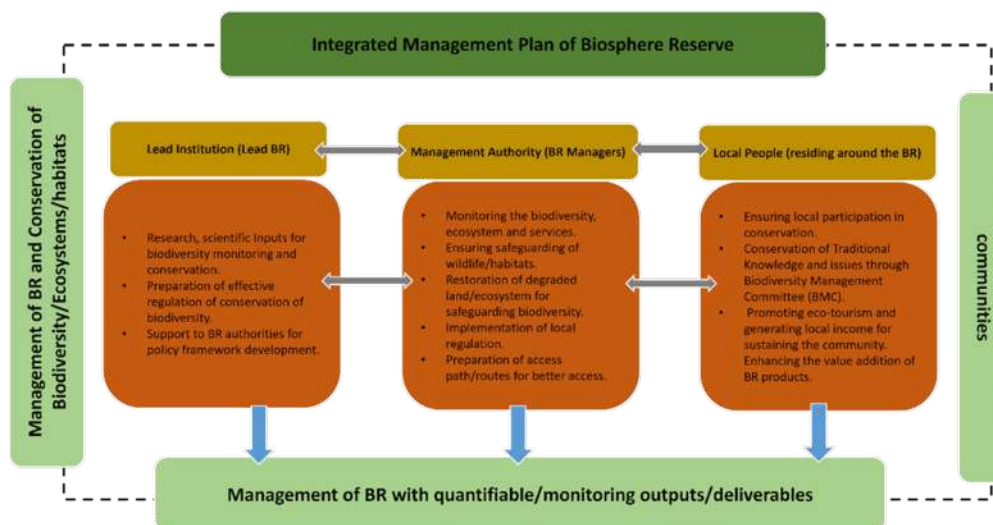
Cold Desert Biosphere Reserve

**Scheme/Programme under the Division-**  
**a. Name of the scheme: Biodiversity Conservation scheme**

- 'Biodiversity Conservation' scheme is a sub-scheme under Centrally Sponsored Umbrella Scheme namely Conservation of Natural Resources and Ecosystem of the Ministry of Environment, Forest and Climate Change. Under the scheme, the financial supports are provided to the States for Management Plan of Biosphere Reserve (designated under framework of UN-

ESCO's Man and the Biosphere Programme). The targeted beneficiaries of the Scheme are primarily the population dependent on the Biosphere Reserves. The scheme is different from other conservation related schemes and has the focus on the welfare of local inhabitants through provision of supplementary and alternate livelihood support to the people in the buffer and transition zones in order to reduce biotic pressure on biodiversity of the natural reserves of core zone.

- Since FY 2022-23, Integrated Management Plan for Five Years period in four identified Biosphere Reserves namely Nanda Devi (Uttarakhand), Pachmarhi (Madhya Pradesh), Dehang-Dibang (Arunachal Pradesh) and Agasthyamala (Tamil Nadu and Kerala) is being implemented on pilot basis. IMPs provide a detailed roadmap covering biodiversity protection, promotion of sustainable livelihoods, eco-tourism development, capacity building, and awareness programmes. IMPs also set out mechanisms for research, monitoring and community participation, thereby ensuring a holistic approach that combines ecological integrity with socio-economic development.



During the period of 01.01.2025 to 31.12.2025 the following amount for implementation of

IMP for Biosphere Reserve has been released to five said States:

Period	Amount (Rs. in lakhs)
01.01.2025 to 31.03.2025	60.21
01.04.2025 to 31.12.2025	216.89

#### b. Progress/Achievement

- Integrated Management Plan for Biosphere Reserve for the period of five years is in progress (in fourth year) in four Biosphere Reserves.
- Cold Desert Biosphere Reserve was included in the UNESCO's World Network of Biosphere Reserves, marking a new addition from India. India now has 13 Biosphere Reserves in the UNESCO World Network of Biosphere Reserves, the highest number in South Asia.
- The Ministry is actively considering for designating new Biosphere Reserve. Three new proposals for designation as Biosphere Reserves from the State of Madhya Pradesh, Viz. Kahan, Pench, and Bandhavgarh areas, received from the State of Madhya Pradesh was submitted to the MAB Secretariat, UNESCO for consideration in the next session of ICC-MAB.

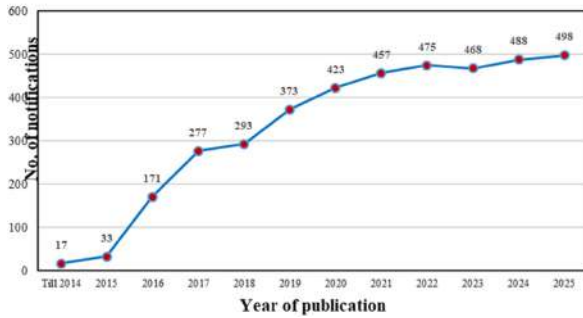
#### 4.5 Eco-Sensitive Zone

- The purpose of declaring Eco-sensitive Zone (ESZ) is to create a kind of "Shock Absorber" for specialized ecosystems like Protected Areas such as National Parks and Wildlife Sanctuaries. The ESZs act as a transition zone from areas requiring high protection to areas of lower protection where development may be permitted. There are a total of 688 National Parks and Wildlife Sanctuaries (Protected Areas) declared in the country.
- Notifying or declaration of an Eco-Sensitive

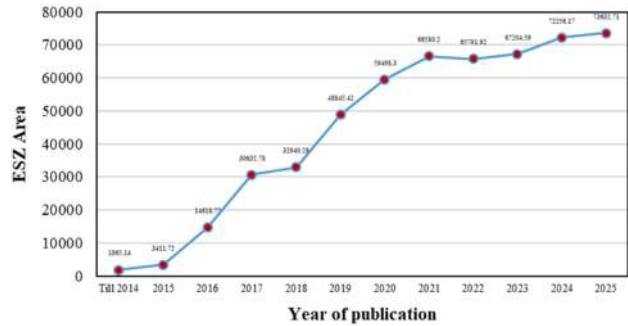
Zones around the Protected Areas is an important objective of the Ministry of Environment, Forest and Climate Change for sustainable development and conservation of Wildlife and Biodiversity around the Protected Areas. The Ministry of Environment, Forest and Climate Change declare or notifies an area as Eco-Sensitive Zone (ESZ) around a Protected Area based on its need for special protection owing to because of its landscape, wildlife, biodiversity and historical value, etc. The purpose is to regulate the developmental activities in order to maintain the carrying capacity of that area and to ensure sustainable development taking into consideration in consonance with the needs and aspiration of the local people.

- For declaration of an ESZ around a Protected Area, proposals received from the State Government as per Guidelines formulated for the purpose and shared with the State Governments and Union territory administrations. As of now, out of total 688 Protected Areas across the country, the Ministry has published 355 final ESZ notifications covering 498 Areas an ESZ area of 73602.71 sq. km as on 31st December, 2025.
- A graphical representation on the progress of declaration of ESZs around Protected Areas since 2014 onwards and the areas in square Kilometers (sq. km) covered under ESZ regulations are given below:

No. of final notifications (Year-wise)



Cumulative ESZ Area (in sq. km)



- Besides, the Ministry also notifies or declares an Eco-Sensitive Area (ESA), which is a type of designation for an area having rich environmental resources and needs special protection because of its landscape, wildlife or historical value. The purpose for declaring ESA is to protect the environment, to avoid its degradation due to anthropogenic activities and to put restrictions on activities posing environmental threat to the natural resources. So far, the Ministry has notified six ESAs in the country.
- The Ministry has empowered the concerned State Governments by making amendments in the ESZ notifications for approval of the Zonal Master Plan / Regional Plan / Development Plan, etc. for effective enforcement and implementation of the ESZ notifications.

Table 1: Final ESZ Notifications published in the Year 2025

S.N	State	Name of Protected Area (s)	Date of Publication
1.	Rajasthan	Shergarh Wildlife Sanctuary	19.02.2025
2.	Chhattisgarh	Bhoramdev Wildlife Sanctuary	10.03.2025
3.	West Bengal	Halliday Island Sanctuary	14.05.2025
4.	Jammu & Kashmir	Tral Wildlife Sanctuary	26.05.2025
5.	Karnataka	Kappathagudda Wildlife Sanctuary	04.06.2025
6.	Himachal Pradesh	Rupi Bhabha Wildlife Sanctuary	15.10.2025
7.	West Bengal	Lothian Island Wildlife Sanctuary	05.12.2025
8.	West Bengal	West Sundarban Wildlife Sanctuary	09.12.2025

- With the objective of decentralization of powers, the Ministry has also made amendments in a number of ESZ notifications empowering the concerned State Governments, who is the custodian of the land in the state and is responsible for its management, for approval of the Zonal Master Plan / Regional Plan / Development Plan etc. for effective enforcement and implementation of the ESZ /ESA notifications.
- The ESZ Division in the Ministry also administers and handles matters related to Grants-in-Aid to Dahanu Taluka Environment Protection Authority, constituted in compliance to an order of the Hon'ble Supreme Court for protection and conservation of Dahanu Taluka. The financial assistance released during in the year 2025 as on 31.12.2025 are as follows:

**Table 2 : Details of financial assistance released during 2025**

S. No.	Name of Organization	Purpose	Total Amount Released as on 31.12.2025 (in INR)	Status of Third-party evaluation	Remark
1.	Dahanu Taluka Environment Protection Authority (DTEPA)	Functioning of Authority	72,82,676.84	NIL	The funds were released from the scheme of Establishment Expenditure (EF&CC) (3493) Major Head '3435' Ecology and Environment, Grant in-aid-General (3435.01.001.04.04.31), under Demand No.28, Ministry of Environment, Forests and Climate Change during the Financial Year 2025-2026 (Plan) from the budget head of PL-Division.

# Chapter 5

## WETLANDS & COASTAL ECOSYSTEM



## 5.1 National Plan for Conservation of Aquatic Eco-System (NPCA)

### 1. Wetlands Division

#### a. Introduction, objectives, and functions

The Wetlands Division, MoEF&CC works towards sustainable management and conservation of wetlands in the country. The Division's objective of conservation and management of wetlands is divided into four broad categories i.e., Implementation of National Plan for Conservation of Aquatic Ecosystems (NPCA), Ramsar Convention, Regulatory framework and Capacity building.

#### b. Important activities undertaken

- (i) The Ministry of Environment, Forest, and Climate Change (MoEFCC) celebrated World Wetlands Day on 2nd February 2025 at the Parvati Arga Bird Sanctuary, a Ramsar Site in Gonda, Uttar Pradesh. This event was organised in collaboration with the Uttar Pradesh Department of Forest and the State Wetland Authority. The celebrations began with a bird-watching event, followed by the inauguration of an exhibition by Hon'ble Chief Minister Shri. Yogi Adityanath and Hon'ble Minister of State for Environment, Forest and Climate Change, Govt. of India Shri. Kirti Vardhan Singh.
- (ii) Three regional workshops were organised under the Sahbhagita Mission at Ayodhya for Northern States on 1st February 2025, at Udaipur for Western States on 3–4 July 2025, and at Shimla for Northern States on 30–31 October 2025.
- (iii) Indian delegation led by Hon'ble Minister of Environment, Forest and Climate Change (Head of the Delegation), Government of India, Shri Bhupender Yadav, participated in 15th meeting of the Conference of Contracting Parties (COP-15) -2025 of the Ramsar Convention on Wetlands held during 23rd to 31st July, 2025 in Victoria Falls (Zimbabwe). The theme of

COP15 was “**Protecting Wetlands for our Common Future**”.

#### c. Progress / Innovations

- (i) **Increase in number of Ramsar sites** - The Wetlands division of the Ministry facilitated the designation of 11 more Ramsar sites (Annexure-1) to take the total number of Ramsar sites in the country from 85 to 96 as on December 2025. Two more have been added in January 2026 with total 98 Ramsar sites in the country. Currently, India stands first in Asia and third in the world in terms of the number of Ramsar Sites.
- (ii) **Wetland City accreditation for the first time in India**- Two cities namely, Indore in Madhya Pradesh and Udaipur in Rajasthan accredited as ‘Wetland Cities’ under the Ramsar Convention during COP-15 for their outstanding commitment to safeguarding urban wetlands for the benefit of people and nature. This further cemented India's leadership in integrating wetlands into urban planning and community stewardship.

#### d. Important cumulative achievements

- (i) **Adoption of India's Draft Resolution:** India's Draft Resolution 23.20 on “Promoting Sustainable Lifestyles for the Wise Use of Wetlands” was formally adopted by the COP. This resolution, aligned with India's Mission LiFE, reinforces the global call for responsible consumption and participatory conservation practices.
- (ii) **Elected as Standing Committee Member:** India was elected to the Ramsar Standing Committee for the 2026–2028 triennium, marking its third tenure on the Committee since the 1999–2002 period.
- (iii) **Membership in Key Ramsar Bodies:** India secured membership in two critical working structures of the Ramsar Convention. (a) Work-

ing Group on RIS updating – focusing on enhancing the quality and consistency of Ramsar Information Sheets. (b) CEPA Oversight Panel – overseeing communication, education, participation, and awareness initiatives under the Convention.

- (iv) Ground truthing and boundary demarcation of Wetlands is a continuous process and under progress.

### e. Promulgation of new Acts/Rules

The Wetlands (Conservation and Management) Rules, 2017 will be amended and notified based on the suggestions received / to be received from the States and UTs.

### f. Continuing Committees / commissions

During the CoP15 of Ramsar Convention held from July 20-31st, 2025 at Zimbabwe, India was elected to the Ramsar Standing Committee for the 2026–2028 triennium, marking its third tenure on the Committee since the 1999–2002 period

### g. Important Conferences / Workshops organized

- (i) **Regional Workshop on Conservation and Wise Use of Wetlands for Northern States** - MoEF&CC organised a regional workshop for Northern states on 1st February 2025 at Ayodhya, Uttar Pradesh. The key points covered were, updates on the progress of ground-truthing and boundary demarcation of wetlands based on the SAC Atlas, 2021, major achievements such as the designation of Ramsar Sites and the preparation of health cards for wetland areas, identification of key challenges faced in the conservation and management of wetlands within each region conservation and provided a comprehensive platform for sharing challenges and best practices.
- (ii) **Regional Workshop on Conservation and Wise Use of Wetlands for Central and Western States** –

MoEF&CC organised a regional workshop for Western and Central States on 03-04 July 2025 at Udaipur, Rajasthan. The workshop served as a platform to share best practices, deliberate on policy and governance frameworks, and explore solutions to challenges in wetland conservation.

As part of the event, two significant publications were launched: The ANUP Newsletter (January–June 2025), which highlights recent wetland conservation developments across the country. The “Wetland Conservation: Do’s and Don’ts” booklet, which offers easy to-understand guidelines for communities and decision-makers engaged in wetland stewardship. The workshop served as a platform to share best practices, deliberate on policy and governance frameworks, and explore solutions to challenges in wetland conservation. Technical sessions covered a range of themes including Wetland City Accreditation under Ramsar Convention, participatory wetlands conservation, integrating wetlands with local development planning, interaction with Wetland Mitras to develop effective engagement strategies.

- (iii) **Regional Workshop on Conservation and Wise Use of Wetlands for Northern States, Shimla**

MoEF&CC organised a regional Sahbhagita Workshop on Conservation and Wise Use of Wetlands for Northern Region States in Shimla, Himachal Pradesh during 30-31st October 2025. During the workshop, representative from Tata motors briefed about the efforts / ways the company is doing for the conservation of wetlands within their company jurisdiction apart from CSR initiatives, which could be taken by the other company for conservation of wetland. During this workshop, 3 publications were released (i) Sustainable Lifestyles for the Wise Use of Wetland (Postcard), (ii) Peatlands

of India: An Overview and Future Roadmap and (iii) National CEPA Strategy for Wetlands of India. All the participants also visited Renuka wetland as part of workshop.



**MoEF&CC organised a regional Sahbhagita Workshop on Conservation and Wise Use of Wetlands or Northern Region States in Shimla, Himachal Pradesh.**

## **h. List of Major Publications in 2025:**

- (i) India's 85 Amrit Dharohar: Ramsar Sites of India Factbook- The "India's 85 Amrit Dharohar – Ramsar Sites of India Factbook" is a comprehensive resource that highlights the significance of India's Ramsar sites.
- (ii) Training Curriculum: Wetland Conservation and Management: A Collection of Learning Modules- aims to contribute to scaled capacity development initiatives with six learning modules and a collection of stakeholder-specific training plans.
- (iii) Wetlands for LIFE: publication developed by MoEFCC under the Wetlands Management for Biodiversity and Climate Protection project, implemented by Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH on behalf of the German Federal Ministry for the Environment, Nature Conservation, Nuclear Safety and Consumer Protection (BMUV) under the International Climate Initiative (IKI).
- (iv) ANUP Newsletter (Biannually): Two newsletters published by the Wetlands Division of MoEFCC.
- (v) National CEPA Strategy for the Wetlands of India: MoEFCC prepared a Communication, Capacity Building, Education, Participation, and

Awareness (CEPA) for Wetlands of India.

- (vi) Launch of Digital Tools: Climate change co-benefits of Wetlands (CoWet) is a decision-support tool designed to assess the climate change adaptation co-benefits of wetland management interventions. The app helps users identify climate hazards, map interventions, and quantify benefits such as reduced crop loss, improved water storage, avoided health risks, and resilience of communities and ecosystems. Developed under the Indo-German Support Project for Climate Action in India, Co-WET empowers wetland managers, policymakers, and researchers with a structured, step-by-step framework to link interventions with measurable adaptation outcomes.
- (vii) Release of a Poster: Saat Kadam (Hindi): Seven Steps for conserving small waterbodies

## **2. Scheme under Division:**

### **a. Name of the Scheme : National Plan for Conservation of Aquatic Ecosystems**

The Wetlands Division of MoEF&CC implements a centrally sponsored scheme namely, National Plan for Conservation of Aquatic Ecosystems (NPCA) for conservation and management of wetlands in the country on cost sharing basis between Central Government and respective State / UT Governments. The scheme aims at holistic conservation and restoration of wetlands for achieving the desired water quality enhancement, besides improvement in biodiversity and ecosystems. It aims to promote mainstreaming of wetlands in developmental programming with States by supporting formulation and implementation of integrated management plans, capacity development and research. Various activities covered are interception, diversion and treatment of wastewater, shoreline protection, lake front development, in-situ cleaning i.e., de-silting & de-weeding, storm water management, bioremediation, catchment area treatment, lake beautification, survey & demarcation, bio-fencing, fisheries development, weed control, bio-

diversity conservation education and awareness creation and community participation.

### b. Progress / Achievements:

During the period from 01.01.2025 to 31.12.2025, an amount of Rs. 6.70 cr was released as central share to concerned State Governments / Organisations for conservation and management of Wetlands namely Doyang in Nagaland, Yaral Pat in Manipur, Ansupa lake in Odisha, Amrit sagar in Madhya Pradesh. During the FY 2025-26 (from

01.04.2025 to 31.12.2025), an amount of Rs. 14.04 cr has been released to the concerned States / UTs for conservation and management of 8 wetlands (including Ramsar sites) namely Sita sagar, Amrit sagar in Madhya Pradesh, Khecheopalri, Gurudongmar, Yangchen Tso, Tamzey in Sikkim, East Kolkata wetland in West Bengal, Sarsai Nawar wetland in Uttar Pradesh. Overall, a total amount of Rs. 20.76 cr has been released during the reported period from 01.01.2025 to 31.12.2025.

### 3. Grant-in-aid released to Institutions / organisations including NGOs.

S. No.	Name Organisation	Purpose	Total Amount Released	Status of the third party evaluation
1.	NCSCM	“Holistic Conservation and Integrated Management of Wetlands” focuses on inventorying, creating a national database, advanced research capacity development on the wetlands of India.	2 Cr.	NIL

### Annexure-1 Ramsar Sites declared during 2025

S. No.	Name of wetland/Ramsar site	State
1.	Khachoedpalri wetland	Sikkim
2.	Sakkarakottai Bird Sanctuary	Tamil Nadu
3.	Therthangal Bird Sanctuary	Tamil Nadu
4.	Udhwa Lake Bird Sanctuary	Jharkhand
5.	Menar Wetland Complex	Rajasthan
6.	Khichan wetland	Rajasthan
7.	Gokul Jalashay	Bihar
8.	Udaipur Jheel	Bihar
9.	Gogabil Lake	Bihar
10.	Siliserh Lake	Rajasthan
11.	Kopra Jalashay	Chhattisgarh



Hon'ble Minister, Environment, Forest and Climate Change meets Ramsar Secretary General of Ramsar Convention at COP15, Zimbabwe

## 5.2 Sustainable Coastal Management (SCM)

### 1. Sustainable Coastal Management Division

#### a. Introduction, objectives and functions

Sustainable Coastal Management Division was created by MoEFCC vide order dated 30.05.2022 with the following work allocation:

- i. Implementation of National Coastal Mission
- ii. Matters related to National Centre for Sustainable Coastal Management (NCSCM)
- iii. Matters related to Blue Economy
- iv. Externally Aided Projects assigned to Sustainable Coastal Management Division Green Climate Fund Assisted Enhancing Climate Resilience of India's Coastal Communities (GCF-ECRICC)

The main roles and responsibilities are as follows:

1. Strengthening the resilience of coastal and marine ecosystems and the essential services
2. Undertaking focused research and development initiatives to support coastal ecosystems
3. Advancing Coastal Marine Spatial Planning and Integrated Coastal Zone Management plans
4. Enabling climate-resilient development within



Indian Delegation at the Plenary Session

the blue economy by ensuring safeguards for coastal ecology and the marine environment, supported through pilot and demonstration projects.

5. Enhancing stakeholder awareness on conservation of coastal ecosystems while encouraging the adoption of adaptation and mitigation measures and advance Atmanirbhar Bharat initiatives
6. Coordinating with State governments to facilitate Blue Flag certification for beaches.

#### b. Important activities undertaken

To sensitize local communities about the importance of clean beaches and pollution-free oceans-key priorities under SDG 14 (Life below Water) and with an emphasis on effective management and prevention of marine litter, Ministry organizes mass beach-cleaning drives annually on International Coastal Clean-Up Day, observed on the third Saturday of September. In 2025, the beach-cleaning campaign was conducted on 20<sup>th</sup> September 2025 under the ambit of Sewa Parv, across Seventy Nine beaches in Nine (9) coastal States and four (4) Union Territories, with the mega event held at Golden Beach, Puri, Odisha. The campaign resulted in the collection of over 125 tonnes of waste with participation from more than 30,000

volunteers. 7831 Sustainable Beach participation certificates were issued to the volunteers for their

contribution in the beach cleaning campaign and for encouraging continued public engagement.



International Coastal Clean up Day at Golden Beach, Odisha

### c. Progress / Innovations

- I. 13 beaches across Six (6) states and Three (3) union territories have been certified with Blue Flag certification for the season 2025-26. However, the certificate of Blue Flag for Eden Beach in Puducherry has been conditionally awarded subject to restoration of minimum compliance of the beach safety measures.
  - i. Ghoghla beach - Diu, (Dadra and Nagar Haveli and Daman and Diu)
  - ii. Ecobeach - Kasarkod (Karnataka)
  - iii. Padubidiri beach, Padubidri (Karnataka)
  - iv. Kappad beach, Kozhikode (Kerala)
  - v. Kovalam beach, Kovalam (Tamil Nadu)
  - vi. Rushikonda beach, Visakhapatnam (Andhra

- Pradesh)
- vii. Golden beach, Puri (Odisha)
- viii. Sonapur beach, Sonapur (Odisha)
- ix. Radhanagar beach, Swaraj Dweep Island (Andaman)
- x. Tannirbhavi beach (Karnataka)
- xi. Chal beach, Kannur (Kerala)
- xii. Shivrajpur (Gujarat)
- xiii. Eden beach, Puducherry (Puducherry)
- II. Additionally, Eight beaches (Five in Maharashtra and Three in Andaman) have been encouraged to adopt measures for developing requisite infrastructure and management practices for Blue Flag Beaches.
- III. The “Rehabilitation of Wild Orchids” initiative at Kappad Blue Flag Beach, Kozhikode, Ker-

ala, received the First Prize in the Best Case Study – Good Practices Competition among Blue Flag countries of the Southern Hemisphere, under the thematic category “Combat Pollinators & Insects Loss.” This recognition is acknowledgement by Federation of Environmental Education (FEE) Denmark and highlights India’s strengthened commitment to integrating biodiversity conservation and ecosystem restoration into beach management practices.

- IV. Contributed significantly in preparation of Draft Indian Standards on Sustainable Beach Operations which have been developed and have been circulated to the stakeholders for comments. This activity has been undertaken in collaboration with Bureau of Indian Standard (BIS)

#### **d. Conferences organized in India or international conferences**

##### **Bhubaneswar workshop**

A National Workshop on ECRICC Project was convened from 23rd to 25th September 2025 at, Bhubaneswar, Odisha. The workshop was organized by Ministry of Environment, Forest and Climate Change in collaboration State Project Management Units (SPMUs) of Odisha, Andhra Pradesh, and Maharashtra. The workshop brought together policymakers, technical experts, practitioners, and community representatives to review progress, share experiences, and chart the way forward for effective implementation of the project.

The three-day work shop was structured to facilitate both high-level deliberations and practical learning. Including a detailed project briefing covering background, institutional structures, and roles of stakeholders, along with a presentation on implementation status and progress.

#### **e. MEAs, Agreement with countries, inter-**

#### **national organizations**

Three draft MoUs have been prepared for collaboration with French organization under the Joint Working Group of India and France on Blue economy and Ocean Governance. The subject matter for MoUs are (i) Marine Spatial Planning, (ii) Coastal Ecosystem Services and (iii) Coastal Ecology Environment

#### **f. List of major publications**

Following reports has been published under the GCF-ECRICC project

- i. Crab farming in Odisha
- ii. Climate Champions of Coastal Odisha-Success Stories

### **2. National Coastal Mission**

#### **a. Scheme / Programme and its objectives:**

National Coastal Mission (NCM) a Central Sector Scheme under the National Coastal Management Programme, aims at enhancing the resilience and sustainability of India’s coastal regions. Initially launched with a budgetary outlay of ₹87 crore for a period of five years (FY 2021–2026), the scheme has extended for another six years from 2025 to 2031, with a budgetary allocation of ₹767crore (approved on 16 May 2025).

The activities under the NCM will be concentrated in the coastal region and will provide impetus to the Blue Economy without compromising safeguards to Costal Ecosystem and Marine Environment and will have direct and indirect benefits to the coastal communities. The indicative list of approved activities are as follows:

- i. Development of Climate resilient and environment friendly coastal tourism infrastructure
- ii. A&N Action plan for Climate Change including interventions for Biosphere Management
- iii. Pollution abatement, monitoring & control measures (Study of deep sea discharge)

- iv. Development of coral reefs & its management
- v. Conservation of Sea Water Dolphin
- vi. Development of criteria and designing guidelines for green coastal infrastructure for highly eroding coastlines
- vii. Development of integrated coastal zone management plan and Coastal & Marine Spatial Plan
- viii. Project Preparatory Expense (including Assessment of Cumulative vulnerability of coastal communities and ecosystem due to climate change risks)
- ix. Environmental Education, Capacity Building, Awareness,
- x. Marine Research, Conservation & Information

centre cum marine Oceanarium at Somnath

### 3. Autonomous bodies

National Centre for Sustainable Coastal Management (NCSCM) is an organization, registered as Society with no financial support from MoEFCC. The work and outputs including its financial management are governed under the provisions of its MoA and being reviewed by the General Body / Governing Council / Management Committees as per the mandate in the Memorandum of association (MoA) and are reviewed by the General Body / Governing Council / Management Committees, as per the mandate in the MoA.

### 4. Grants-in-aid released:

S. No.	Name of Organization	Purpose	Total amount released
1.	National Centre for Sustainable Coastal Management, Chennai	Beach cleaning drive on the occasion of International Coastal clean-up Day on September 20, 2025	1.18 cr released to NCSCM against the allocation of 1.21 in Grants in aid general for onward transfer to respective State government for undertaking beach cleaning campaign on International Coast Cleanup Day (3rd Saturday of September)

## 5.3 National Centre for Sustainable Coastal Management NCSCM

### a. Introduction, objectives, and functions

The National Centre for Sustainable Coastal Management (NCSCM), established in 2011 by the Ministry of Environment, Forest and Climate Change (MoEF&CC), is mandated to support the protection, conservation, and sustainable management of India's coastal and marine ecosystems. As the premier national institution for coastal research and management, NCSCM provides scientific, technical, and knowledge-based support to the

Union and State Governments and to relevant coastal authorities. The Centre plays a pivotal role in coastal planning and regulation, including the preparation and technical appraisal of Coastal Zone Management Plans (CZMPs) in accordance with the Coastal Regulation Zone (CRZ) Notifications, 2011 and 2019.

NCSCM undertakes advanced research and development to promote sustainable coastal management practices and to ensure the long-term ecological security of coastal, marine, and wetland systems. NCSCM undertakes advanced research

and development to enhance sustainable coastal management, strengthen climate change resilience, and advance marine spatial planning. It also supports India's Blue Economy initiatives through science-based research and promotes coastal livelihoods and socio-economic wellbeing, thereby safeguarding the long-term ecological security of coastal, marine, and wetland systems

### Key Objectives of NCSCM

- **Scientific Research:** Undertake multidisciplinary research and development on coastal, marine, and wetland ecosystems, including their resources, functions, and environmental processes to strengthen climate change resilience, support India's Blue Economy, advance marine spatial planning, and promote coastal livelihoods and socio-economic wellbeing.
- **Integrated Management:** Promote integrated and sustainable management approaches for coastal and marine areas, with particular emphasis on supporting traditional coastal and island communities.
- **National Framework Development:** Develop, strengthen, and operationalise a national framework to support policy, strategies, and decision-making for sustainable coastal management.
- **Policy and Technical Support:** Provide scientific, technical, and advisory support to the Union and State Governments on matters pertaining to Coastal regulation Zone (CRZ), Integrated Coastal Zone Management (ICZM) and Marine Spatial Planning.
- **Knowledge and Capacity Enhancement:** Strengthen national capacities through dissemination of knowledge, training, and strategic partnerships aimed at improving coastal governance and management practices.

### b. Important activities undertaken

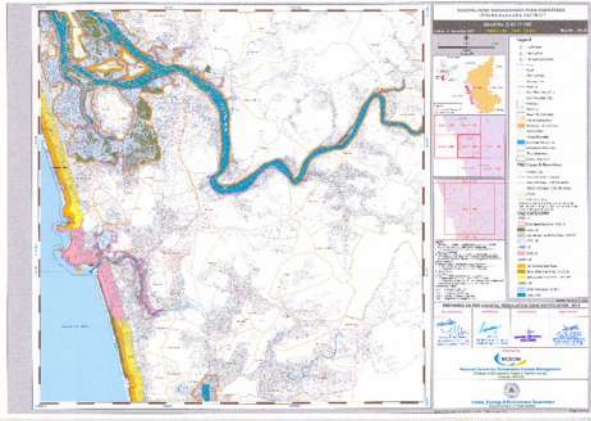
#### (i) Contribution to National Coastal Mission

NCSCM developed the key components of the National Coastal Mission during 2024–25 by formulating a series of strategic concept notes and preliminary project proposals aligned with national coastal priorities. Building on detailed assessments of ecological and environmental baselines, shoreline processes, and climate vulnerability, NCSCM identified critical intervention zones requiring targeted management and restoration measures. Using interdisciplinary scientific approaches, including ecosystem characteristics, socio-economic assessments, geospatial analyses, and risk-informed planning, the institute prepared concept notes and draft project structures designed to guide the development of Detailed Project Reports (DPRs). These formulations emphasised ecological sustainability, climate adaptation, and community resilience as core principles. Through these technical contributions and evidence-driven recommendations, NCSCM supported the Ministry in advancing mission objectives focused on ecosystem conservation, habitat restoration, and the design of climate-resilient coastal infrastructure. The institution's work significantly strengthened the scientific foundation for mission-oriented initiatives aimed at enhancing the long-term resilience of India's coastal systems and communities.

#### (ii) Coastal Zone Management Plan (CZMP), ICRZ, IIMP and CRZ Maps

Over 720 Coastal Zone Management Plans (CZMP) and Coastal Regulation Zone (CRZ) maps (including ICRZ and IIMP maps) were generated by NCSCM for various coastal States and Union Territories, enabling the effective operationalisation of the CRZ Notifications, 2011 and 2019. These outputs were derived through high-resolution satellite imagery interpretation, shoreline change modelling, detailed ecological characterisation, and extensive field validation, ensuring high spatial

accuracy and regulatory conformity. The maps serve as critical decision-support tools for coastal governance, regulatory appraisal, and state-level coastal planning processes.



**Approved Coastal Zone Management Plan Map of the coast of Karnataka**

NCSCM prepared the Island Coastal Regulation Zone maps and the Integrated Island Management Plans (IIMPs) for several priority islands of the Union Territory of Lakshadweep, and the Andaman and Nicobar Islands, in alignment with the Island Coastal Regulation Zone (ICRZ) Notification, 2019. The plans integrate ecological baselines, geomorphological analyses, land use and land cover analysis, carrying capacity assessments, and risk-sensitive land-use frameworks to guide sustainable development. These IIMPs provide a comprehensive scientific foundation for climate-resilient infrastructure planning, habitat conservation, and long-term management of the fragile island ecosystems.

### (iii) Mapping of Invasive Charru Mussel

NCSCM and the Tamil Nadu Wetland Authority, jointly undertook a systematic assessment of the invasive Charru Mussel (*Mytella strigata*) within the Ennore Creek ecosystem,

Tamil Nadu. The study involved high-resolution spatial mapping of the species' distribution using geospatial tools, field-based density estimation, and habitat characterisation to evaluate the extent of colonisation and associated ecological alterations.

The assessment provided critical insights into the invasive dynamics of *M. strigata*, including its impacts on native benthic communities, habitat structure, and fisheries productivity. The findings contribute to the formulation of evidence-based management strategies aimed at controlling the spread of the species, safeguarding native biodiversity, and maintaining the ecological functioning and resilience of the Ennore Creek wetland system.

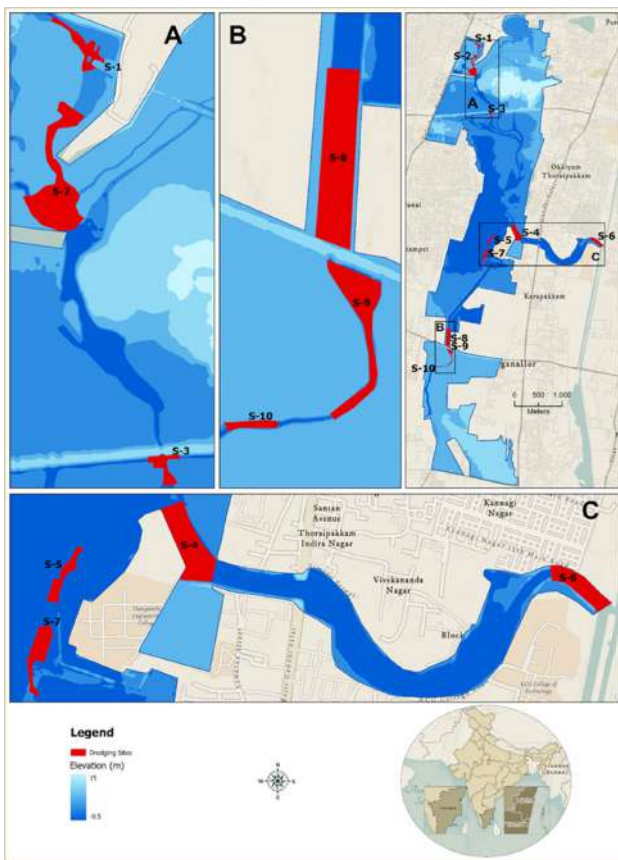


**Map of key infestation hotspots of Charru mussel along Ennore Creek and Pulicat Lake**

### (iv) Integrated Management Plan for Pallikaranai Ramsar Site, Tamil Nadu

NCSCM is developing an Integrated Management Plan for the Pallikaranai Ramsar Site, a critical urban wetland within the Chennai metropolitan region, for the Tamil Nadu Wetlands Authority. The plan is being formulated based on comprehensive ecological assessments, invasive species mapping, hydrological analyses,

and habitat characterisation to guide targeted restoration and management interventions. A key component of the IMP is the detailed bathymetric assessment of the wetland, undertaken to achieve a precise understanding of hydrological flows, water retention dynamics, and the functioning of inlet and outlet channels. This information is essential for designing effective hydrological restoration measures and improving overall wetland resilience.



**Identified Potential sites for dredging in Pallikarandai Wetland to restore hydrology**

The management framework further emphasises systematic control of invasive flora, re-establishment of native wetland vegetation, and restoration of natural hydrological regimes to enhance habitat connectivity, support biodiversity, reduce urban flood risks, and ensure the long-term ecological stability of this high-value

urban wetland ecosystem.

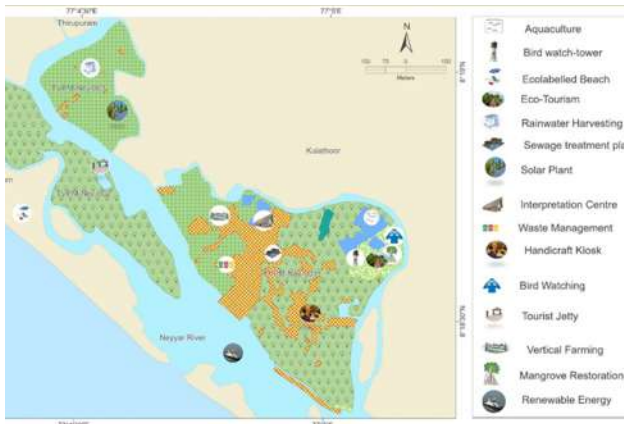
(v) **Environmental and ecological impact assessment of Shipwreck off the Kerala Coast**

A comprehensive environmental and ecological impact assessment was undertaken jointly with the Regional Office of the Central Pollution Control Board and the Government of Kerala for two major maritime incidents off the Kerala coast: the MSC Elsa III and the shipwreck of Wan Hai 503, which caught fire on 9 June 2025 following an onboard container explosion. The assessment applied an integrated suite of scientific approaches, including oceanographic modelling, pollutant fate and transport analysis, benthic and pelagic biodiversity evaluations, and geospatial mapping of debris dispersion patterns. The release, distribution, and persistence of contaminants such as hydrocarbons, combustion residues, and hazardous cargo materials within the marine environment were examined and assessed their potential impacts on sensitive ecological receptors. These included planktonic communities, benthic substrates, coral assemblages, coastal wetlands, and nearshore fisheries. The outcomes of this assessment provided a scientific basis for targeted pollution response measures, ecological restoration strategies, and long-term monitoring protocols to support coastal environmental management and decision-making.

(vi) **Integrated Island Management Plan (IIMP) for the backwater islands of Kerala**

The Integrated Island Management Plan (IIMP) for the backwater islands of Kerala, developed by NCSCM, contains detailed geospatial analyses and field-based ecological assessments. The planning process includes precise delineation of the High Tide Line (HTL) and Low Tide Line (LTL) using high-resolution satellite data supported by ground verification, land-

use/land-cover assessments, and mapping of Ecologically Sensitive Areas (ESAs).



The IIMPs are prepared as per the Island Coastal Regulation Zone (ICRZ) Notification, 2019. The plan adopts an integrated ecosystem-based approach to guide sustainable development of the backwater island systems. Key components include habitat conservation and ecological restoration, enhancement of disaster resilience, incorporation of climate adaptation measures, livelihood improvement for local communities, and the promotion of low-impact development practices. The framework places strong emphasis on community participation and resource stewardship, aiming to safeguard ecological integrity while facilitating balanced socio-economic growth within Kerala's fragile and highly productive island ecosystems.

## (vii) Holistic Conservation and Integrated Management Plan of Wetlands

### (a) Knowledge Networks and National Wetland Assessments

As a primary knowledge partner, NCSCM is developing national-scale knowledge networks and undertaking systematic ecological assessments of wetlands across India under the project "Holistic Conservation and Integrated Management Plan of Wetlands." The initiative, funded by the Wetlands Division of the Ministry of Environment, Forest and Cli-

mate Change (MoEF&CC), supports the creation of harmonised datasets, wetland typologies, and management frameworks aimed at strengthening evidence-based wetland governance at both national and state levels.

### (b) Assessment of Ramsar Wetlands in North-east India

Under the Holistic Conservation and Integrated Management Plan of Wetlands (2021–2026), NCSCM is conducting comprehensive assessments of five Ramsar sites in Northeast India. Activities include field-based surveys, ecological characterisation, documentation of biodiversity and site-specific threats, and the estimation of sediment organic carbon stocks across 46 Ramsar wetlands of India, including those in Mizoram, Assam, Manipur, and Tripura. These assessments contribute to the understanding of carbon sequestration potential, biogeochemical processes, and ecosystem functioning in wetland systems across diverse eco-regions.



Assessment of carbon in High altitude wetlands and Peatlands of India

### (c) Peatland Research

NCSCM's peatland research focuses on advancing the scientific understanding of carbon-rich high-altitude wetland systems in India. The institute is undertaking detailed

field assessments to quantify carbon content in wetland soils, enabling the mapping of peatland distribution and extent using high-resolution geospatial datasets. These assessments also encompass peat depth and characterization, organic carbon stocks, vegetation composition, hydrological regimes, and associated biogeochemical processes. Through integrated field surveys, laboratory analyses, and geospatial modelling, the research quantifies the carbon sequestration potential of peatlands, evaluates their vulnerability to climatic and anthropogenic pressures, and develops evidence-based peatland health card for long-term conservation of this limited and fragile ecosystem. This work strengthens the national knowledge on peatland ecology, biogeochemistry, hydrology and supports peatland conservation. Through this research, the significant carbon storage potential of peatlands is being quantified, highlighting their critical role in mitigating climate change by retaining long-term organic carbon and reducing atmospheric greenhouse gas emissions.



#### (d) Carrying Capacity Assessments

Carrying capacity evaluations were undertaken for five Ramsar wetlands in Himachal Pradesh and Ladakh to determine sustainable thresholds for tourism and associated activities. The study highlights the necessity of reg-

ulating visitor numbers and vehicular movement to minimise ecological disturbance in these fragile high-altitude and mid-hill ecosystems. Recommendations include the establishment of designated trekking corridors, demarcated camping zones, ecologically sensitive buffer areas, and the enforcement of seasonal access restrictions to protect nesting habitats, riparian vegetation, and the hydrological integrity of these wetlands.

#### (e) Nature-Based Solutions and Pollution Management

To strengthen ecosystem resilience, the study proposes decentralised, nature-based wastewater management solutions such as DEWATS, constructed wetlands, and eco-sanitation systems. Additional measures include implementation of colour-coded waste segregation systems, reverse vending technologies, and Source-to-Lake plastic management frameworks to reduce pollution loads. The framework emphasises community stewardship, youth-led eco-tourism initiatives, and enhanced cross-sectoral coordination as essential components for ensuring long-term ecological sustainability while enabling responsible development in the Ramsar wetlands of Himachal Pradesh and Ladakh.

#### (viii) Preparation of compendium of 75 prioritized wetlands and Wetland ecosystem health report cards for potential wetlands of international significance

Extensive ecological surveys were conducted across selected wetlands in Tamil Nadu to assess hydrology, species diversity, habitat status, land-use influences, and socio-ecological linkages. The work comprises two major components:

- (i) preparation of a scientific compendium for 75 prioritized wetlands, integrating ecological baselines, hydrological profiles, and management considerations; and
- (ii) development of Wetland Ecosystem Health Report Cards for wetlands identified as having potential international significance.

These report cards synthesise key ecological indicators—such as water quality, habitat integrity, species assemblages, and anthropogenic pressures—into an evidence-based evaluation framework to guide monitoring, adaptive management, and policy decision-making for long-term wetland conservation.

**(ix) Demarcation of Wetland Boundaries and Preparation of Brief Documents of Wetlands of Maharashtra**

The Government of Maharashtra has assigned NCSCM to undertake the project “Preparation of Wetland Maps and Brief Documents along with Assessment of Tourism Potential of Wetlands for the State of Maharashtra.” In this landmark work, NCSCM carried out the delineation of wetland boundaries in accordance with the Guidelines for implementing the Wetlands (Conservation and Management) Rules, 2017, using high-resolution satellite imagery at a 1:4000 scale. Wetlands and wetland complexes were mapped using GIS, with boundaries defined based on inundation patterns and vegetation signatures, and subsequently validated through extensive ground-truthing surveys. To streamline field verification, a customised mobile-based data collection system (ArcGIS Survey123) was deployed, enabling real-time geo-referenced observations at each site. Boundary conditions as of April 2024 were then compared with the 2021 SAC baseline to assess spatial and hydrological changes over time.

In parallel, also based on the extensive field

surveys, NCSCM is preparing Brief Documents for all 25,935 wetlands of Maharashtra, following the Wetland Rules 2017 and associated implementation Guidelines. As required under Rule 7, detailed site-level assessments were undertaken to scientifically characterise each wetland’s geographical extent, hydrological regime, ecological health, socio-economic dependencies (including legally recognised rights), and the regulatory categorisation of activities.

To support monitoring and spatial decision-making, NCSCM has developed a dynamic Web Map-based Wetland Dashboard that provides real-time updates from ground surveys and spatial layers for all concerned authorities. The dashboard serves as an interactive platform for the Maharashtra State Wetland Authority to visualise, track, and assess field-validation progress with high spatial accuracy. Together, these efforts create a robust scientific foundation for wetland documentation, governance, and management across Maharashtra, advancing long-term conservation and informed policy planning.

**(x) Enhancing Climate Resilience of India’s Coastal Communities, Green Climate Fund (GCF)**

NCSCM is actively engaged in the Green Climate Fund (GCF) project titled “Enhancing Climate Resilience of India’s Coastal Communities,” implemented by the Ministry of Environment, Forest and Climate Change. The initiative focuses on strengthening the adaptive capacity and climate resilience of vulnerable coastal populations in the States of Andhra Pradesh, Odisha, and Maharashtra, where exposure to climate-induced hazards is particularly acute. In this context, NCSCM has completed physical vulnerability assessments for three coastal landscapes by integrating

ecosystem-based and community-centric approaches into a comprehensive coastal risk framework. The assessments account for the high susceptibility of India's coastline to climate change impacts and evaluate physical, ecological, and social vulnerabilities to derive Cumulative Coastal Vulnerability indices. This integrated analysis supports evidence-based planning, targeted climate adaptation measures, and ecosystem-enhancing interventions aimed at reducing long-term risks for coastal communities.

**(xi) State Action Plan on Climate Change of Lakshadweep Islands**

The draft Lakshadweep State Action Plan on Climate Change (LAKSAPCC) has been prepared with a focus on advancing sustainable development pathways for the Union Territory under multiple projected climate futures, including IPCC Representative Concentration Pathway (RCP) scenarios. Most importantly, as a small island system, climate change scenarios were developed under all RCP pathways, with predictions modelled up to the year 2100 to capture long-term climatic shifts and their implications for the archipelago's fragile ecological and socio-economic systems. The plan integrates climate vulnerability assessments, sectoral impact analyses, and ecosystem-based adaptation strategies tailored to the unique geomorphological and ecological sensitivities of Lakshadweep. Emphasis is placed on enhancing freshwater security, safeguarding coastal and marine ecosystems, strengthening disaster risk reduction, and promoting climate-resilient livelihoods, thereby providing a comprehensive framework to guide long-term climate action in these fragile islands.

**(xii) Development of Sustainable Beaches**

Scientific, environmental and safety evaluations along with detailed planning exercises were carried out to facilitate the development of

environmentally sustainable and internationally certified beaches. NCSCM prepared 10 Detailed Project Reports (DPRs) and conducted site-specific assessments for priority beaches, including Marina Beach (Marina Beach in Chennai is considered the world's second longest natural urban beach), Thiruvanniyur, Palavakkam, Uthandi, among other beaches in Tamil Nadu. The work involved comprehensive analysis of the distance from the High Tide Line, beach morphology, water quality, bathymetry and coastal processes, safety and service infrastructure, and ecosystem management requirements in alignment with Blue Flag certification criteria. These technically robust DPRs and assessments provided coastal authorities and State Government with a strong scientific basis for implementing sustainable beach management practices that enhance environmental quality, visitor safety, and long-term coastal resilience.

**c. NIRANTAR Vertical IV on Climate Change Support**

NCSCM is one of the institutions under Vertical IV – Climate Change Support of the NIRANTAR programme, working in close partnership with the GB Pant National Institute of Himalayan Environment (GBPNIHE), Almora. Together, the institutions are jointly implementing a project on high-altitude wetlands, undertaking coordinated field campaigns, shared scientific assessments, and a series of wetland awareness programmes aimed at fostering a deeper mutual understanding of both coastal and Himalayan ecosystems, while emphasising how climate change acts as a central driver affecting these extreme and highly sensitive environments.

In 2025, NCSCM advanced its contribution to this national initiative with a focused assessment of carbon dynamics in fragile Himalayan wetland systems, particularly the peatlands of the North and Northeast. The institute conducted detailed field

surveys and laboratory analyses to quantify soil organic carbon pools, greenhouse gas fluxes, and nutrient interactions across representative wetlands in Sikkim and Ladakh. By integrating biogeochemical measurements with spatial datasets and climatic variables, the assessment enhances understanding of carbon storage potential, decomposition processes, and flux patterns in these cold, low-oxygen ecosystems. The outcomes are expected to inform national climate policy by underscoring the importance of high-altitude wetlands as significant yet highly vulnerable carbon reservoirs within India's broader climate mitigation and carbon management framework.

#### **d. Progress / Innovations**

##### **Holistic Management of High-Altitude Ramsar Wetlands:**

- Prepared comprehensive ecological and hydrological management reports for five Ramsar sites- three in Himachal Pradesh and two in Ladakh- to safeguard the fragile high-altitude wetland ecosystems through integrated conservation strategies.

##### **Integrated Island Management in Lakshadweep:**

- Integrated Island Management Plans (IIMPs) for twenty three (23) islands, incorporating ecological baselines, risk-sensitive land-use frameworks, climate adaptation pathways, and sustainable development strategies have been completed.

##### **Shoreline Management and Coastal Governance:**

- Developed Shoreline Management Plans (SMPs) for the Karnataka coast, with ongoing work for Maharashtra, Daman, and Diu. Conducted shoreline change assessments for Goa and Kerala, providing essential datasets for coastal regulation and hazard mitigation.

##### **Eco-labelled Sustainable Beaches (Blue**

##### **Flag):**

- Prepared Detailed Project Reports (DPRs) for five major beaches of Tamil Nadu- including Marina, Ariyaman, Kameshwaram, and Silver Beach, aligned with international Blue Flag certification standards on water quality, environmental education, ecosystem management, and safety infrastructure.

##### **NATCOM:**

- Along with CMFRI, contributed to India's First Biennial Transparency Report (BTR) by drafting the section on coastal ecosystems, integrating scientific data on carbon dynamics, ecosystem services, and climate impacts.

##### **Strategic Scientific Partnerships:**

- NCSCM provided scientific and technical expertise to ISRO and the Indian Coast Guard on environmental safeguards, sustainable coastal development, and ecosystem-sensitive operational planning for their various proposed projects of national importance.

##### **Strengthening Institutional Quality and Accreditation:**

Achieved multiple national certifications, including:

- ISO 9001:2015, ISO 45001, ISO/IEC 17025:2017 (NABL), NABET-QCI for Sector 33 (Ports/ Harbours/ Nreakwaters and Dredging). A few Scientists of NCSCM are designated Government Analysts for Environmental Laboratories, enhancing scientific credibility and operational excellence.

#### **e. Capacity Building and Training Activities of NCSCM**

##### **(1) IFS Officers Training Programme:**

NCSCM organised two specialised national training programmes on "Coral Reefs and Sea-

grass: Ecology, Conservation and Management” for Indian Forest Service (IFS) officers in January and February 2025, aimed at strengthening technical and managerial capacities for coastal and marine ecosystem conservation. MoEF&CC nominated 37 IFS officers, of whom 27 actively participated in the trainings held in the Lakshadweep Islands (13–17 January 2025) and at Rameswaram–Ramanathapuram (17–21 February 2025). Through scientific lectures, expert-led discussions, snorkel and diving-based field observations, habitat monitoring demonstrations, and restoration technique overviews, officers gained hands-on exposure to the ecological functioning, biodiversity significance, and conservation challenges of coral reefs and seagrass meadows. These programmes provided a robust platform to deepen scientific understanding and enhance leadership capacities for safeguarding ecosystems that underpin India’s coastal resilience and marine biodiversity.



## (2) Mission Karmayogi initiatives of NCSCM

Under the Ministry of Environment, Forest and Climate Change, NCSCM is actively implementing Mission Karmayogi to strengthen institutional competencies through structured and continuous capacity-building interventions. The Centre has completed a comprehensive Capacity Need Assessment (CNA) and is cur-

rently developing its Annual Capacity Building Plan (CBP) to align training priorities with functional requirements and emerging environmental management challenges. A dedicated Capacity Building Unit (CBU) has been established at NCSCM to coordinate with national training institutions and oversee the design, delivery, and monitoring of learning programmes. These efforts collectively support a sustained culture of professional development, knowledge enhancement, and performance improvement in line with Mission Karmayogi’s competency-driven framework.



## f. Events participated/organized

NCSCM has been actively involved in several key initiatives and events that align with its commitment to environmental sustainability and coastal management, as follows:

### (a) Beach Cleaning during Seva Parv 2025

In the course of Seva Parv 2025 (17 September–2 October), NCSCM undertook a key coordinating function in organising and enabling large-scale beach-cleaning drives across the Indian coast under the umbrella of the “Seva Parv + International Coastal Cleanup Day 2025” initiative. The Centre provided technical guidance to coastal local bodies, mobilised volunteer participation, and systematically documented clean-up activities across multiple states. Through its dedicated beach-cleanup portal, NCSCM recorded numerous drives conducted on 20 September 2025, where coordinated outreach efforts enabled com-

munities to collect, segregate, and responsibly dispose of marine litter in collaboration with district administrations.



### (b) International Day of Yoga (IDY 2025) - 21st June 2025

NCSCM observed the 11th International Day of Yoga (IDY 2025) at Kovalam Beach, in collaboration with faculty and students of Sathyabama University, Chennai. The sunrise yoga session brought together participants in a serene coastal setting, promoting physical well-being and mindfulness while underscoring the intrinsic link between healthy lifestyles and a healthy environment. Through this initiative, NCSCM highlighted the importance of integrating personal wellness with environmental stewardship and encouraged youth engagement in appreciating and protecting India's coastal ecosystems.



### g. Continuing committees/Commissions

The Acting Director of NCSCM serves as an ex-officio member on several national and international committees, contributing strategic guidance to

high-level environmental and coastal governance platforms. Scientists from NCSCM represent the Centre in multiple National Green Tribunal (NGT)-related expert groups and State-level technical committees, providing scientific assessments and technical inputs to regulatory authorities.

NCSCM scientists also actively contribute to the Bureau of Indian Standards (BIS) working groups, supporting the development of standards and guidelines for the sustainable management of beaches and coastal environments in India. In addition, they serve on a range of technical and scientific committees related to coastal ecology, climate resilience, marine biodiversity, pollution management, and sustainable development, offering evidence-based recommendations and expert reviews. Through these roles, NCSCM strengthens science-driven decision-making, enhances environmental governance, and ensures that national and state policies are anchored in the best available scientific knowledge.

### h. List of major publications

A total of 15 scientific publications in peer reviewed and high impact factor journals and 3 chapters in Books- were published in 2025 so far. Several manuscripts are under in the final stages of consideration and/ or acceptance for publication.

NCSCM has developed a suite of specialised knowledge products—including the Survey Manual for Coral Reef and Seagrass Ecosystems, the Protocol for Assessment of Mangrove Forest Structure, the Salt Marsh Factsheet, and the Wetland Health Report Cards for seven Ramsar sites of Tamil Nadu, to support systematic ecological assessments and standardised data collection across coastal and marine habitats. These manuals and tools form an essential foundation for strengthening scientific capacity, ensuring methodological consistency, and promoting best practices in ecosystem monitoring.

Complementing these knowledge products, NCSCM's capacity-building programmes for technical education departments and research institutions have significantly enhanced understanding of coastal ecosystem management, sustainable development, and marine conservation. Through expert-led lectures, interactive sessions, and hands-on learning, participants gained deeper insights into coastal resource governance, environmental safeguards, and the application of scientific approaches to address contemporary challenges, including those arising from climate change. Together, these initiatives reinforce NCSCM's commitment to developing nationally relevant scientific skills and fostering evidence-based stewardship of India's coastal and marine environments.

### (iii) Capacity Building Programmes



#### (i) Survey Manual for Coral Reef & Seagrass Ecosystem, Protocol for Assessment of Mangrove Forest Structure and Salt Marsh Fact-sheet



#### (ii) Wetland Health Report Card for Seven Ramsar Sites of Tamil Nadu



# Chapter 6

## CONSERVATION – FOREST



## 6.1 Forest Conservation

### 1. Name of the Division: Forest Conservation (FC) Division

#### a. Introduction, objectives and functions

The Forest Conservation Division of the Ministry of Environment, Forest and Climate Change (MoEF&CC) is entrusted with the implementation of the Van (Sanrakshan Evam Samvardhan) Adhiniyam, 1980. The Adhiniyam came into force on 25th October, 1980 and has since been amended in 1988 and 2023.

In accordance with the provisions of the Adhiniyam, prior approval of the Central Government is mandatory for : (i) de-reservation of forest land; (ii) use of forest land for non-forest purposes; (iii) assignment of forest land by way of lease or otherwise; and (iv) clear felling of naturally grown trees for the purpose of reforestation.

The Adhiniyam is regulatory in nature and is aimed at strengthening ecological security, ensuring conservation of forests, and promoting the sustainable management of forest resources in the country. The scope of the Act was further strengthened by the Forest (Conservation) Amendment Act, 2023, enacted on 04.08.2023, with the objective of enhancing forest management alongside conservation, clarifying its applicability across different categories of land, encouraging private plantations, and aligning its provisions with the evolving ecological, social, and environmental changes witnessed over the past four decades.

To implement the provisions of the Adhiniyam, Rules and Guidelines have been issued by the Central Government. The Van (Sanrakshan Evam Samvardhan) Rules, 2023 have been notified by the Central Government to operationalize the provisions of the Van (Sanrakshan Evam Samvardhan) Adhiniyam, 1980. These Rules lay down the proce-

cedure for approval of diversion of forest land for non-forest purposes, implementation of compensatory afforestation, monitoring, and enforcement mechanisms in accordance with the provisions of the Adhiniyam.

Proposals received from the States and Union Territories for diversion of forest land are scrutinized by the Forest Conservation Division and thereafter examined by the Advisory Committee constituted under Section 3 of the Adhiniyam. Each proposal is analyzed with due diligence, and diversion of forest land is permitted only in unavoidable circumstances, and then only to the barest minimum extent required for non-forestry purposes.

Based on the recommendations of the Advisory Committee, the Central Government accords prior approval subject to conditions including payment of Net Present Value (NPV), undertaking compensatory afforestation over non-forest land or degraded forest land, and implementation of need-based mitigation measures. Such measures may include Catchment Area Treatment (CAT) Plans, Wildlife Management Plans, Soil and Moisture Conservation works, and maintenance of safety zones, all of which are stipulated in the approvals granted by the Central Government.

During the year of 2025 (From 01.01.2025 to 28.12.2025), 104 proposals involving diversion of 12,649.57 ha of forest land were granted approval by the Ministry under the Van (Sanrakshan Evam Samvardhan) Adhiniyam, 1980. Against this approval, compensatory afforestation has been stipulated over an 13,768.35 ha of land comprising of 8,223.13 ha of degraded forest land and 5545.22 ha of non-forest land.

#### b. Key legislative and Policy Reforms carried out in 2025 under the Van (Sanrakshan Evam Samvardhan) Adhiniyam, 1980

The Van Sanrakshan Evam Samvardhan) Amend-

ment Rues, 2025: The Van (Sanrakshashn Evam Samvardhan) Amendment Rules, 2025 were notified vide GSR no. 593(E) dated 31.08.2025 to streamline the approval process as under:

- i. Expanding the scope of creation of land banks by the States / Union territories Administrations: Enabling provisions were provided to expand the scope of creation of land banks in degraded forest lands of up to 0.4 canopy density, Government lands, lands recorded as forest in Government records by the State Govt. to ensure the ready availability of lands for raising compensatory afforestation.
- ii. Use of afforestation raised under Central Government schemes such as Green Credit Programme, for meeting Compensatory Afforestation requirements: Afforestation raised in the degraded forestlands, government lands or non-forest lands by various entities under various schemes of Central Government can be used to meet the requirements of raising compensatory afforestation as admissible and subject to terms and conditions to be stipulated by the Central Government for this purpose.
- iii. Allowing CA over degraded forest land in respect of mining of critical & Strategic minerals, deep seated and atomic minerals: To strengthen the availability of critical minerals in the country, the approval process has been streamlined for mining of critical & strategic, deep seated and atomic minerals by providing them dispensation of raising CA over degraded forest land as under:
  - Double the extent of forest land diverted, for mining of critical & strategic and atomic minerals.
  - Three times the extent of forest area being diverted, for mining of Deep Seated Minerals which are not included in the list of critical & strategic minerals
- iv. Granting of Working Permission and Final / Stage-II approval on the basis of transfer and

mutation of compensatory afforestation land: To enable agencies to submit the compliance report and obtain timely final approval, provisions have been made enabling the Central Government and State Government to grant Stage-II approval and Working Permission, respectively even after transfer and mutation of non-forest land proposed for CA without insisting for notification of the CA land.

- v. Notification of Compensatory Afforestation land by PCCF & HoFF of the State: To curtail delay due to lengthy notification process, enabling provisions have been provided for the States / UTs to authorize the PCCF& HoFF to issue notification under the Indian Forest Act, 1927.
- vi. Increasing the validity of in-principle approval granted under the Van (Sarnrakshashn Evam Samvardhan) Adhiniyam, 1980 from 2 years to 5 years: As per erstwhile provisions, in-principle approval granted under the Adhiniyam becomes null and void after the expiry of period of two years. Reform provided that in cases where the user agency is unable to submit compliance report of in-principle approval within a period of five years, the validity of in-principle approval can be extended by the Central Government for a such period as the Central Government may deem fit.
- vii. Streamlining the provisions of CA for underground works and underground mining: No compensatory afforestation shall be applicable in respect of underground mining and underground works involved in the various developmental projects without surface rights.
- viii. Allowing submission of proposal of national importance and public utility in offline mode: Enabling provisions provided for the user agencies to submit their proposals related to defence, strategic and national importance or exceptional cases related to public interest or emergent nature in offline mode for prior approval under the Van (Sanrakshashn Evam Samvardhan) Adhiniyam, 1980.

### c. Notification of Van (Sanrakshan Evam Samvardhan) Second Amendment Rules, 2023:

The Van (Sanrakshan Evam Samvardhan) Rules, 2023 were amended on 29.11.2025 enabling the Nodal Officer of the State to assist and facilitate the user agency in the identification of degraded forest land for compensatory afforestation.

### d. Policy Reforms undertaken by issuing Guidelines and Clarifications:

#### i. Survey and Explorations in the forest areas:

Surveys and Exploratory Drilling have been exempted from the prior approval of the Central Government under the Van (Sanrakshan Evam Samvardhan) Adhiniyam, 1980 subject to terms and conditions specified by the Central Government. Guidelines have been issued streamlining the approval process of exempted category of survey and exploration in forest areas as under:

- Approval is to be given in one go by the Divisional Forest Officer within 45 days
- Only cost of NPV is to be charged only in those proposals involving felling of trees while no NPV or compensatory afforestation is to be charged in proposals involving no felling of trees.
- No NPV and CA is to be charged in proposals involving pitting and trenching
- User Agency allowed to collect samples from the forest areas Form-C for submitting application for survey and exploration has been simplified.
- Permission for survey and exploration in respect of already broken up forest land for which approval under the Adhiniyam under section 2(1)(ii) for mining operations already granted by the Central Government can be given by the State Forest Department in off-line mode.
- Number of bore holes exempted from the purview of the Adhiniyam for undertaking

survey and exploration in forest areas have been increased to:

- 62 bore holes of up to 6 inch diameter per 10 sq km subject to a maximum of 25 bore-holes per sq km for bedded Stratiform and tabular deposits.
  - 80 bore holes of up to 6 inch diameter per 10 sq km subject to a maximum of 25 bore-holes per sq km for Lenticular ore bodies of all dimensions.
  - The Nodal Officers (FCA) of the State has been authorized to forward the survey and exploration proposals which are not covered under exemption, directly to the Regional Office or the MoEF&CC.
- #### ii. Compensatory Afforestation:
- Enabling afforestation undertaken by private and public entities under Green Credit Programme (GCP) to be used for compensatory afforestation: Guidelines issued under Rule 14(4)(d) of the Van (Sanrakshan Evam Samvardhan) Rules, 2023 enabling the use of afforestation raised under the Green Credit Programme by the various agencies, including private entities, to meet the requirement of compensatory afforestation as under:
- Afforestation raised under GCP can be exchanged for compensatory afforestation as admissible under Rule 13 of the Van (Sanrakshan Evam Samvardhan) Rules, 2023.
  - Afforestation raised under GCP by the agencies, which are not covered under Rule 13 to raise CA over degraded forest land, can be exchanged for compensatory afforestation, provided they are provided four time the forest area proposed for diversion.
  - Meeting the requirement of plantation of trees to fulfil the obligations in compliance of the approval of the project.
- #### iii. Strengthening of Nodal Officer of the State to create land banks for compensatory afforestation:
- The Ministry vide its guidelines dated 27.09.2025 has advised all States Gov-

ernments and Union territory Administration to set up a dedicated Project Management Unit (PMU) under the Nodal Officer. The PMU will assist in identifying land parcels for the creation of land banks, support User Agencies in locating degraded forest lands for compensatory afforestation, and provide guidance in the preparation and submission of proposals. The financial requirements for establishing the PMU may be met from the State CAMPA funds.

- iv. **Involvement of local Forest Department in the joint field verification at the time of land acquisition to ascertain the involvement of forest lands in the projects:** To prevent delays in the project execution due to ambiguity in the status of forest land, it has been clarified that for any infrastructure or development project involving land acquisition, the responsible agency must share a copy of the notification with the local Forest Department, ensure joint field verification with Forest and revenue officials to identify forest land early, and, if such land is found, the Project Proponent shall simultaneously initiate its diversion process through the PARIVESH portal as per prescribed procedures.
- v. **Joint Surveys by Revenue, Forest and Mining Departments in respect of proposals pertaining to mining leases:** Currently, multiple agencies conduct separate surveys of forest areas proposed for diversion in mining leases, leading to duplication, extra costs, and delays in statutory processes. To streamline procedures, it has been clarified that joint surveys should be undertaken either at the pre-auction or post-auction stage by teams comprising representatives of the Revenue, Forest, and Mining Departments. The State Mining Department to coordinate the process.

## 6.2 Compensatory Afforestation Fund Management and Planning Authority (CAMPA)

### 1. National Compensatory Afforestation Fund Management and Planning Authority

#### a. Introduction

The National Compensatory Afforestation Fund Management and Planning Authority (National Authority, CAMPA), constituted under the Compensatory Afforestation Fund Act, 2016, functions as a statutory body responsible for overseeing the planning, management, and utilisation of the National Compensatory Afforestation Fund. This fund comprises compensatory levies collected for diversion of forest land under the Van (Sanrakshan Evam Samvardhan) Adhiniyam, 1980. Operating through a Governing Body, an Executive Committee, and a Monitoring Group, the Authority plays a crucial role in promoting ecological restoration and ensuring sustainable forest management across the country.

#### Objectives

The principal objectives of National CAMPA are centred around ensuring the efficient utilisation of the National Compensatory Afforestation Fund. These include compensating for the loss of forest land and associated ecosystem services due to non-forestry use, supporting afforestation and regeneration of degraded forests, and enhancing ecosystem services at the national level. National CAMPA also provides support to States and Union Territories in meeting mandatory requirements related to compensatory afforestation and forest conservation.

#### Functions

National CAMPA undertakes a wide range of functions essential for effective governance of compensatory afforestation activities. These include managing the National Fund, meeting recurring and non-recurring administrative expenditures, and

approving Annual Plans of Operation (APOs) submitted by States and UTs. It also provides technical guidance on afforestation, forest protection, wildlife habitat improvement, and assisted natural regeneration. Additionally, the Authority funds and monitors specialised schemes, pilot projects, and capacity-building programmes approved by its Governing Body.

## **b. Important Activities Undertaken**

During FY 2025–26, National CAMPA introduced several key initiatives aimed at strengthening transparency and integrating technology-driven governance.

### **1. Management Information System (MIS) Portal for National Fund Schemes:**

A comprehensive MIS Portal was operationalised to streamline online submission, appraisal, approval, fund flow, and real-time monitoring for schemes supported under the National Fund. This has significantly improved audit readiness, transparency, and timely decision-making.

### **2. Two-Tier Monitoring & Evaluation Framework:**

A strengthened two-level M&E system was introduced, integrating pre-approval checks through the Digital APO portal and post-approval monitoring via a dedicated platform. Use of satellite data, drones, and GIS tools has enhanced evidence-based decision-making and objective assessment of CAMPA-funded activities.

### **3. Harit-SANKALP Portal:**

This digital platform was launched to build a structured system for nursery accreditation and planting material traceability. Through unique IDs and QR codes assigned to nurseries and seed sources, the platform enhances quality control, planning, and transparency in af-

orestation initiatives.

### **4. Geo-referencing of Forest Lands:**

In compliance with the Supreme Court's La-farge Umiam judgment, National CAMPA advanced DGPS/CORS-based geo-referencing of forest boundaries. This ensures legally robust GIS-linked datasets that support transparent decision-making for forest diversion and strengthen long-term governance.

### **5. Digital Annual Plan of Operations (Digital APO):**

A major reform during FY 2025–26 involved the adoption of Digital APO through PARIVESH 2.0. This system allows end-to-end digital preparation, scrutiny, and approval of APOs using integrated clearance data and geospatial layers. Widespread adoption by States and UTs has facilitated transparent and time-bound approvals for FY 2026-27.

## **c. Achievements**

1. Compensatory afforestation across 10.95 lakh hectares has been achieved till March 2024. During FY 2024-25, user agencies deposited Rs. 8319.32 crore under the Van (Sanrakshan Evam Samvardhan) Adhiniyam, 1980.
2. Funds from ad-hoc CAMPA worth Rs. 54,685.00 crore till 31.03.2018 and Rs. 43,211.13 crore from 01.04.2018 to 31.03.2025 were credited, bringing the total receipts to Rs. 97,896.13 crore.
3. Project-wise vetted reconciled compensatory afforestation data from Regional Offices (IROs) has been received from eleven States/UTs, namely Andhra Pradesh, Rajasthan, Jammu & Kashmir, Madhya Pradesh, Manipur, Meghalaya, Mizoram, Odisha, Telangana, Tripura, and Uttar Pradesh.
4. The National Authority sanctioned Rs. 432.05 crore for the CA physical target of 35,567.84 hectares for FY 2024-25. For FY 2024-25, the

total sanctioned APOs of 32 States/UTs  
amount to Rs. 7555.24 crore.

(Area in Ha.)

**Status of Compensatory Afforestation since 1980 till 31st March, 2025**

S. No.	State/UT	Forest Area Diverted under Van (Sanrakshan Evam Samvardhan) Adhinyam, 1980 (as on 31.03.2025)	Proposed/mandated CA to be carried out since 1980 till 31.03.2025	CA carried out/Achieved since 1980 (as on 31.03.2025)	Balance CA / Backlog CA to be carried out since 1980 (as on 31.03.2025)
1	Andaman & Nicobar Islands	2744.67	2695.17	649.99	2045.18
2	Andhra Pradesh	28647.65	42723.20	37370.20	5353.08
3	Arunachal Pradesh	31764.93	61209.53	42415.16	18794.37
4	Assam	6244.83	10015.22	8588.01	1427.21
5	Bihar	4844.44	7739.82	7245.22	494.61
6	Chandigarh	64.14	110.20	110.20	0.00
7	Chhattisgarh	43951.18	74065.84	64160.92	9904.92
8	Delhi	322.42	407.93	340.46	96.16
9	Goa	2362.87	3566.38	3189.81	376.58
10	Gujarat	71626.61	103875.91	98529.63	5346.28
11	Haryana	8861.65	16060.12	11890.64	4169.48
12	Himachal Pradesh	15843.20	31731.55	29596.60	2135.00
13	Jammu & Kashmir	11194.85	22389.70	26736.27	0.00
14	Jharkhand	30682.93	74039.63	47802.36	26237.27
15	Karnataka	31577.24	30292.74	28669.41	1623.33
16	Kerala	38112.49	60830.53	60424.13	406.40
17	Ladakh	Nil	Nil	Nil	Nil
18	Madhya Pradesh	287248.22	262123.15	246146.82	15976.33

S. No.	State/UT	Forest Area Diverted under Van (Sanrakshan Evam Samvardhan) Adhinyam, 1980 (as on 31.03.2025)	Proposed/mandated CA to be carried out since 1980 till 31.03.2025	CA carried out/Achieved since 1980 (as on 31.03.2025)	Balance CA / Backlog CA to be carried out since 1980 (as on 31.03.2025)
19	<b>Maharashtra</b>	78468.00	113702.46	103736.63	9965.83
20	<b>Manipur</b>	5916.86	11590.47	6931.82	4658.65
21	<b>Meghalaya</b>	1010.72	1406.96	1035.61	371.36
22	<b>Mizoram</b>	11576.46	12054.23	11059.21	995.01
23	<b>Odisha</b>	69490.00	98058.90	79264.70	18794.20
24	<b>Punjab</b>	13173.09	24332.07	23335.15	996.92
25	<b>Rajasthan</b>	38894.76	53508.00	41455.60	12052.39
26	<b>Sikkim</b>	3541.23	5789.88	5589.06	200.82
27	<b>Tamil Nadu</b>	5232.64	4225.56	3972.57	252.98
28	<b>Telangana</b>	42168.62	36059.17	32310.75	3748.43
29	<b>Tripura</b>	-	8541.09	8157.38	383.71
30	<b>Uttar Pradesh</b>	49611.14	42699.82	34785.43	7914.39
31	<b>Uttarakhand</b>	53265.55	59276.66	56212.60	3064.06
32	<b>West Bengal</b>	3491.11	3407.17	3204.45	202.72
	<b>Total</b>	<b>991934.50</b>	<b>1278529.05</b>	<b>1124916.79</b>	<b>157987.66</b>

#### d. Important conferences and workshops

##### 1. Zonal Workshops on Digital APO (Five Zones)

These workshops, conducted across West, North-East, South, North, and East zones, trained senior and field-level forest officers. Discussions included Digital APO processes, integration of geospatial data, dashboards, statutory timelines, and troubleshooting. More than 500 forest divisions initiated Digital APOs for FY 2025–26, and States successfully transitioned from manual to digital workflows.

##### 2. National Workshop on Mangrove Initiative for Shoreline Habitats & Tangible Incomes (MISHTI)

Held on 8–9 January 2026 in Andhra Pradesh, the workshop brought together senior officers, experts, and stakeholders. Discussions focused on MISHTI's vision, mangrove-based climate resilience, livelihood generation, and coordinated implementation. States were sensitised to guidelines and committed to scientific restoration and community participation.

Conclusion

The workshops and digital initiatives undertaken during FY 2025–26 significantly enhanced institutional capacity, strengthened digital governance, and ensured consistent understanding of planning frameworks. Together, these reforms support transparent, efficient, and outcome-oriented implemen-

tation of CAMPA and MISHTI initiatives nationwide.

## 2. Schemes supported under National Fund for the FY 2025-26 (Rs. in crore, duration in year)

SNO	Scheme Name	Outlay	Duration	Objectives
1	Assessing Elephant Corridors, Habitat Utilization and Conflict Hotspots in the Bandhavgarh Region	0.97	3	To understand the habitat, use and movement ecology of Asian Elephants Bandhavgarh landscape. To map the corridor connectivity and factors influencing movement of elephant. Investigate environmental risks associated with Kodo millet cultivation. To investigate the patterns of human-elephant conflict and the factors influencing them.
2	Conservation and Management of the critically endangered gharial ( <i>Gavialis gangeticus</i> )	45.15	5	To assess and monitor the population dynamics of Gharials. To conserve and restore critical Gharial habitats. To implement threat mitigation strategies. To foster community engagement and environmental education by involving local communities in conservation activities. To support research and capacity building by advancing scientific studies on Gharial ecology, genetics, and interspecies dynamics.
3	Conducting Management Effectiveness Evaluation of Elephant Reserves in India	2.29	18 months	To evaluate the differences in legal protection, management strategies, ecological functions and anthropogenic pressure providing insights into the effectiveness of reserve-based conservation approaches. Identifying priority tasks for habitat management, including that of enrichment and consolidation. To propose a strategic framework for the formulation of Elephant Conservation Plan within Elephant Reserves.
4	Range wide Enumeration of River and Estuarine Dolphin Population in India	12.43	2.5	Capacity Building: To conduct workshops and training sessions on river dolphin survey techniques for Forest Department staff, and associated departments/organizations. Dolphin Enumeration: To conduct a comprehensive count of Ganges, Indus River dolphins and Irrawaddy dolphins and assess their habitats across India. Biodiversity and Habitat Monitoring

SNO	Scheme Name	Outlay	Duration	Objectives
5	Conservation and Management of Sloth Bear in India- A Landscape based initiative	13.67	5	<p>To establish a robust system for monitoring sloth bear population status and distribution across their range states. To develop and implement effective strategies for managing and reducing human-bear negative interaction in interface prone areas.</p> <p>To identify and restore degraded sloth bear habitats and maintain habitat/ corridor connectivity through ecological restoration efforts.</p>
6	Establishment of National Centre of Excellence for Human-Wildlife Conflict Management (NCCM) at SACON, Coimbatore, as announced by the Hon'ble Prime Minister of India	99.545	5	<p>Policy and Advocacy Support: Review of existing policies and undertake gap analyses to guide the Centre and State Governments on targeted policy and field actions, including the support for implementation of Centrally Sponsored Scheme for Human Wildlife Conflict Management, being considered by MoEF&amp;CC</p> <p>Spatial Analyses and Knowledge Management: Zonation (of wildlife-matrix, interface and human-matrix), spatial prioritisation and implementation of the region specific and species-specific action plans on human-wildlife interactions as may be desired by various stakeholders. Manage a National Database on Human Wildlife Interface and Actions, including Production of 'State of HWI Report'.</p> <p>Integration of Advance Technologies: Need and feasibility assessment of various technologies including AI, hand holding and knowledge transfer (technology transfer) to the targeted stakeholders.</p> <p>Awareness and Stakeholders Engagement: Regular engagement of stakeholders at various levels to manage the situation through social engineering, involving production and dissemination of knowledge and awareness materials to sensitise people and create a cadre of volunteers and constituency/stewardship for conflict management.</p> <p>Capacity and Skill Development: Plan and execute curriculum and knowledge products to develop capacity of forest officers/staff, line agencies and community leaders to enhance the capacity and stewardship.</p>
7	Management of Tigers outside Tiger Reserves: A preventive strategy to deal with Man-Tiger conflict	88.70	3	<p>To address the Human-tiger and other Co-predators conflict issue in the areas outside Tiger Reserves by strengthening the infrastructure, protection system etc.</p> <p>To have sustainable conservation of Tigers, co-predators and its habitats in the areas outside Tiger reserves by ensuring co-existence with the local communities</p>

SNO	Scheme Name	Outlay	Duration	Objectives
8	Completing the task of uploading and sharing of Recorded Forest Area (RFA) and other protected areas shape files with World Database on Protected Areas (WDPA)	1.50	2	Improving the ranks of India in the Environment Performance Index (EPI) by reflecting the complete information and Data related to Protected Areas shape files at World Database on Protected Areas (WDPA)
9	Identifying effective wildlife management interventions for replication	1.70	15 months	Document and analyze past successful wildlife management interventions across India. Identify key replicable elements from these models — legal, ecological, social, and financial. Develop a replication framework to scale up interventions across priority landscapes. Engage stakeholders to ensure integrated conservation and development outcomes. Video documentation of successful wildlife management interventions for knowledge dissemination.

### 3. CAMPA activities in various States/UTs for the FY 2025-26

#### (i) Compensatory Afforestation in the FY 2025-26

S. No	States/UTs	Physical Targets approved			Financial Targets approved (in crores)			Total Funds Approved
		Advance	Creation	Maintenance	Advance	Creation	Maintenance	
1	Andaman & Nicobar Islands	-	2.3 Ha	140.11 Ha	-	0.38	0.81	1.19
2	Andhra Pradesh	388.26 Ha	1247.7 Ha	3436.97 Ha	2.205	8.735	11.639	22.579
3	Arunachal Pradesh	-	1799.54 Ha	1929.06 Ha	-	20.63	57.11	57.11
4	Assam	285.24 Ha	255.4 Ha	1350.35 Ha	7.1	1.44	5.59	14.13
5	Bihar	-	-	-	-	-	-	-
6	Chandigarh	-	0.24 Ha	56.19 Ha	-	0.24	0.435	0.675
7	Chhattisgarh	4217.05 Ha	2552.14 Ha	12560.589 Ha.	170.91	54.42	12.71	238.04
8	Delhi	-	83.48 Ha	219.16 Ha	-	7.27	15.58	22.85
9	Goa	-	130 Ha + 6.95 lakhs	1432 Ha + 3.30 lakhs	-	3.65	5.62	9.27

S. No	States/UTs	Physical Targets approved			Financial Targets approved (in crores)			Total Funds Approved
		Advance	Creation	Maintenance	Advance	Creation	Maintenance	
10	Gujarat	2205 Ha	2559.23 Ha	17703.75 Ha	120.77	30.71	35.04	186.52
11	Haryana		737.84 Ha	5248.93 Ha	-	48.27	22.27	70.54
12	Himachal Pradesh	890.767 Ha	886.5454 Ha	8976.91 Ha	4.15	5.98	6.66	16.79
13	Jammu & Kashmir		20.2 lakh	3.78 lakh	-	2.03	1.09	3.12
14	Jharkhand	8190.68 Ha	3943.43 Ha	13709.85 Ha + 222.45 km + 1000 gab	215.76	21.4	21.68	258.84
15	Karnataka	1200 Ha	2595.54 Ha	6915.11 Ha	20.18	27.56	14.93	62.67
16	Kerala	-	208.7 Ha + 1800 nos	141.79 Ha	-	1.45	1.29	2.74
17	Ladakh	-	-	-	-	-	-	-
18	Madhya Pradesh	8706.11 Ha	4466.30 Ha	31062.33 Ha	178.11	32.75	87.89	298.75
19	Maharashtra	3899.20 Ha	1131.44 Ha	8398.49 Ha	141.33	19.61	25.32	186.26
20	Manipur	1855.23 Ha	989.97 Ha	1199.55 Ha	9.78	3.6	1.35	14.73
21	Meghalaya	372.55 Ha	16.71 Ha + 500 nos+1029 beds	716.63 ha+35 bed	0.87	1.73	1.16	3.76
22	Mizoram	186.465 ha	-	-	0.55			0.55
23	Odisha	-	3990570 Nos.	13205.804 ha	16	112.48	17.76	146.24
24	Punjab	750 ha	582.252 Ha + 81811 Nos. tall plants under ACA + raising of 1.45 Nos. lakh tall plant + 200.06 Nos. lakh plants in Nursery	9518.31 ha + 340812 Nos. tall plants under ACA		61.21		61.21
25	Rajasthan	2357.642 Ha	1925.377 Ha	26195.22 Ha	13.13	20.83	19.56	53.52
26	Sikkim	-	234.91 Ha	863.98 Ha	-	25.2	3.97	29.17
27	Tamil Nadu	-	188.47 Ha	435.559 Ha	-	3.99	3.04	7.03

S. No	States/UTs	Physical Targets approved			Financial Targets approved (in crores)			Total Funds Approved
		Advance	Creation	Maintenance	Advance	Creation	Maintenance	
28	Telangana	112.61 Ha	1217.08 Ha	17948.85 Ha	0.74	12.46	48.27	61.47
29	Tripura	600 Ha	583.08 Ha	3196.61 Ha	7.38	3.5	3.02	13.9
30	Uttar Pradesh	1490.60 Ha (36045 No. of Plants)	1825.28 Ha (71385 No. of Plants)	16634.55 Ha (569155 No. of Plants)	12.19	14.55	18.14	44.88
31	Uttarakhand	1500 Ha	1600 Ha	4057508 Nos + 16000 lakh	18	10	40.4	68.4
32	West Bengal	250.52 Ha + 1400 Nos	297.61 Ha + 1567 nos	844.52Ha + 767 Nos	0.35	0.74	1.53	2.62
	<b>Total</b>							<b>1959.55</b>

### APO approved by National Authority CAMPA for the FY 2019-20 to 2025-26

Sl. No	State/UT	APO Amount approved (in Crores)						
		2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26
1	Andaman and Nicobar Islands	Nil	2.13	Nil	10.97	6.70	10.42	5.9
2	Andhra Pradesh	322.97	330.82	325	224.09	226.75	253.60	261.07
3	Arunachal Pradesh	Nil	155.46	240.35	195.29	190.69	126.55	390.3
4	Assam	55.89	88.34	95.01	162.57	109.69	104.39	102.75
5	Bihar	140.18	238.76	106.84	115.42	37.88	65.18	48.01
6	Chandigarh	1.87	2.26	3.6	1.66	1.54	1.40	0.75
7	Chhattisgarh	848.51	1347.02	1500.76	688.46	471.21	401.69	537.13
8	Delhi	Nil	19.55	16.15	33.93	47.15	34.55	47.8
9	Goa	17.95	32.68	21.55	36.53	31.28	29.56	33.68
10	Gujarat	256.47	240.69	200	205.4	250.02	310.50	400.45
11	Haryana	100.97	203.95	317.59	270.68	69.03	110.83	192.32
12	Himachal Pradesh	145.82	158.38	138.1	190.23	185.14	184.52	254.44
13	Jammu and Kashmir	126.74	184.33	269.97	312.69	370.55	180.18	160.78
14	Jharkhand	399.29	376.56	437.62	764.85	412.14	654.62	1123.69
15	Karnataka	146.23	212.94	321.09	270.98	313.89	288.06	337.90

Sl. No	State/UT	APO Amount approved (in Crores)						
		2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26
16	Kerala	Nil	15.78	25.13	17.26	9.06	8.93	8.27
17	Ladakh	Nil	Nil	Nil	Nil	60.55	76.94	111.88
18	Madhya Pradesh	456.09	860.93	713.46	889.84	1070.60	1398.42	1443.63
19	Maharashtra	499.38	599.32	688.27	708.11	597.57	720.32	531.24
20	Manipur	30.36	27.79	25.09	22.59	20.26	27.36	44.52
21	Meghalaya	Nil	33.97	36.4	26.67	30.91	24.75	25.11
22	Mizoram	Nil	32.66	18.08	16.74	14.60	22.77	21.28
23	Odisha	610.52	773.39	901.03	1191.31	948.04	1112.93	1119.86
24	Punjab	102.15	177.85	218.06	203.01	257.10	125.94	165.68
25	Rajasthan	265.39	280.7	286.7	249.19	286.49	198.44	269.70
26	Sikkim	54.99	75.49	71.32	69.82	79.95	44.00	110.39
27	Tamil Nadu	Nil	66.62	Nil	38.22	44.15	35.27	23.46
28	Telangana	501.26	483.78	752.71	772.65	455.30	386.80	412.99
29	Tripura	20.83	21.51	35.24	52.9	85.77	61.87	90.71
30	Uttar Pradesh	285.68	442.01	586.89	344.08	172.04	155.57	176.11
31	Uttarakhand	218	353.64	726.88	320.15	383.82	335.37	403.67
32	West Bengal	70.07	74	58.3	52.83	79.40	63.51	90.13
	<b>Total</b>	<b>5677.61</b>	<b>7913.31</b>	<b>9137.19</b>	<b>8459.12</b>	<b>7319.27</b>	<b>7555.24</b>	<b>8945.60</b>

## (ii) Assisted Natural Regeneration in the FY 2025-26

S.No	States/UTs	Physical Targets approved			Financial Targets approved			Total Funds Approved
		Advance	Creation	Maintenance	Advance	Creation	Maintenance	
1	Andaman & Nicobar Islands	-	2	-	-	0.01	-	0.01
2	Andhra Pradesh	10 ha	600 ha	1502.2 ha	0.05	1.42	1.29	2.76
3	Arunachal Pradesh	503 ha	5700 ha+ 26660 Nos.	14970.45 ha	10.97			10.97
4	Assam	245 ha	-	840 ha	4.54	-	2.73	7.27
5	Bihar	-	-	-	-	-	-	-
6	Chandigarh	-	-	-	-	-	-	-
7	Chhattisgarh	-	-	-	-	-	-	-
8	Delhi	-	-	40 ha	-	-	0.06	0.06
9	Goa	-	145 ha	475 ha	-	1.09	1.19	2.28
10	Gujarat	-	-	-	-	-	-	-

**(ii) Assisted Natural Regeneration in the FY 2025-26**

S.No	States/UTs	Physical Targets approved			Financial Targets approved			Total Funds Approved
		Advance	Creation	Maintenance	Advance	Creation	Maintenance	
11	Haryana		200 ha	1166 ha		5.14	2.31	7.45
12	Himachal Pradesh	-	-	-	-	-	-	-
13	Jammu & Kashmir		1800000 Nos.	1283000 Nos.		4.81	3.55	8.36
14	Jharkhand	3075 ha	1609.54 ha	-	27.00	2.83	-	29.83
15	Karnataka	7000 ha +3080000 Nos.	6000 ha +2904000 Nos.	-	42.48	17.45	-	59.93
16	Kerala	-	-	-	-	-	-	-
17	Ladakh	-	-	-	-	-	-	-
18	Madhya Pradesh	-	-	-	-	-	-	-
19	Maharashtra	-	365 ha	1040 ha	-	2.92	4.86	7.78
20	Manipur	540 ha		2085 ha	2.71		2.34	5.05
21	Meghalaya	26.2 ha	65 beds	108 ha+80 beds	0.04	0.10	0.28	0.42
22	Mizoram	-	-	1800 ha	-	-	2.25	2.25
23	Odisha	18285 ha	18285 ha	97456 ha	169.80			169.80
24	Punjab	1400 ha	1129 ha	5423 ha	16.36			16.36
25	Rajasthan	1900 ha	1000 ha	34117 ha	11.34	1.28	11.26	23.89
26	Sikkim	-	-	-	-	-	-	-
27	Tamil Nadu	-	20 ha	28.52 ha		0.12	0.21	0.32
28	Telangana	-	-	1901 ha + 1286 Km	-	-	2.58	2.58
29	Tripura	600 ha	900 ha	1059.67 ha	7.38	5.40	2.50	15.28
30	Uttar Pradesh	2990 ha	1529.10 ha	-	7.95	2.52	-	10.47
31	Uttarakhand	-	948.4 ha		-	2.30		2.30
32	West Bengal	10 ha		50 ha	0.02		0.04	0.06
	Total							385.47

**(iii) Artificial Regeneration in the FY 2025-26**

S.No	States/UTs	Physical Targets approved			Financial Targets approved			Total Funds Approved
		Advance	Creation	Maintenance	Advance	Creation	Maintenance	
1	Andaman & Nicobar Islands	-	10000 Seedlings	153000 seedlings	-	0.01	0.21	0.22
2	Andhra Pradesh	595 Ha	1383.50 Ha	4533 Ha	3.75	8.47	11.89	24.11
3	Arunachal Pradesh	8026.41 Ha	18360.64 Ha	1000867 Nos	73.09	20.07	9.21	102.37
4	Assam	583 Ha	286.86 Ha	5551.77 Ha	12.57	1.8	23.01	37.38

S.No	States/UTs	Physical Targets approved			Financial Targets approved			Total Funds Approved
		Advance	Creation	Maintenance	Advance	Creation	Maintenance	
5	Bihar	-	-	-	-	-	-	-
6	Chandigarh	-	-	-	-	-	-	-
7	Chhattisgarh		-	36192.29 Ha.	-	-	22.05	22.05
8	Delhi	-	-	-	-	-	-	-
9	Goa	-	-	-	-	-	-	-
10	Gujarat	900 Ha	9400 Ha	14829 Ha	12.07	56.8	58.17	127.04
11	Haryana	-	185 Ha	3482.82 Ha		7.43	22.45	29.88
12	Himachal Pradesh	-	727 Ha	-	-	4.78	3.33	8.11
13	Jammu & Kashmir	-	-	-	-	-	-	-
14	Jharkhand	6500 Ha	640 Ha	6115 Ha	82.91	9.45	13.27	105.63
15	Karnataka	800 ha	800 Ha	3883.72 Ha	7	10.54	6.8	24.34
16	Kerala	-	-	-	-	-	-	-
17	Ladakh	-	310050 Nos.	44957 Nos.	0.3	1.655	0.14	2.095
18	Madhya Pradesh	31692 ha	44655 ha	183001 ha	332.71	116.98	166.01	615.7
19	Maharashtra	-	-	255 ha	-	-	1.31	1.31
20	Manipur	970 ha	970 ha	6290 ha	4.75	3.26	7.02	15.03
21	Meghalaya	192 ha	71.06 ha + 12 kms	1011.4 ha + 4 kms+LS	1.14	3.01	3.6	7.75
22	Mizoram	-	-	-	-	-	-	-
23	Odisha	1215.5 ha	1215.5 ha	7843 ha		47.66		47.66
24	Punjab	100 ha	100 ha	4650 ha		9.33		9.33
25	Rajasthan	815 ha +1000 RKM	2175 ha +180 RKM	8640 ha + 510 RKM	5.935	7.94	10.39	24.265
26	Sikkim	-	240 ha	220 ha		3.77	0.37	4.14
27	Tamil Nadu	-	-	-	-	-	-	-
28	Telangana	1500 ha	1150 ha	5543.45 ha + 6509314 nos	5.55	10.03	26.97	42.55
29	Tripura	400 ha	500 ha	902.69 ha	4.92	3	1.9	9.82
30	Uttar Pradesh	-	-	-	-	-	-	-
31	Uttarakhand	600	767.5 ha+ 23244 ha/nos + 1665720 Nos	5847760 nos + 4636.35 ha.	8	28	15.5	51.5
32	West Bengal	60 ha+10 Nos		277.4 ha+ 20km	0.44		0.958	1.398
	Total							1313.679

**(iv) Funds approved for creation of modern nurseries in the FY 202526**

S.No	States/UTs	Physical Target	Financial Target
1	Andaman & Nicobar Islands	7500 seedlings+LS	0.09
2	Andhra Pradesh	Establishment-5 Nos Upgradation- 24 Nos maint.- 65 Nos	1.711
3	Arunachal Pradesh	2.5ha+733253.3 nos	14.3
4	Assam	-	-
5	Bihar	-	-
6	Chandigarh	-	-
7	Chhattisgarh	24nos	9.4
8	Delhi	1+ 1 nos	0.14
9	Goa	-	-
10	Gujarat	41.00laks	17.5
11	Haryana	-	-
12	Himachal Pradesh	-	5.1
13	Jammu & Kashmir	186	1.08
14	Jharkhand	49nos+148.5ha	50.99
15	Karnataka	-	-
16	Kerala	2 LS	0.372
17	Ladakh	8location+4nos	1.02
18	Madhya Pradesh	-	24.11
19	Maharashtra	133	0.67
20	Manipur	17	1.7
21	Meghalaya	5nos+130m+60bed+LS	0.4
22	Mizoram	-	-
23	Odisha	-	-
24	Punjab	Raising of 37.56 lakh Nursery Stock +1.00 tall plant	5.08
25	Rajasthan	8 nos+LS	4.9
26	Sikkim	-	0.3
27	Tamil Nadu	-	-
28	Telangana	4.195 LBps	0.83
29	Tripura	5	0.6
30	Uttar Pradesh	46 Nos	3.22
31	Uttarakhand	2 nos	1.5
32	West Bengal	-	-
	<b>TOTAL</b>		<b>145.013</b>



**Establishment of AI Camera for Monitoring Elephant movement, Odisha State Forest Department**



**Management of Tigers outside Tiger Reserves: A preventive strategy to deal with Man-Tiger conflict**

## 6.3 Forest Establishment

### a. Introduction & objectives

The Forest Establishment Division deals with a defined set of establishment matters pertaining to the Sub Ordinate Offices of the MoEFCC, viz., Forest Survey of India, Dehradun; Wildlife Crime Control Bureau, New Delhi; Directorate of Forest Education, Dehradun; National Zoological Park, New Delhi; Indira Gandhi National Forest Academy, Dehradun; and the Indian Council for Forestry Research and Education, Dehradun (Autonomous Body under the MoEFCC).

### Major Functions of the Division

- Nodal Division for reporting vacancies of Lower Division Clerk through Combined Higher Secondary Level Examination, Junior Translation Officer (Hindi), Stenographer-D to the Staff Selection Commission for the Subordinate Offices [Botanical Survey of India, Zoological Survey of India, National Museum of Natural History, Forest Survey of India, Directorate of Forest Education, Indira Gandhi National Forest Academy, Wildlife Crime Control Bureau, National Zoological Park and Regional Offices-Head Quarter].
- Co-monitoring the recruitment targets along with the Administrative Divisions.
- Administering the works related to the ACC approval for appointment of Director General, ICFRE, Dehradun.
- Recruitment/Promotion/Deputation of Group A & B officers in the Subordinate Offices of the Ministry through the UPSC.
- Constitution of the Screening Committee for the selection of candidates for appointment to the Joint Secretary level and above posts in the ICFRE, Dehradun.
- Approval/amendments of Recruitment Rules (RRs) for Group A, Group B and Group C posts in the Subordinate Offices.
- Administrative processing of the proposals regarding the creation/revival of the posts received from the FSI, DFE, IGNFA, WCCB, NZP, and ICFRE / Union Territories (UTs) for their Forest Establishments.
- Handling matters related to the appeals in disciplinary cases/ appeals against adverse entries in the ACR/APAR of Group 'A' 'B' & 'C' in the Subordinate Offices of the Ministry.
- Processing and disposal of Public Grievances, RTI applications, VIP references as per the SoPs.
- General Establishment matters such as awarding annual increments, LTC, etc., in respect of the WCCB, New Delhi.

## b. Activities undertaken during the period

- Disposed of appeal cases under CCS (CCA) Rules pertaining to employees of the Forest Survey of India by obtaining UPSC advice, ensuring timely, legally sound, and well-reasoned resolution of complex service matters.
- Strengthened the recruitment by distributing 60 dossiers of CHSL-2024 (LDC) selected candidates to subordinate offices and submitting a consolidated requisition for 41 LDC posts under CHSL-2025 to the Staff Selection Commission.
- Augmented manpower in subordinate offices through completion of recruitment of 20 Stenographers Grade-D, and 12 Junior Translation Officers via SSC.
- Streamlined deployment of contractual manpower by securing approval for engagement of 37 contractual staff at WCCB (HQ) and its Regional Offices.
- Facilitated direct recruitment and promotions by constituting Departmental Promotion Committees for Forest Survey of India, Indian Council of Forestry Research and Education, National Zoological Park, Wildlife Crime Control Bureau, Directorate of Forestry Education, and Indira Gandhi National Forest Academy.
- Accelerated cadre rationalization and policy reforms through finalization, publication, and stakeholder consultation of multiple Recruitment Rules across Forest Survey of India, Directorate of Forestry Education, and Wildlife Crime Control Bureau, including issuance of Gazette Notifications.
- Inter-ministerial coordination with DoPT, UPSC, and the Ministry of Law & Justice for consultation and vetting of draft Recruitment Rules for key technical and administrative posts.
- Ensured leadership continuity in ICFRE and its institutes by obtaining approval of Search-cum-Selection Committees and facilitating filling up of eight senior positions of Deputy Director General(s) and Director(s).
- Completed deputation-based selections for key positions in WCCB, including Deputy Director (IRS-C&IT) and Assistant Director posts, and coordinated inter-cadre deputation by placing requisitions with MHA for filling up IPS posts in WCCB.
- During 01.01.2025 to 31.12.2025, the FE Division processed and disposed of 134 RTI Requests, 9 RTI Appeals, 55 Public Grievances, 10 Public Grievances Appeal and 9 VIP/MP references. The cases were processed for disposal in a standard time of less than 10 days.
- Processed and defended 32 Court Cases in various Hon'ble Courts and Hon'ble Central Administrative Tribunals.
- All Officers and staff completed the required learning hours in the National Learning Week and Mission Karmayogi.
- Other miscellaneous matters regarding sub-organizations, State Governments, and UTs. of India regarding forest establishment.

## c. Works under progress:

- Following up on recruitment to the reported vacancies of Lower Division Clerks, Stenographer-D, and Junior Translation Officers (Hindi) to the Staff Selection Commission (SSC) as Nodal Division.
- Allocation of the candidates recommended by the SSC to the various Subordinate Offices of the Ministry for the above posts.
- Coordination in the Mission Mode Recruitment Phase II between P-II and subordinate offices and ICFRE.
- Facilitating onboarding of the employees of the Subordinate Offices and ICFRE on eHRMS and SPARROW - APAR portals.
- Periodic coordination/follow-up meetings with subordinate Offices /ICFRE and State Govts/ UTs for matters related to the establishment of forest staff, grievances, court cases and vacancies across various forestry executive and min-

isterial cadres

- Periodical monitoring and compliance reporting on implementation of FR 56(j)/(l) and Rule 48 by the Subordinate Offices and ICFRE.
- Annual Inspection of the Subordinate Offices and ICFRE under the FE Division.

## 6.4 Forest Policy

### a. Introduction, objectives and functions

Forest Policy Division of Ministry of Environment, Forest and Climate Change (MoEF&CC) deals with the National Forest Policy, 1988, the Indian Forest Act, 1927 and forest related policies and legislations of other Ministries and State Governments. The Division facilitates the promotion of agroforestry and implement the National Transit Pass System in the country. It is the National Focal Division for international cooperation on United Nations Forum on Forestry (UNFF), Asia Pacific Forestry Commission (APFC), Asia Pacific Forest Invasive Species Network (APFISN), Committee on Forestry of FAO (COFO) and UN-REDD. Forest Policy Division is also the nodal Division for all matters related to India-UK Forest Partnership. The Division deals with policy matter and bilateral negotiations on forest and sustainable development and forest and trade related multilateral and bilateral issues.

The Division gives policy directions and issues advisories from time to time to State Governments on important forestry matters. The Division has no subordinate offices/ institutions attached with it.

### b. Important activities undertaken

Brief activities undertaken so far during period 01/01/2025 to 31/12/2025 is as under:

- (i) Implementation of National Transit Pass System (NTPS): Ministry has developed a National Transit Pass System (NTPS) for seamless inter/ intra state transportation of timber and other forest produces across all states. Online portal on National Transit Pass System (NTPS) can be used for issuance, monitoring and maintaining records of transit permits. It promotes Single Pan India Permit for the transit of timber and other minor forest produce for ease of doing business. To roll out the NTPS in States/UTs, Ministry had organized various meetings and training sessions to the States/ UTs.
- (ii) Model Rules for felling of trees in agricultural lands for promotion of Agroforestry: The Ministry of Environment, Forest and Climate Change has issued the 'Model Rules for Felling of Trees in Agricultural Lands' in June 2025, with the objective of supporting States and Union Territories in simplifying regulatory frameworks and promoting agroforestry. The Model Rules aim to establish a streamlined regulatory framework by providing simplified procedures for registering agroforestry lands and managing tree harvesting and transit. The initiative is expected to encourage greater participation and open up opportunities for farmers and other stakeholders to adopt agroforestry practices. The model rules are designed to support ease of doing business for those involved in tree-based farming systems. The Ministry of Environment, Forest and Climate Change has requested States and UTs to examine the model rules and consider their adoption in order to enhance the ease of doing business in agroforestry and incentivize farmers to integrate trees into their farming systems without facing undue procedural hurdles.
- (iii) Green Credit Programme and Green Credit Rules, 2023: The Green Credit Rules, 2023, has been notified by the Ministry during October 2023 to encourage and promote voluntary environmental actions by awarding of Green Credits. The Ministry of Environment, Forest and Climate Change, Government of India, has released the revised modalities for restoration of degraded forest lands under the Green Credit Programme in August 2025. The Green Credit

Programme is now open for individuals, private sector and public sector entities for undertaking restoration of degraded forest lands. A dedicated online GCP Portal has been developed where entities and other stakeholders can register themselves to participate in the program, including selection of land parcels, making payment of fund, and receiving green credits.

- (iv) A plantation drive was organized in Central Ridge under Ek Ped Maa Ke Naam campaign on the occasion of International Day of Forests, 21st March, 2025.
- (v) Ministry actively engaged and directed all its subordinate bodies/ institutions along with the State Forest Departments for celebration of Janjatiya Gaurav Divas 2025 as a commemoration of the 150th Birth Anniversary of Bhagwan Birsa Munda during Janjatiya Gaurav Varsh Pakhwada (1st – 15th November 2025).
- (vi) Swachhta campaign 5.0: Forest Policy Division has completed all the assigned tasks which include (a) weeding out of the files as per schedule (b) space creation (c) disposal of all pending grievances, assurances, VIP references, etc (d) cleaning of all desks (e) disposal of unutilized equipment's, etc.

### c. Progress/Innovations

- As of 31st December, 2025, a total of 2,572 degraded land parcels, spanning approximately 60,563 hectares across 17 states, have been registered on the Green Credit Portal. Furthermore, 17 PSUs have made the payment of ₹335.05 cr for restoration of 225 blocks covering the area of 4,391 ha.
- So far 33 States / UTs have adopted NTPS by amending the State Transit Rule or by agreeing to use NTPS where TP Rule is not in place for the implementation of NTPS.

### d. Important conferences organized in India or international conferences

- (i) Participation at UN Forum on Forest meetings: Indian delegation led by DGF&SS participated in the 20th session of United Forum on Forests (UNFF) meeting at UN Hqrs, New York, USA from 05th to 9th May, 2025. During the session, India highlighted the Country's significant advancements in forest conservation and sustainable forest management which led to consistent increase in forest cover over the past fifteen years. The Ministry hosted a side event on 'Restoring Degraded Forest Landscapes: India's Approach to Sustainable Forest Management and Climate Resilience' in association with The Energy and Resources Institute (TERI), New Delhi at the UNFF 20 at New York.
- (ii) Indian delegation participated in the Country Led Initiative (CLI) event under UNFF organised by the Government of Türkiye from 20-22 October 2025 at Istanbul, Türkiye.
- (iii) Indian delegation participated in 31st Session of the Asia-Pacific Forestry Commission held from 4-7 November, 2025 at Chiang Mai, Thailand.
- (iv) A draft Resolution on the topic 'Strengthening Global response on Management of Wildfire' has been proposed by India in the upcoming seventh session of the United Nations Environment Assembly (UNEA) is submitted to UNEP, for inclusion in the official list of draft resolutions to be considered at UNEA-7.

### e. MEAs, agreement with countries, international organizations, compliance

Letter of Intent on Forestry Cooperation signed on 17th March, 2025 between Ministry of Environment, Forest and Climate Change and Ministry of Primary Industries of New Zealand.

## 6.5 Forest Protection

### a. Introduction, objectives and Functions

**Introduction:-**

- i. The Forest Protection Division of the Ministry has been mandated for addressing issues related to protection of the forests such as protection of forests from illicit tree felling, de-forestation, encroachment and forest fires etc. The division also looks into the matters pertaining to disaster management of forest fires.
- ii. The Forest Protection Division of the Ministry supports the efforts of State Governments/ Union Territory Administrations in protection of forests, prevention & control of forest fires by providing financial assistance under Centrally Sponsored Scheme.

### **Objective and Functions of the Division:-**

- i. Nodal division for the issues relating to forest fires.
- ii. Implementation of the National Action Plan on Forest Fire.
- iii. Concerns regarding the protection of forests include preventing illegal tree cutting, halting deforestation, and addressing the encroachment of forest land.
- iv. Using geo-spatial technology to manage forest fires, such as disseminating alerts, providing pre-fire warnings, and assisting the Forest Survey of India in assessing burned areas. Nodal division for issue pertaining to disaster management.

### **b. Important activities undertaken**

- i. The Forest Survey of India, Dehradun an organisation under the ministry has put in place a remote sensing-based system for the detection of forest fires throughout the Nation that allows for the quick detection and dissemination of information concerning forest fires. The early detection and control of forest fires across the Nation is significantly assisted by this technique.
- ii. The user subscriptions of the Forest Survey of India Forest Fire Alert System have increased to 4.35 lakhs in the current forest fire season

- (Nov 2024- June 2025) as compared to 3.21 lakhs in the last forest fire season (Nov 2023- June 2024).
- iii. The Ministry has also finalised Standard Operating Procedures through ICFRE for prevention, mitigation, and response, and circulated them to all States/UTs for implementation.
  - iv. The Ministry in coordination with NDMA and NDRF has trained three battalions of NDRF, comprising 150 personnel to tackle large forest fires. These three NDRF battalions are urgently stationed at Dehradun, Burnihat and Vijayawada.
  - v. As the Nodal Ministry responsible for managing issues related to forest fires and chemical accidents, the Ministry has set up a Disaster Management Cell for monitoring such disasters. Additionally, a 24-hour toll-free helpline (1800119334) has been installed to closely monitor incidents involving fires and chemical disasters that occur in the States and Union Territories.
  - vi. A continuous advisory is being sent to all States and Union Territories before to the start of the fire season, urging them to concentrate on being prepared to put out any forest fire as soon as possible in order to effectively avoid and manage it.
  - viii. The Resolution 'Strengthening Global response on Management of Wildfire' sponsored by India in the seventh session of the United Nations Environment Assembly (UNEA-7) held in December, 2025 in Nairobi, Kenya has been adopted. India underlined that wildfires have emerged as one of the most pressing environmental challenges globally. The resolution aimed at strengthening international cooperation and coordinated action for wildfire management. It highlighted that regions across the world are witnessing a steady rise in the number, scale and intensity of wildfires, which were once limited to seasonal occurrences. The resolution seeks to strengthen

and build upon ongoing global efforts under the Global Fire Management Hub by promoting stronger international and regional cooperation for integrated fire management. It emphasizes the development of robust early warning systems, risk assessment tools, and satellite- and ground-based ecosystem monitoring, alongside community-based alert mechanisms, and calls for enhanced collaboration in prevention, post-fire response, recovery, and ecosystem restoration. The resolution also underlines the importance of systematic knowledge sharing and capacity building through platforms for best practices and targeted training programmes, supports Member States in the formulation and implementation of national and regional action plans for wildfire resilience, and facilitates access to international finance by assisting countries in preparing project proposals for multilateral funding and results-based financing mechanisms.

### c. Progress/Innovations

The Forest Protection Division is using the Forest Survey of India Van Agni Geo-Portal to monitor near real time forest fire detection and large forest fires in various States and UTs throughout the 2024-25 forest fire season.

### d. Important Cumulative achievements

Forest Fire Mitigation Training Programme for National Disaster Response Force Functionaries (NDRF), has been undertaken by the Ministry to Provide knowledge on prevention, control and response actions for handling forest fires. Three NDRF Battalions has been trained and deployed at Dehradun, Guwahati and Vijayawada.

### e. Continuing committees/commissions

- i. Total two Screening Committee meeting has been conducted for the FY-2024-2025.

- ii. In compliance of the direction of the Hon'ble National Green Tribunal, New Delhi the Forest Protection Division has constituted a Central Monitoring Committee (CMC) under the Chairmanship of Secretary (EF&CC) to monitor the implementation of the National Action Plan on Forest Fire.

### Scheme under Forest Protection Division:

#### Centrally Sponsored Scheme: Forest Fire Prevention and Management Scheme

##### a. Objectives:-

- To reduce the frequency of forest fires and assist in restoring productivity of forests in affected areas.
- To formally establish a collaboration with forest fringe communities and the conservation of forests.
- To support the overarching objective of preserving the stability of the environment.
- To crate a forecasting system for forest fires and a method for grading the hazard of fires.
- To support the States and UTs in making the most efficient possible use of modern technology (such as GPS, GIS and remote sensing) for planning, developing, and implementing a system for managing and preventing fires.
- To increase understanding of the dynamics and effects of forest fires.

##### b. Progress/Achievements

As of January 08, 2026 an amount of Rs. 13.89 Crores has been incurred under the Centrally Sponsored Scheme: Forest Fire Prevention and Management for the Financial Year 2025-26.

## 6.6 Survey and Utilization

### a. Introduction, objectives and functions

The Survey and Utilisation Division deals with the survey and utilisation of forest resources; matters pertaining to the trade policy on sandalwood, red sanders, agarwood etc. including regulation of the

export and import of forest produce in line with the Export and Import (EXIM) policy; matters concerning to the State Forest Development Corporations; the Andaman and Nicobar Islands Forest Plantation Development Corporation Limited, etc. Other responsibilities include matters related to the Wood-Based Industries (WBI), National Working Plan Code, implementation of the Indian Forest and Wood Certification scheme (IFWCS) and World Data of Protected Area. Additionally, the Division also handles the international cooperation for the matters relating to the International Tropical Timber Organization (ITTO), the International Network for Bamboo and Rattan (INBAR). The Division has one subordinate organisation i.e. Forest Survey of India (FSI), Dehradun and all matters related to the FSI excluding establishment issues are dealt by the Division. SU Division also deals with the matters related to Central Empowered Committee (CEC).

**Objectives and Functions of the Division:** The details of the activities and their implementation institutes are as under:

- (i) Forest Survey of India: The Forest Survey of India (FSI) assesses forest resources of the country using remote sensing and field inventory and provides training to forestry personnel of the State /UTs Departments on various forest based thematic areas.
- (ii) Central Empowered Committee:-The Central Empowered Committee has been reconstituted vide notification dated 05.09.2023 to monitor and ensure compliance with Supreme Court orders related to environment, forests, and wildlife, and to recommend measures for effective implementation of these orders.
- (iii) National Working Plan Code:- The working plan is the main instrument for scientific management of forests in India. National Working Plan Code was first adopted in 2004 with a subsequent amendment in 2014. This was further

revised in 2023 as the National Working Plan Code 2023.

- (iv) Indian Forest and Wood Certification Scheme:- Indian Forest and Wood Certification Scheme (IFWCS) was released in December 2023 to promote sustainable timber and forest produce through voluntary participation.
- (v) Wood Based Industries: The Guidelines for Wood Based Industries (Establishment and Regulation) Guidelines, 2016 were notified on 11.11.2016 and were modified in 2017 and 2019. In accordance to the provisions of these guidelines, the concerned States/UTs constitute 'State Level Committee' to perform the functions stipulated under the guidelines.
- (vi) State Forest Development Corporations: SU Division is nodal division for matters related to State Forest Development Corporations.
- (vii) International Tropical Timber Organization (ITTO): India is a founder member of ITTO which aims for conserving tropical forest and assisting countries to develop economically in the field of forestry. There are 76 members countries out of which 37 are producers and 39 are consumers. India belongs to the group of the producer member countries. The ITTO's membership represents 90% of world trade in tropical timber and 80% of the world's tropical forests. SU Division in the Ministry is the Nodal Division for all matters related to ITTO.
- (viii) International Network for Bamboo & Rattan (INBAR): INBAR is an intergovernmental organization established in 1997. INBAR is dedicated to improving the social, economic, and environmental benefits of bamboo and rattan. SU Division in the Ministry is the Nodal Division for INBAR.
- (ix) Survey and demarcation: - SU Division is expediting digitization of forest boundaries in all the States and Union territories and resolving the discrepancies between the notified forest area and forest area arrived after digitization the boundaries.

## b. Important activities undertaken

Important activities undertaken during the period 01.01.2025 to till date with respect to SU Division is as under:

- i. The division has played a key role in giving the final shape to India State of Forest Report (ISFR) 2023. The details activities undertaken by the Forest Survey of India area as under:

### A. Forest cover mapping and Tree cover assessment:

Forest Survey of India (FSI) carries out in wall-to-wall forest cover assessment of the country on biennial basis through interpretation of satellite data and publishes the information in the ‘India State of Forest Report’. So far, eighteen cycles of forest cover assessment have been completed from 1987 to 2023. The results of 18th cycle Forest Cover Mapping (FCM) were published in ISFR 2023, and currently the work of 19th Cycle FCM, for ISFR 2025 is in progress.

In addition to forest cover mapping, assessment of tree cover of the country is also being carried out using the Trees Outside Forests (TOF) inventory data. As per ISFR 2023, there is an increase of 156.41 km<sup>2</sup> (0.02%) in the forest cover and 1,289.40 km<sup>2</sup> (1.16%) in the tree cover as compared to the last assessment, ISFR 2021. Thus, there is an overall increase of 1,445.81 km<sup>2</sup> (1.18%) of forest cover and tree cover put together at national level. The details of different types of forests are shown in Fig. 1 below.

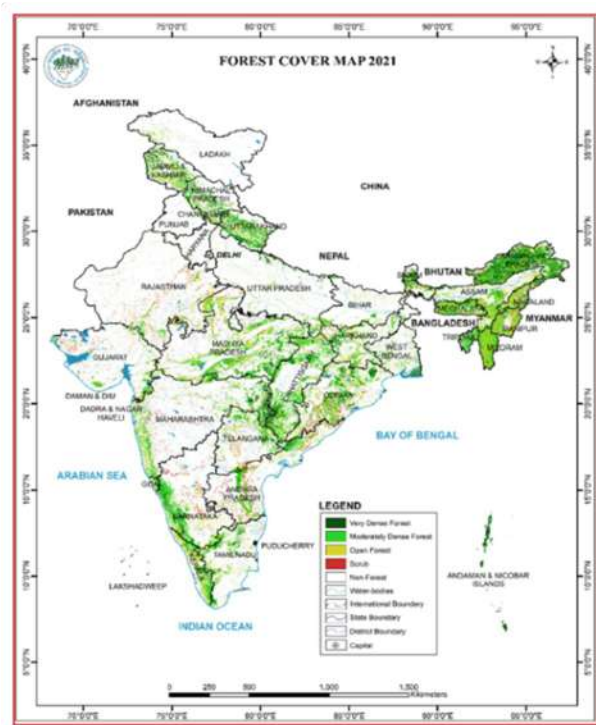


Fig.1 Forest Cover Mapping

### B. Monitoring of Forest fires and forest fire risk zonation mapping

- (i) Near Real Time Monitoring of Forest Fires: FSI has been alerting State Forest Departments of forest fire locations detected by the MODIS (Moderate Resolution Imaging Spectro-radiometer) sensor on-board Aqua and Terra Satellites of NASA since 2004. Since then, there has been continuous upgradation in the forest fire alert systems.
- (ii) The FSI Fire Alerts System 3.0 has the features like improved Custom Filter to boost accuracy level, Large Forest Fire monitoring programme to automatically identify and track large forest fires, Map Server based Van Agni Geo-portal to view dynamic display of alerts along with other thematic layers, availability of Web Map Service for integration with State Forest Departments geo-portal, Customized alerts to the State Forest Depart-

ments etc.

The number of near real-time forest fire detection for the period between November 2024 to June 2025 has been 2.38 lakhs for SNPP-VIIRS sensor. The FSI forest fire alert system is being used by more than 4.35 lakh registered subscribers across the country.

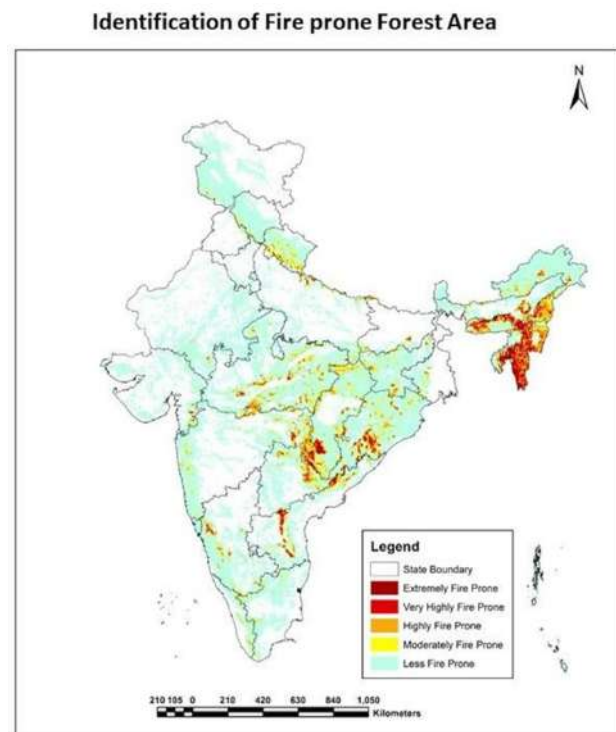
(iii) Large Forest Fire Monitoring:

FSI uses near real time SNPP-VIIRS detections to monitor large forest fire. In Large Forest Fire Monitoring System, FSI aims to track large fire events across the country and disseminate specific Large Fire alerts with the objective to identify, track and report serious forest fire detection so as to help monitor such fires at senior level in the State Forest Department and also seek timely additional assistance that may be required to contain such fires. During November 2024 to June 2025 a total of 14,609 large forest fires were detected.

(iv) Pre-Fire Alerts based on Fire Weather Index (FWI): Forest Type Layer information and Forest Fire Archival information are also being used to generate Forest Fire Danger Rating. During Fire season, the Extreme Risk and Very High Risk categories of Forest Fire Danger Rating are disseminated as Pre-Fire Alerts on every Thursday of week to State Forest Departments. Pre-Fire Alerts are disseminated through email as KML (Keyhole Markup Language) file which is Google Earth compatible file, to the Principal Chief Conservator of Forests & Head of Forest Force and Forest Fire Nodal Officer of the State Forest Department. The National Disaster Management Authority (NDMA), has conceptualized a Common Alerting Protocol (CAP) based Integrated Alert System for disasters at Pan-India level. FSI established as one of the Alert Generating Agency (AGA) since March 2023, is responsible for uploading Pre-Fire Alert data onto the SACHET

Portal. This data is subsequently broadcast to public as Pre-Fire Alerts by the respective State Disaster Management Authorities (SDMA) after assessing the local environment, climatic and other related factors.

(v) Study on identification of fire prone forest areas based on GIS analysis of archived information:



**Fig. 2 Map showing fire prone forest area in the country**

The map at Fig2 above is showing proneness of the area to forest fires can be an effective management tool for controlling forest fires. This proneness may be determined by the frequency of detected forest fires in an area over a certain period. These maps may be used for identifying highly prone forest fire areas so that future events of fire may be prevented through increased vigil.

(vi) Forest Fire Risk Zonation Mapping in West Himalayan States: A pilot study has been carried out for the West Himalayan States/UTs

comprising Himachal Pradesh, Uttarakhand, Jammu & Kashmir, and Ladakh to identify Fire Risk Zones and categorize them into different risk classes using suitable variables. The results have shown to have a good correlation with the fire detections, with majority of fire clusters falling under very high risk and high risk classes. It has been observed that the number of detections per unit area of each class in each State/UTs is highest in Very High Risk class followed by High Risk and Moderate Risk class.

(vii) FSI Van Agni Geo-portal

Forest Fire Geo-portal, VAN AGNI 3.0 ([http://vanagniportal.fsiforestfire.gov.in/fsi\\_fire/fire.html](http://vanagniportal.fsiforestfire.gov.in/fsi_fire/fire.html)) is an in-house development of FSI using open source software/tools like MapServer, which was launched in 2019. The Geo-portal provides user-friendly interactive viewing where the user can view forest fire related data (Near Real Time Forest Fire data, Large Forest Fire events tracking etc. along with other thematic layers such as Forest administrative boundaries, Forest Cover, Forest Type, Fire Prone Forest Area and FWI based fire danger rating etc. The details of Large Forest Fire Events showing active and inactive pixels and Forest Fire Danger Rating are also available on the portal.

**C. National Spatial Data Infrastructure (NSDI)**

National Spatial Data Infrastructure (NSDI) is a national program monitored by NSDI division of Department of Science and Technology to build consensus on harmonizing the available countrywide spatial database to a common set of standards, parameters and to minimize the disparity in data themes among various institutions, organizations across the country. In this regard, Forest Survey of India (FSI) has been identified as a partner institu-

tions and a member of working groups (WG) assigned with the important responsibility of creating theme layers pertaining to forest resources and their categories. FSI is working as the technical member for the working group of the National Data Registry (NDR). NDR Data node is accessible and functional with the allocation of Virtual Machine (VMs) to all the respective NDR node agencies including FSI for serving interoperable data/map services towards geo-spatial data integration.

**D. Decision Support System**

The Decision Support System (DSS) is a web based GIS tool, FSI, which provides qualitative, quantitative & administrative characteristics of forests, which help in informed, unbiased and expeditious decisions on management of forest. This system uses Rule based algorithm, which in turn uses several parameters derived from the spatial layers for identification of Inviolate and Not Inviolate areas. It is being used by the Ministry and its Regional Offices, State Forest Departments, and also by other Central Ministries / Organizations like Central Electricity Authority, Power Grid Corporation of India, Ministry of Power, Mineral Exploration Corporation Limited, Department of Hydrocarbon, National Highway Authority of India, Geological Survey of India etc.

**E. National Forest Inventory and Modernization of National Forest Inventory:**

The National Forest Inventory (NFI) design was adopted by FSI in the year 2002 to generate national level estimates on growing stock, forest area and other parameters of the forest resources. The whole country was divided on 14 physio-graphic zones and 60 districts were selected for survey spread all over the physiographic zone in a cycle of two

years in forest as well as in Trees Outside Forest. FSI redesigned the NFI programme from district based approach to grid based approach. Under the new design, whole country is divided into a nationwide uniform grids of 5 Km × 5 Km. Thus, the revisit time has been reduced from 20 years to 5 years for Forest Inventory and 10 years for TOF inventory.

#### **F. Trees Outside Forest Resources in India:**

A new methodology has been developed to estimate the Tree outside Forest (TOF) resources and the extent of TOF area in the country, under the present NFI design. The major species found therein has been assessed using the newly developed methodology. The potential annual yield from timber available in TOF has also been assessed. The ISFR 2023 is based on information of about 27,917 plots inventoried in forest areas and 62,074 plots inventoried in TOF area.

#### **G. National Working Plan Code (NWPC-2023):**

As per NWPC 2023, FSI has developed two applications namely (i) Android based Mobile Application for data collection in field, and (ii) Web Based Application (WBA) for data entry. The android based application has been placed at the google play store at: [https://play.google.com/store/apps/details?id=com.fsi.NFI&pcampaignid=web\\_share](https://play.google.com/store/apps/details?id=com.fsi.NFI&pcampaignid=web_share).

#### **H. Training-cum-Capacity Building Workshop:**

FSI has organised training for the officers working of the State Forest Departments, various academic & research institutes and also a training to the Forestry Officers of Kingdom of Tonga on “National Forest Inventory”:

#### **I. Forest Carbon Projects under NATCOM**

- i. FSI has been estimating carbon stock in the country’s forests on regular basis for various National Communications (NATCOMs) and providing valuable inputs to the Ministry in preparation of GHG inventory of the country.
- ii. The Central Empowered Committee (CEC) plays a vital role in supporting the Hon'ble Supreme Court's decisions on forest and environmental issues. Additionally, the CEC guides various stakeholders in complying with Supreme Court orders, promoting environmental protection and sustainable development. The details of report submitted by CEC to the Hon'ble Supreme Court are available on the website of CEC.
- iii. The Indian Forest and Wood Certification Scheme (IFWCS), branded as “PRAMAAN” (Program for Recognition and Accreditation of Sustainable Management Practices for Agroforestry and Natural Forestry Resources), is a national initiative to promote sustainable management of trees outside forests and other natural forests, and supply chain management of wood and non-wood forest products. This scheme is designed to enhance the integrity and transparency of India’s forestry practices, providing forest managers, farmers and the wood-based industry with a credible certification that improves access to domestic and international markets. By promoting sustainable practices, the IFWCS-PRAMAAN supports environmental and social goals while boosting economic opportunities for relevant stakeholders involved in the wood-based industry.
- iv. During the reference period from 01 January 2025 to date, IFWCS-PRAMAAN made substantial progress across governance, accreditation, standard-setting, capacity building, outreach, and certification implementation. Key multistakeholder meetings

of the IFWCS Technical Committee and IFWCC were convened, while the certification ecosystem was strengthened through notification of 51 Certification Bodies (CB), processing of five applications, and provisional approval of four CBs. Several critical normative documents were completed and approved, including forest and TOF management standards with universal requirements, accreditation and certification standards, group certification guidelines, product lists, trademark usage rules, and updated Chain of Custody standards. Digital infrastructure advanced with issuance of an RFP for portal development, approval of NIC hosting and VPN, and launch of an interim webpage on the IIFM website. Capacity-building efforts included auditors' training, compulsory IFS officer courses, and customised online trainings, complemented by strong outreach through major national expos and an India–UK international knowledge exchange workshop. On-ground certification activities progressed through multiple FM and TOFM pre-audits and main audits covering large forest areas across Andhra Pradesh, Maharashtra, Punjab, and proposals submitted to Madhya Pradesh, cumulatively marking significant institutional, technical, and operational achievements under the scheme.

- v. During the year, the references received regarding export/import of red sanders, agarwood, agarwood oil and sandalwood were processed and requisite inputs were provided to Directorate General of Foreign Trade, Ministry of Commerce & Industry, New Delhi in consultation with the States and CITES MA India.
- vi. Issues related to various proposal received from Department of Commerce on multilateral and bilateral trade negotiations including FTA and Trade of wood products

including tariff on wood products were critically analysed and the inputs and comments of MoEFCC were furnished to Department of Commerce/ Economic Division.

### **c. Progress/Innovations**

- Release of India State of Forest Report-2023 by Forest Survey of India, Dehradun.
- Launch of web based and mobile based NWPC-2023 App to use it for preparation of Working Plans by the States/UTs.

### **d. Continuing committees/commissions**

A High Level Technical Committee constituted under the Chairpersonship of Shri C. Achalendar Reddy on Red Oil Palm (ROP) plantation in Andaman and Nicobar Islands has already submitted the report. The Report has been filed before the Hon'ble Supreme Court.

### **e. Important conferences organized in India or international conferences**

A three member Indian delegation participated in the 61st Session of International Tropical Timber Council (ITTC) and sessions of its associated Committees. During the session, India highlighted the country's significant advancements in the sustainable forest management, Indian Forest and Wood Certification Scheme (IFWCS) and technological advancement in forest fire management. Bilateral meetings were held with International Tropical Timber Organisation (ITTO)

### **f. List of major Publications**

- India State of Forest Report-2023 by FSI: The report provides status of Forest Resources

## **6.7 Forestry Research**

### **1. Name of the Division: RT**

### **2. Name of the Scheme/Programme: Indian Council of Forestry Research and Education**

#### **a. Introduction and objectives**

Indian Council of Forestry Research and Education (ICFRE), an apex body in the national forestry research system, has been undertaking the holistic development of forestry research, education and extension covering all aspects of forestry. The Council deals with solution based forestry research in tune with the emerging issues in the sector, including global concerns such as climate change, conservation of biological diversity, combating desertification and sustainable management and development of resources.

### Objectives of ICFRE

- To undertake, aid, promote and coordinate forestry research, education and extension leading to scientific and sustainable management of forest resources in the country.
- To align forestry research programs in the council with national priorities including achievement of Sustainable Development Goals and combating climate change.
- To provide scientific advice and policy support to the central and state governments aiding informed decision making in forestry matters of national importance and international commitments.
- To act as a repository of scientific knowledge related to forestry, environment and climate change, and disseminate such knowledge to various stakeholders including forest dependent communities and also provide consultancy and capacity building services in environment and forest sector.
- To provide technical assistance and support to states, forest-based industries, tree growers, farmers and others for forest protection, afforestation, agro-forestry and allied activities.
- To develop appropriate forest based technologies, processes and products for sustainable resource use, livelihoods and economic growth.
- To promote forestry education in the country and facilitate universities in improving quality through technical and financial support includ-

ing development of uniform curricula.

- To conduct other activities incidental and conducive to attainment of forestry related objectives, which the council may consider necessary.

### b. Important activities undertaken

- The 31st Annual General Meeting (AGM) of ICFRE was held on 6th October 2025 under the chairmanship of Shri Bhupender Yadav, Hon'ble Minister, MoEF&CC. The meeting was attended by the DGF&SS, MoEF&CC; DG, ICFRE and other members of the Society.



**Hon'ble Minister Chaired 31st AGM of ICFRE**

- The Parliamentary Consultative Committee headed by Shri Bhupender Yadav, Hon'ble Minister, MoEF&CC along with Shri Kirti Vardhan Singh, Hon'ble Minister of State, MoEF&CC and six Hon'ble MPs visited the ICFRE-IFGTB, Coimbatore on 23.01.2025.



**Hon'ble Minister, MoEF&CC reviewing the activities of ICFRE-IFGTB**

- Shri Giriraj Singh, Union Minister of Textiles, visited ICFRE-FRI, Dehradun from 20–21 April 2025 and held a meeting with the officials of ICFRE-FRI. The meeting was attended by Shri Ganesh Joshi, Minister for Agriculture and Farmers Welfare, Uttarakhand; DG, ICFRE; and Director, ICFRE-FRI, Dehradun.



**Visit of Hon'ble Union Minister of Textile at ICFRE -FRI**

- On the occasion of Yoga Day 2025, ICFRE-FRI, Dehradun organized a Harit Yoga session. The Chief Guest, Shri Tokhan Sahu, Hon'ble Minister of State, Government of India, performed yoga along with participants from ICFRE, ICFRE-FRI, IGNFA, CASFOS, DFE, and KV FRI.



**Harit Yoga Session at ICFRE-FRI**

- Sh. Tanmay Kumar, IAS, Secretary, MoEF&CC alongwith AS&FA, ADG (WL) & DIG (RT) visited ICFRE & reviewed activities of council & CoE-Sustainable Land Management on 08.01.25. DG, ICFRE and other ICFRE officials were present in meeting.



**Visit of Secretary, MoEF&CC at ICFRE**

- ICFRE, Dehradun organized the First Quarterly Meeting of NIRANTAR of MoEF&CC, GoI at ICFRE-RFRI, Jorhat on 19-05-2025. Smt. Kanchan Devi, IFS, DG, ICFRE chaired the meeting which was attended by Directors, Officers, Scientists of different organizations under MoEF&CC, GoI.



**First NIRANTAR Meeting at ICFRE-RFRI**

- On the occasion of the World Day to Combat Desertification and Drought 2025, MoEF&CC, organized a one-day national workshop on Strategies for Combating Desertification and Drought”at ICFRE-AFRI, Jodhpur. The event was graced by the Union Minister, MoEF&CC, Shri Bhupender Yadav, as Chief Guest in august presence of Union Minister, Tourism and Culture, Shri Gajendra Singh Shekhawat and Member of Parliament (Rajya Sabha), Shri Rajendra Gehlot.



**Workshop on Strategies for Combating Desertification and Drought**

- ICFRE conducted workshop in-collaboration with NAEB on “Implementation Workshop on DPR for Rejuvenation of major Indian River Systems through Forestry Interventions” under the chairmanship of DGF&SS, MoEF&CC on 25.04.25. DGF&SS & senior officers from MoEF&CC, MoJS, ICFRE were present.



**Workshop on Implementation Workshop on DPR for Rejuvenation of major Indian River Systems through Forestry Interventions**

- To commemorate 150 year of Vande Mataram, ICFRE and its institutes organized a National Song recitation session. A tree plantation drive was also conducted across the country to mark the occasion and promote environmental awareness.



**Recitation on Vande Mataram Song at ICFRE, Dehradun**

- DG, ICFRE, Smt. Kanchan Devi attended FAO Workshop on "Protocol for QPM Certification, Accreditation of Agencies for certification of Nurseries and Online System for QPM production" as Special Guest of Honor.



**DG, ICFRE addressing FAO organized workshop on "Protocol for QPM Certification Accreditation of Agencies for Certification of Nurseries & Online system for QPM production"**

- ICFRE - IFGTB participated in the fifth World Teak Conference, hosted by KFRI & coordinated by International Teak Information Network India at Cochin, Kerala during 17-20 Sept.2025. Smt. Kanchan Devi, IFS, Director General, ICFRE, Dehradun delivered a special address in the Conference.



**DG, ICFRE delivered a special address in the fifth World Teak Conference**

- ICFRE and ICIMOD jointly organized workshop on “Human–Wildlife Conflict & Coexistence in the Western Himalaya” from 17th to 19th December 2025 at Rajaji Tiger Reserve, Chilla, Dehradun. 30 participants from Uttarakhand State Forest Department, Uttarakhand

Van Panchayats, ICFRE, ICIMOD, IUCN, WII, NGOs and Nepal Forest Department participated in the programme.



**Workshop on Human–Wildlife Conflict & Coexistence in the Western Himalaya**

- The XXV Meeting of the Research Policy Committee (RPC) of ICFRE was held from 24-25 February 2025 during which 39 new projects and 108 ongoing projects for continuation were approved for the year 2025-26.
- Organized five Regional Research conference:
  - Ensuring Quality Planting Material (QPM) for sustainable Forestry: Standards, Sources & Practices at ICFRE-TFRI, Jabalpur
  - TREES-2025: Tree Improvement: Realizing Enhanced Productivity and Enabling Sustainance -2025 at ICFRE-IFGTB, Coimbatore
  - Forestry interventions for inclusive and sustainable economic growth at ICFRE-IFP, Ranchi.
  - Ecological impacts of shifting cultivation: Research and Mitigation Strategies at ICFRE-RFRI, Jorhat
  - Role of Urban Forestry and Community Engagement in Building Climate Resilient cities at ICFRE-FRI, Dehradun.
- Under Green Credits Programme, MoEF&CC has revised the methodology for calculation of green credit in respect of restoration of de-

graded forest land and modalities to take up tree plantation on degraded forest lands. At initial stage, voluntary eco-restoration cum tree plantation is envisaged on degraded land under the control and management of Forest Departments. A total of 4391 ha (225 land parcels) of degraded forest land across the states is under restoration under GCP.

- Ten National Outreach Workshops covering 31 AICRPs and 2 FGR projects were organized across ICFRE institutes from 17 July to 29 August 2025.
- Accredited Forestry courses of Department of Forestry, North Eastern Regional Institute of Science & Technology, Nirjuli, Arunachal Pradesh.
- ICFRE and its institutes organized Behavioral Training session under Phase-2 of Rastriya Karmayogi Jan seva Programme for its employees.
- Released 287 Forest Soil Health Cards for various forest divisions of Jharkhand, West Bengal, Bihar, Assam, Tripura, Rajasthan, Dadra Nagar Haveli and Daman & Diu, Gujarat, Goa, Mizoram, Nagaland, Odisha, Kerala, Lakshadweep and Andaman & Nicobar Islands.
- Established 04 New VVKs at Navsari (Gujarat), HNB, Garhwal University, (U.K), Sambalpur Research Range, Odisha and Indore, Madhya Pradesh; two new Demo Village at D. Gudalur, Dindigul district (T.N.) and Nagpur, District Pratapgarh (U.P.) and; organized 16 Tree Growers Mela/Institute Industry Meet across the country. About 3375 satkeholders participated in these Mela.
- For stakeholders, 225 trainings were organised, reaching 5577 participants under diverse themes such as forest and nursery management, silviculture, genetics and tree breeding, HPLC, chromatography, climate change, biodiversity and Environment Management etc. In addition, 25 radio talks were delivered through All India Radio greatly extending outreach beyond for-

mal training venues.

- In 2025, 267 ICFRE employees registered on the iGOT Karmayogi portal, actively engaging in continuous capacity-building efforts. Throughout the year, a remarkable 7,610 courses were completed by these employees.
- The Prakriti Programme added a strong youth and education dimension, with 95 activities connecting 10,853 students directly to scientists and the world of forests and biodiversity.
- Implementation of Rajbhasha Hindi
  - ICFRE (HQ) and its Institutes conducted 27 quarterly Hindi workshops / trainings in this period, as per the Annual Programme of the Department of Official Language.
  - ICFRE (HQ) and its Institutes observed Hindi Day/Week/Fortnight in September 2025, organizing various competitions and activities to promote Rajbhasha Hindi.
  - ICFRE-RFRI, Jorhat received the First Prize from TOLIC, Jorhat for excellence in promoting Hindi (2023–24) on 6th February, 2025. Similarly, ICFRE-TFRI, Jabalpur was also awarded doing outstanding work in Hindi by TOLIC, Jabalpur on 31st July, 2025. In addition, ICFRE-AFRI, Jodhpur received the Second Prize for excellent performance in promoting Hindi from TOLIC, Jodhpur on 20th August, 2025.

### c. Progress / Innovations

- From the research on Casuarina, Clone CH5 emerged at the superior clone in term of height & girth for all India release.
- A farmer's variety of Melia dubia GK 10 was registered with PPV&FRA, GoI, New Delhi under Extant (Variety of Common Knowledge) category for a protection period of 18 years.
- Under Tree improvement Programme following activities were carried out:
  - Established two clonal trials of casuarina at Chandwa & Arid (Ranchi), Jharkhand
  - Created clonal multiplication areas (CMAs)

of Bamboos at ICFRE-IFP campus (52 species) and at Mandar (18 species).

- Identified 215 superior plus clumps of 17 bamboo species.
- One Vegetation Multiplication Garden (VMG) of *Madhuca longifolia* consisting of 60 CPTs was established. Also produced more than 150 grafts of CPTs.
- 20 CPTs of *Schleichera oleosa* were identified out of 99 CPTs across eastern India. Also produced more than 50 grafts of CPTs.
- Established field gene bank of targeted six FGR Species viz. *Buchanania cochinchinensis*, *Haldina cordifolia*, *Petrocarpus marsupium*, *Litsea glutinosa*, *Sterculia urens*, *Boswellia serrata*.
- Demonstration plot of *Gardenia resinifera* is established in Field Research Station at Murlu.
- VAN VISTARA - Database Management System for Forest Genetic Resources of India was launched by ICFRE-IFGTB, Coimbatore. It was developed under the National Program for Conservation & Development of FGR.
- Prepared bamboo flowering database of North East India. Secondary data on bamboo flowering were collected and compiled for 40 bamboo species from NE India.
- Standardized cultivation practices for *Desmodium gangeticum*, *Dioscorea deltoideia* and *Diploknema butyracea* through application of different growing media.
- Documented traditional harvesting techniques of different NTFPS and developed sustainable harvesting protocols for *Diploknema butyracea* fruit, *Dioscorea deltoideia* rhizome, *Valeriana jatamani* rhizome, *Myrica esculenta* and *Prunus cerasoides* bark.
- Standardised post-harvest management processing and value addition techniques of *Diploknema butyracea*.
- Standardized colour based seed maturity markers, seed handling and seed extraction methodology and developed species specific seed storage protocols for 18 forestry species namely *Acer pictum*, *Albizia odoratissima*, *Diospyros tomentosa*, *Salix tetrasperma*, *Erythrina suberosa*, *Heteropanax fragrans*, *Machilus odoratissima*, *Sterculia villosa*, *Toona serrata*, *Quercus glauca*, *Stereospermum suaveolens*, *Litsea chinensis*, *Alnus nitida*, *Kydia calycina*, *Tsuga dumosa*, *Albizia julibrissin*, *Premna latifolia* and *Pterospermum acerifolium*.
- Developed three site-specific bamboo-based windbreak model plantations and their management practices by using three bamboo species namely, *Thyrsostachys oliveri*, *Bambusa balcooa* & *B. polymorpha* in South Tripura (01 model plantation) and West Tripura (02 model plantations).
- Developed the first Long term Ecological Plot (LTEMP) in Mangroves at Pichavaram, Cuddalore District, (Ramsar Site) Tamilnadu. Over 3000 individuals belonging to 12 taxa have been enumerated in an area of 1.25 ha. The long term ecological monitoring plot provisions data on soil matrix changes, hydrological fluxes and biometeorology factors.
- Reported new tuber species - *Tuber asiaticum* sp. nov. a true truffle species from Indian Himalaya.
- Banana pseudo stem successfully used for the



Periodical data collection in the first LTEMP at Pichavaram (Ramsar Site), Cuddalore District, Tamilnadu.

manufacturing of flat panels. The product developed satisfies the moisture resistant grade properties.

- *Trichoderma frianum* sp. a new taxon within the Harzianum clade, is discovered through detailed morphological and phylogenetic analyses. The taxonomic novelty has been registered with MycoBank under MB857520. Notably, *T. frianum* exhibits tolerance to high salinity and demonstrates strong in vitro antagonistic activity, effectively inhibiting the growth of several pathogenic fungi affecting Eucalyptus, including a recently discovered highly pathogenic species *Calonectria eucalyptorum* (MB853568), *Neofusicoccum mangiferae*, *Botryosphaeria dothidea* and *Lasiodiplodia iraniensis*, underscoring its potential for bio-control applications and stress tolerance in forestry ecosystems.
- A test methodology for evaluating the fire performance of wooden frame sections was developed. Based on the experimental results, design concepts for the effective utilization of timber combined with inorganic fire-resistant barriers were developed.



Intact sample after burning (with fastener)

- Plywood passing MR grade as per IS: 848-2006 and particle board as per IS 3087 for Grade -2 with zero formaldehyde emission was developed. Biological durability studies against fungus study showed the durability similar to existing MR grade resin.
- Fabricated Box Type bamboo connector of dimension 190mm x 190mm x 110mm depth, Inner Ring Connector of diameter 180mm, 6mm thick and 50mm depth having bored holes diagonally opposite with ball and socket movement at 45 degree has been prepared.



Disintegrated sample after burning (without fastener)

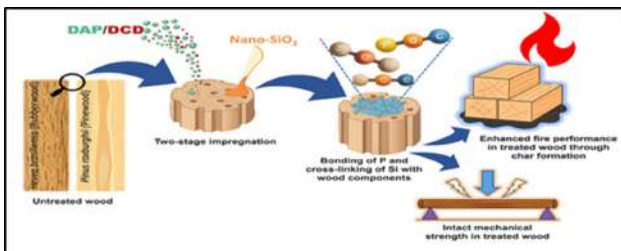


Ring Connector fixed on top of Bamboo Connector



Arrangement of Bamboo Connectors with the circular Ring

- Rubber wood (*Hevea brasiliensis*) and Pine wood (*Pinus roxburghii*) were treated with fire retardants (FRs) chemicals. Samples with NS2.5/DAP20/DCD3 impregnation demonstrated an excellent flame retardancy with a UL-94 V-0 rating. Based on the mechanical properties, thermal stability, and flammability results, this study confirmed an excellent synergy between nitrogen-phosphorous compounds and nano-SiO<sub>2</sub> as FR.
- Developed a Bamboo Museum and Interpretation Centre at ICFRE-RFRI, Jorhat.



Graphical abstract demonstrating impregnation of nitrogen-phosphorous FR along with nano-SiO<sub>2</sub> to keep the strength properties of timber intact

- Established an Upgraded Tissue Culture Laboratory & Compositing at ICFRE-RFRI.
- An automatic digital water level recorder (DWLR) has been installed at Dihing Patkai Watershed, Jeypore Forest Range to regularly monitor the water level of the Dihing River as it flows through the tropical forested catchment



Installation and Monitoring of Water level at Dihing Patkai Watershed

- ICFRE-LEC, Agartala has developed and released 'Biochar-enriched Compost'.



**Biochar-enriched Compost releasing by ICFRE-LEC, Agartala**

- Bio-fertilizer Products namely “N-fixer”, Rhizored, K-mobiliser and Bioreclaimer using pure cultures of different beneficial microbes for the biomass enhancement of selected commercially important tree crops developed by ICFRE-IFGTB.

#### Biofertilizers



- Conducted a training programme on *Momordica dioica* (Kankonda) Pickle Preparation

- for members of the Shivaji Rajeevika Farmer Producer Group, Malera, and Moras Van Dhan Vikas Kendra, Panchayat Gharat, Tehsil Pindwada, District Sirohi, Rajasthan. The SHG subsequently obtained FSSAI Certification for the product (Lic. No. 22223050000223).
- Through scientific interventions, the sacred legacy of the Holy Bodhi Tree has been safeguarded. As a result, the tree remains in excellent health and continues to inspire millions around the world.
- Detailed Project Report (DPR) for rejuvenation of Subarnarekha and Damodar rivers through forestry interventions detailing the project scope, intervention models, and budget estimations has been completed and submitted to MoEF&CC for approval.
- Prepared 09 documentaries on; TGM conducted at Jorhat and Agartala (2); Tree Outside Forests in UP; New species introduction Agar, Bamboo, Chandan; Eco-restoration through forestry interventions; Soil Health Booster Developed by HFRI Shimla; Bio-pesticides products Developed by HFRI Shimla; Medicinal Plants Varieties of Important High Hill Temperate Medicinal Plants Developed by HFRI Shimla and New TFRI documentary.
- Products developed:
  - Phenol Lignin Formaldehyde Resin / Adhesive using lignin obtained for cotton stalk and Julia flora.
  - Banana stem Fibre Board.
  - Fire Retardant Door (FRD) for 120-minutes fire rating.
- Patent Granted:
  - A method for deacidification of oil.
  - A Synergistic Composition for Fabrication of Veneer Wood Composite Board and Method thereof.
  - A method for deacidification of oil.
- Patent applied:
  - Flame retardant bamboo mat based composites and preparation method thereof.
  - An immunomodulatory jelly formulation and

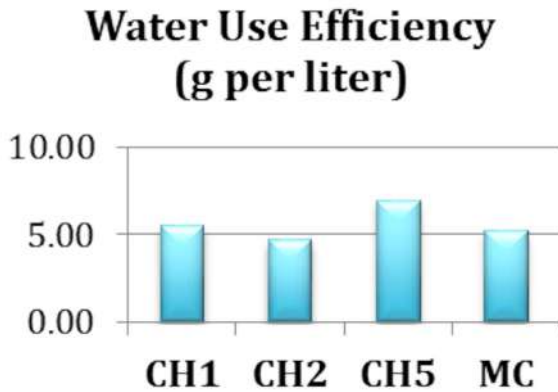
- method of preparing the same
- Ganoderma lucidum extract and potato peel-derived starch based edible film.
  - Flame retardant bamboo mat based composites and preparation method thereof.
  - A lip balm formulation and method for preparation thereof.
  - A mosquito repellent formulation and the method for its preparation.
  - A cleaning solution and method for its preparation.
  - A soap composition and the method of its preparation.
  - A lotion composition from natural fatty oil and the method for its preparation.
  - Formulation of soap from natural fatty oil and method for its preparation thereof.
  - Innovative inoculation formulations for agarwood induction.
  - Shoe polish formulation.
- Trademarks:
    - Five Trademarks were filed for Him Mrida Sanjeevani-1, Him Growth Booster, Him Biokil, Him Albiwash and, Him Trichokawach.
  - Six non exclusive licence agreements were signed with:
    - M/s Mukund Biotech, Jabalpur for the mass multiplication of teak (*Tectona grandis*) clones and CPC of Bamboo (*Bambusa tulda*, *B. balcooa*) for supplying to the stakeholders (Two MoU's) by ICFRE-TFRI, Jabalpur.
    - M/s DevleelaBoitech, Raipur for Bambusa balcooa for mass multiplication of QPM and supply to stakeholders by ICFRE-TFRI, Jabalpur.
    - M/s Eco Harvest Carbon Alliance, Kanpur (U.P.), M/s Brinda Agro, Shamli (U.P.), and M/s Beej Tech Growery, Meerut (U.P.) for the commercial multiplication of improved *Melia dubia* (Malabar Neem) and Neem varieties by ICFRE-FRI, Dehradun.
  - Tissue cultured clonal teak (five phenotypes) traceable to GI Nilambur populations have been tested in the states of TamilNadu, Kerala, Maharashtra, Gujarath, Telengana, Andhra Pradesh, Chhattisgarh and Madhya Pradesh. Analysis of India teak population (125 individuals) through genomic wide association (71 SNPs) led to comprehend wood and disease resilience. Teak Genes Database (TGD) was developed as a comprehensive teak genetic data management resource.
  - A germplasm repository of 150 *Dalbergia sissoo* individuals from diverse agroclimatic zones of Uttar Pradesh, Madhya Pradesh, Haryana, Punjab, Rajasthan, Himachal Pradesh and Uttarakhand was established at FRI Dehradun. A VMG comprising 86 genotypes was also created.
  - Under native trees improvement program, extensive surveys were conducted in Kerala and identified 50 Candidate Plus Trees (CPTs) of *Mitragyna parvifolia* based on superior growth and tolerance to pests and diseases. Established broad genetic base progeny trials of *Mitragyna parvifolia* (Thuvarankurichi, Tamilnadu) and *Haldinia cordifolia* (Salem, Tamil Nadu).
  - Established two germplasm banks of nine tree species preferred by tree farmers under trees outside forest program. Resources of *Santalum album*, *Pterocarpus marsupium*, *Pterocarpus santalinus*, *Casuarina spp.*, *Melia dubia*, *Tectona grandis*, *Gmelina arborea*, and *Swietenia mahagoni* have been assembled at Erode, Namakkal, Coimbatore, and Salem Forest TNFD Extension Centres. Also, species specific field gene banks of bamboo and Red Sanders were established at the FGR Field Gene Bank stations at Tiruvannamalai and Thuvarankurichi in collaboration with TNFD.
  - Successfully established germplasm banks of *Pithecellobium dulce* and *Limonia acidissima* at Panampally (0.25 ha) Kerala and at Neyveli (0.5ha) and Gudalur (0.4 ha) in Tamilnadu.

#### d. Important Cumulative achievements

- Established a FGR field gene bank of 10 FGR species at Tiruvannamalai in 0.7 ha each at 4mx3m spacing - *Strychnos nux-vomica*- (5 populations/100 accessions) , *Cieba pentandra* (5 populations/100 accessions), *Sweitenia mahagoni*- 3 populations/100 accessions), *Chloroxylon sweitenia* (2 populations with 100 accessions each) , *Aegle marmelos* (2 populations with 100 accessions each), *Neolamarckia cadamba* (3 populations with 100 accessions each), *Saraca asoca* (1population/100 accessions), *Sapindus emarginatus*- (3populations/100 accessions each), *Artocarpus heterophyllus* (1 population/100 accessions) *Ailanthus triphysa*- (3 populations/100 accessions).
- Evaluated superior trees each of *Pyrus pashia* (Kainth) and *Ficus palmata* (Bedu) across Uttarakhnad, Punjab, Haryana, and Uttar Pradesh to assess their distribution, regeneration, productivity, and value-addition potential. *Pyrus pashia* was most abundant in Uttarakhnad, with the highest density (110 trees/ha) at Kulsari, Chamoli while regeneration in Haryana and Punjab remained poor. *F. palmata* showed wider distribution and healthier regeneration particularly in Pauri (Uttarakhnad) and Pilibhit (Uttar Pradesh). Maximum fruit yields reached 55 kg/tree in *P. pashia* and 40 kg/tree in *F. palmata*. Nutritional composition varied regionally with Uttarakhnad fruits showing higher moisture and sweetness and Punjab fruits richer in protein and fat. Germination trials indicated strong GA<sub>3</sub> response and better growth under 50-90% shade and soil–sand–FYM media.
- Pathogenicity testing identified the A3 isolate of *Fusarium* sp. as most virulent and suitable for mass screening. Based on disease symptoms, genotypes were classified as resistant, moderately resistant, and susceptible. Sixteen genotypes (e.g., DFRI-1008, DFRI-5008, DFRI-9065-1, DFRI-031, DFRI-528, DFRI-14) showed minimal or no symptoms and are recommended for plantations in wilt-prone areas and for resistance breeding. Moderately resistant genotypes (e.g., DFRI-5018, DFRI-024, DFRI-9063-1) exhibited partial tolerance. Seven genotypes, including DFRI-9058-2, DFRI-169, and DFRI-5009, were highly susceptible, showing severe systemic wilting.
- Field trials were established in different agroclimatic zones of Tamil Nadu by planting indigenous green leaf manure tree species - *Pongamia pinnata*, *Azadirachta indica*, *Gliricidia sepium*, and *Thespesia populnea* as hedge rows. Among the evaluated species, *Gliricidia sepium* demonstrated superior adaptability and performance in sodic soils. The combined application of *Gliricidia* loppings, farmyard manure (FYM), and gypsum significantly improved organic carbon, nutrient availability, reduced Exchangeable Sodium Percentage (ESP), and increased soil carbon sequestration.
- Water use efficiency (WUE) of *Casuarina* Hybrid (CH) clones was evaluated using a Sap Flow Meter. The study was carried out in a four-year-old clonal trial of *Casuarina* Hybrids established at TNPL Unit–I, Karur, Tamil Nadu. Among the four hybrid clones evaluated, CH5 exhibited the highest water use efficiency with a mean WUE of 6.94 g of stem wood produced per litre of water uptake, followed by CH1 (5.52 g per litre) and CJ1 (5.20 g per litre). Clone CH2 showed the lowest efficiency, recording a WUE of 4.69 g per litre. The identified differences in water-use efficiency among *Casuarina* hybrid clones are particularly significant in the context of the Government of India’s vision of “more crop per drop,” which emphasizes maximizing productivity with efficient water use.



Recording of water uptake through Sap Flow Meter



Variation in Water Use Efficiency of *Casuarina* Hybrid clones

- In *Eucalyptus camaldulensis*, six putative EcHKT1; 1 base-edited events and 5 putative EcHKT1;1 gene knockouts, along with 22 control events, have been generated. These need to be characterized for gene edits and salt tolerance. Candidate GA2ox gene editing targets for fast growth were identified for designing gRNA. For improving pulping traits, the F5H gene and C4H promoter were PCR amplified for cloning into the pCAMBIA1305.2 plant expression vector.
- The Maxent predictions of *Pterocarpus santalinus* distribution coincided with the known distribution of the species and has identified some potential habitats. *P. santalinus* has been reported only from dry deciduous forests of southern parts of Eastern Ghats. The present study has identified some habitats having similar environmental conditions beyond the natural range of the species in the southern parts of Eastern Ghats. These predicted habitats in the northern parts of Andhra Pradesh bordering Odisha, eastern sides of Western Ghats in Karnataka and some patches in Assam and Tripura may be used as guide in future commercial plantation programmes in the species.
- Traditional agroforestry systems were documented across cold desert regions of Himachal Pradesh and Ladakh Union Territory. The most preferred agroforestry species under different traditional agroforestry systems in cold desert areas are *Populus nigra*, *Salix alba*, *Prunus armeniaca*, *Elaeagnus angustifolia* and *Juniperus polycarpos*. The ecological niche modelling of preferred agroforestry species under traditional agroforestry systems revealed that the total potential suitable area for the occurrence of *Salix alba* is ~ 19,073 km<sup>2</sup>, *Populus nigra* is ~16501 km<sup>2</sup>, *Prunus armeniaca* is ~ 11,443 km<sup>2</sup>, and *Malus pumila* is 5325 km<sup>2</sup>. 5000 quality planting stock of preferred agroforestry species were raised at Model Nursery, Baragaon, Field Research Station, Tabo and FRS, Leh for distribution to local farming communities.
- The *Flemingia* based agroforestry models viz. *Flemingia*-Marigold and *Flemingia*-Maize have been established at Roro, Khunti. At New Bhusur and Lalgutwa *Flemingia*-Papaya agroforestry model has been established. *Flemingia* based agroforestry model viz. *Flemingia* - cabbage, *Flemingia* - cauliflower, *Flemingia*-Chili, *Flemingia* - Tomato, *Flemingia* - Maize, *Flemingia* - Faba-bean etc. have been established at Roro, Khunti.
- In Bandhavgarh and Kanha tiger reserve, three grassland categories such as swamp, natural dry meadows, and village-relocated dry meadows were systematically assessed using forty-

five 0.1 ha tree quadrats and 180 herbaceous quadrats. In Bandhavgarh Tiger Reserve, phyto-sociological analysis showed clear differences between control and ingressed sites: control areas were dominated by *Shorea robusta*, *Diospyros melanoxylon* and *Madhuca indica*, whereas ingressed sites showed higher presence of *Butea monosperma*, *Buchanania lanzan* and *Terminalia tomentosa*, indicating encroachment of forest-edge species into grassland habitats.



Laying Out of Quadrat

- An extensive field surveys were conducted in all three agro climatic zones of Chhattisgarh Forest division and geo-tagged more than 125 individuals of *Cordia macleodii* (Dahiman), a critically endangered tree species. Seeds were collected from Korla (CG), Sagar (MP) and Pune (MH) forest divisions. Vegetative propagation of Dahiman was very negligent, sprouting was found maximum 22% but there was no rooting success. A vegetative multiplication garden was established in TFRI campus with 90 plants.



Seedling growth in *C. macleodii* Root rot in seedlings  
Mass multiplication of *C. macleodii*

- Fruits and seeds of *Phanera vahlii* were studied at different developmental stages. The study reveals that *P. vahlii* fruits and seeds undergo significant morphological and physiological changes, with seeds attaining maximum viability, germination ( $\approx 75-80\%$ ), and vigour between 330–360 DAA. Nursery trials showed 15-20% higher germination in *P. vahlii* using 0.5% thiourea and 10% acid scarification. Storage studies confirmed orthodox seed behavior in *P. vahlii*. Viable germplasm was conserved in an ex-situ seed gene bank to support long-term conservation and utilization.



**Fruit maturity stages and seed germination and pretreatment trials in *P. vahlii***

- Studied haustorium induction factor and effect of 2, 6-dimethoxy-p-benzoquinone (DMBQ) on growth and prehaustoria formation in seedlings of *Santalum album*. DMBQ at 1000  $\mu\text{molL}^{-1}$  significantly increased the seedling growth including shoot length (12.05%), root length (24.91%), collar diameter (17.41%), number of leaves (21.51%), leaf surface area (19.85%), chlorophyll content index (11.21%) and pre-haustorium formation (21.67%) after two months of treatment compared to the control.
- Achieved success in cloning *P. santalinus* by adopting a novel approach where coppice shoots arising from *P. santalinus* stumps were successfully rooted using air layering technique. The technique was optimized for diameter of shoots (10-15 mm dia), media (coir pith), hormone concentration (IBA 1000 ppm) and method of hormone application (spray method). The overall multiplication rate through this technique was 60%. Also, the study was successful in cloning the selected plus trees through cleft grafting, where a success rate of 47% could be achieved.
- The efficiencies of powdered seeds of *Caesalpinia bonduca* (Gataran), *Hyptis suaveolens* (Van Tulsi) and *Butea monosperma* (Palash) were tested as natural water treatment agent's alternative to the use of synthetic chemicals. Each species seed powder showed promising results across various water quality parameters. Electrical Conductivity (EC) dropped by 16.7% with *H. suaveolens* at 150 mg/L and 17.6% with *C. bonduca* at 300 mg/L. Total Dissolved Solids (TDS) were reduced by 23.1% with *B. monosperma* at 150 mg/L and 20.8% with *H. suaveolens* at 250 mg/L. Ammonia ( $\text{NH}_3$ ) concentrations were reduced by 50% with *B. monosperma* at 100 mg/L and by 80% using *H. suaveolens* at 250 mg/L while nitrate ( $\text{NO}_3^-$ ) levels dropped by 50% when treated with *C. bonduca* at 150 mg/L and 60% with *B. monosperma* at 200 mg/L.
- Bioefficacy experiments on major pests revealed that Spinosad 45% SC and Azadirachtin (0.05%) consistently provided the highest control against key defoliators such as *Hyblaea pures*, *Eutectonae machaeralis*, *Plecoptera reflexa*, *Papilio demoleus*, and *Hasora chromus* as well as sucking pests like thrips. Neem and Karanj oils demonstrated moderate but consistent antifeedant and deterrent effects, while *Beauveria bassiana* and other microbial formulations showed slower, complementary action suitable for eco-friendly IPM integration.
- Biosafety experiments were carried out under laboratory conditions to determine the effects of *Cleistanthus collinus* nanoemulsion on various beneficial insects, including the egg para-

sitoid *Trichogramma raoi*, adults of *Canthcona furcellata*, larvae of *Chrysoperla zastrowi sillemii*, and honey bees (*Apis mellifera* and *Apis cerana indica*). The results indicated that the nanoemulsion was largely safe for all tested non-target species. *T. raoi* recorded high adult emergence (92.3%–74.5%) and parasitization rates (85.4%–68.3%). Mortality in *C. furcellata* adults remained low (8.4%–22.6%), and larvae of *C. z. sillemii* exhibited high survival (77.4%–91.6%). Honey bees showed negligible mortality (5.8%–18.2% at 24 HAT), confirming that the *C. collinus* nanoemulsion poses minimal risk to non-target beneficial organisms.

- Established green belt around ash pond in about one ha area with nine indigenous species at Koderma Thermal Power Station.



Plantation at Ash pond of KTPS Koderma

- Miyawaki plantation for eco restoration over 03 ha area in Amrapali Mine, Chatra, Jharkhand initiated with composition of more than 56 indigenous species. A total of 60000 plants have been planted till date. Documentary on 'Miyawaki plantation in Amrapali, Chatra, Jharkhand' has been prepared.



After 6 month of Miyawaki plantation at the Amrapali



Overview of Miyawaki plantation after 6 month at the CCL Amrapali

- As part of the ecological restoration efforts, a total of 17,067 plants were planted across 15 staggered sites, covering an area of approximately eight hectares at mined-out area of Meghahathaburu Iron Ore Mine. This includes 14,924 trees and 2,143 shrubs.
- Prepared 150 L Plant Growth-Promoting Rhizobacteria (PGPR) for Meghalaya Forest Department and also performed PGPR application with the field workers.



Preparation of PGPR Field demonstration during application of PGPR

- The construction concept by using the species *Azadirachta indica* (Neem wood) for the manufacture of 60 minutes fire retardant door was optimized and demonstrated on commercial scale. The shutter manufactured in the factory conforms to 60 minutes of rating as per IS:3614.
- e. **Continuing committees / commissions** - their work during the year and present position.
  - ICFRE is the Vice-Chair for Asia Pacific Association of Forestry Research Institutions (APAFRI); Co-Chair for Asia Pacific Forest Genetic Resources Programme (APFORGEN); Country Head for International Union of Forest Research Organizations (IUFRO) and; National Focal Point for Food and Agriculture Organization (FAO) & Asia Pacific Forest Genetic Resources Programme (APFORGEN).
  - Assistant Director General (Media and Exten-

sion), ICFRE is a member of “Scientific Committee for Centre for Fruitful India”.

- Scientist from ICFRE-IWST attended meeting of CED 46- P:6 (timber and Bamboo; Engineered Timber (Timber wood) and Bamboo), CED 20 and Course content on Indian Standards on Plywood and Block Boards" of National building code of India by BIS.
- ICFRE-FRI is a member of, the Sectoral working group on “Forestry and biodiversity” and “Himalayan Ecosystem” to prepare India’s Adaptation Communication to the UNFCCC , High-Power Committee constituted by Hon’ble Supreme Court on Char Dham Pariyojana, Member of the Multi-Disciplinary Committee to oversee the implementation of the suggested safeguard measures at the 60 MW Mori Hydroelectric Project, Uttarkashi, Uttarakhand and Nodal Officer and Working Group member for preparation of National Environment Forest and Climate Disaster Management Plan (NEFC-DMP)
- Director ICFRE-FRI is Chairman of HPC on Baliyanala treatment plan as per directives of Hon’able High Court of Uttarkhand.
- Director ICFRE-FRI Nominee in the National Steering Committee for the Preparation of India’s First National Adaptation plan.
- Director ICFRE-RFRI is a member of, Governing Body of State Medicinal Plant Board (SMPB) at Assam; State Level Executive Committee (SLEC) of Assam State Bamboo Mission; State Level Executive Committee for Green India Mission (Assam); Regional Development- North East, NITI Aayog, New Delhi; National Body for Bamboo Development, MoEF&CC; Brahmaputra Board, Ministry of Water Resources, Guwahati; PPV&FRA, Ministry of Agriculture and Farmers Welfare; Expert Committee constituted for declaration of Majuli as a Biodiversity Heritage Site and Inter-Ministerial Task Force for promotion of Agarwood in NER.

### f. Important Conferences organized in India

## or international conferences

- ICFRE HFRI Shimla in collaboration with Him Science Congress Association organized two days 12th International Conference on “Sustainable Material & Bio Resource Integration Bridging Technology and Traditional Knowledge”
- Director, ICFRE-HFRI attended and presented papers at 15th Biennial ISSS conference and seed ecology meeting VIII at Perth, Australia.
- Scientist from ICFRE-IWST participated in the International Mass Timber Conference (MTC) made a poster presentation titled “Glulam: A step Towards Sustainable Construction in India Portland USA.
- Scientist from ICFRE-IWST participated in International Symposium: Asia’s unique forests and trees: Conserving diversity, building resilience, enhancing productivity at Philippines Los Baños, Philippines.
- Scientist from ICFRE-IFGTB attended the International Symposium: Asia’s unique forests and trees: Conserving diversity, building resilience, enhancing productivity at Las Banos, Phillipines and delivered the keynote address asnd co-chaired a session on conserving biodiversity. ADG (Media and Extension), ICFRE and Scientist from ICFRE-IFGTB also presented papers.
- Scientist from ICFRE-IFGTB conducted a side event and functioned as a panelist at the side event - Smallholder tree farming in Asia-Pacific: challenges and opportunities ahead and presented views on the challenges and opportunities of smallholder farming and agroforestry in India, at the 31st APFC at Chiang Mai, Thailand.
- Scientist from ICFRE-IFGTB delivered a plenary lecture in the 3rd International Conference on Mangroves for Sustainability (ICMS-2025) held at Colombo by The Open University of Sri Lanka and Universities.
- Scientist from ICFRE-IFGTB delivered an oral presentation in India at the 5th World Teak

Conference at Grand Hyatt, Cochin, Kerala, hosted by the KFRI and coordinated by the International Teak Information Network (TEAKNET) India.

- Scientist from ICFRE-IFGTB functioned as a panelist at the side event - Smallholder tree farming in Asia-Pacific: challenges and opportunities ahead, at the 31st APFC at Chiang Mai, Thailand and for Poster presentation in 5th World Teak Conference held at Grand Hyatt Kochi, Bolgatty, Kerala, India.
- Scientist from ICFRE-IFGTB presented Papers on Teak Domestication at ITTO meeting at Chiang Mai, Thailand.

## g. MEAs, Agreement with countries, international organizations

- ICFRE and its institutes has signed MoUs with Indus Tree Crafts Foundation, Bangalore; Indira Gandhi National Forest Academy (IGNFA), Dehradun; National Remote Sensing Centre (NRSC), Hyderabad; National Institute of Advanced Studies (NIAS), Bengaluru; Wildlife Wing of the HP State Forest Department; Himachal Pradesh University, Summerhill, Shimla; Manipur University, Imphal (Manipur); National Institute of Pharmaceutical Education and Research (NIPER), Guwahati; ICAR-National Institute of Plant Biotechnology, New Delhi; Assam State Forest Department, Guwahati; University of Agricultural Sciences, Mandya, Karnataka and; CSIR-IICT, Secunderabad.



MoU Signing event between ICFRE and Indus Tree Craft Foundation

## h. List of major publications

During the year, 520+ research papers/books/popular articles etc. have been published in various National/International Journals by ICFRE personnel. Some of the important publications are as follows:

### Books/Booklets

- Cashing on Casuarina.
- Extension Strategy of ICFRE 2025-30.
- Compendium of Lesser Known Forest Plants.
- Breeding Plants for Important Tree Species of India
- Pollinators of Dihing Patkai National Park Assam
- Macrofungal diversity of Dihing Patkai National Park, Assam

- कृषि वार्षिकी – सूचना पुस्तिका

- वानिकी में समृद्धि
- Agroforestry and climate change mitigation: Harnessing multitrophic interactions for sustainable plant protection and ecosystem resilience.
- Multitrophic interactions for sustainable agroforestry: Harnessing the power of beneficial insects and ecological dynamics.
- Flora of Atei Reserve Forest.
- तरुचिन्तन

### Training manuals:

- Botanicals extraction and formulations as eco-friendly management of insect pest of forest nursery
- Ecofriendly biopesticides from tree borne oil seed and plants for sustainable insect pest management.

### Technical brochures

- Taxonomic characterization and DNA barcoding of rohida (*Tecomella undulata*) defoliator *Patilaua tecomella* affecting marwar teak in arid regions.
- Characterization of novel *Trichoderma harzianum* isolates exhibiting potent biocon-

trol activity and their molecular identification through ITS DNA barcoding.

- Enhancing neem leaf compost through *Trichoderma*-based bioaugmentation for improved nutrient enrichment, pathogen suppression, and sustainable soil health management.
- Common nursery diseases and insect pests: causes, symptoms, prevention, and management.
- Gamhar-Cowpea based Agroforestry Model for Semi-Arid Tropics of Telangana State.
- Boosting Red Sanders (*Pterocarpus santalinus* L.f.) Growth with Natural Microbes.
- Estimation of heartwood in standing in trees of *Pterocarpus santalinus* using Electric Resistance Tomograph (ERT).

### Pamphlets

- Strategies for the management of flower gall infestation
- सतत कीट प्रबंधन हेतुवृक्षों के तीलियेबीजों
- खेजड़ी, कुमट एवं कैर के मुख्य कीटपरागणकर्ता
- Poplar based agroforestry models in Hindi & English.
- Hazards and Horizons: The Changing Ecological Niche of *D. sissoo*.
- *Cinnamomum cecidodaphne*: A lesser known forest plants for industrially viable products.
- Mahua (*Madhuca longifolia*): Tree Improvement Approaches in Eastern India
- Ecological Restoration of Iron Ore Mines Overburden - A step towards Greener and Productive Landscape.
- Forest Genetic Resources Conservation in Eastern India: A Geospatial approach.
- Hazards & horizons the changing ecological niche of *Dalbergia sissoo*: A spatial approach to planning conservation strategies and emerging climate change threats.
- Mahua Tree Improvement
- Eco-Restoration of Iron Mine.

## 6.8 National Afforestation and Eco-development Board

### a. Introduction

The National Afforestation and Eco-Development Board (NAEB), is responsible for promoting afforestation, tree planting, ecological restoration and eco-development activities in the country, with special attention to the degraded forest areas and lands adjoining the forest areas, national parks, sanctuaries and other protected areas as well as the ecologically fragile areas like the Western Himalayas, Aravallis, Western Ghats etc. The Desertification Cell (DC) of the Ministry has been merged with the NAEB and works related to Land Degradation Neutrality, desertification, drought and matters related to the United Nations Convention to Combat Desertification (UNCCD) are being handled in the NAEB.

Further, the erstwhile scheme of National Afforestation programme (NAP) has been merged with the National Mission for a Green India (GIM). Notes on works under GIM Directorate are given in a separate communication.

The main schemes and programmes undertaken by the NAEB are the Eco-Development Forces (EDF) scheme jointly operated with the DGTA which is supported from the Ministry's budget, National CAMPA funded Nagar Van Yojana (NVY) and School Nursery Yojana (SNY) schemes and the "Ek Ped Maa Ke Naam" (EPMKN) campaign, a unique initiative aimed at promoting afforestation along with nurturing the bond between people and mother nature, on a "Whole of Government" and "Whole of Society" approach.

### b. Important Activities undertaken

Under the EPMKN programme, more than 130 crore seedlings have been planted in the period under report i.e. from 01.01.2025 to 31.12.2025 as reported on MeriLiFE Portal by public, institutions, agencies, government and non-

government alike.

A total of 620 Nagar Vans have been sanctioned in 28 States and 3 Union Territories of the country under NVY at a total cost of Rs. 654.30 Crores since the launch of the scheme and a total of 75 Nagar Vans have been sanctioned during the reference period.

The NAEB / GIM / DC is monitoring and guiding the works being done on a convergence mode in the concerned States under the Aravalli Landscape Restoration / Aravalli Green Wall (AGW) project and the implementation of the DPRs on 13 Rivers' Rejuvenation through Forestry Interventions.

### c. Progress / Innovation

- Local Indigenous species have been stressed upon for plantation and Microforests have been promoting with due handholding of the States and Institutions such as Jawahar Navodaya Vidyalayas, Kendriya Vidyalayas etc. making use of expertise of the scientists from ICFRE etc.

### d. Important / cumulative achievement

- More than 260 crore seedlings planted under the campaign since 2024 till as reported on MeriLiFE Portal.
- A total of 620 Nagar Vans have been sanctioned in 28 States and 3 Union Territories of the country under NVY since the launch of the scheme.





### e. Important Conferences organized in India or International Conferences

- (i) National Workshop on “Restoration of Aravalli Landscape and its Biodiversity” (Aravalli Green Wall project) was held on 21 May 2025 in Udaipur in collaboration with the Rajasthan Forest Department and GIZ India. The workshop reviewed progress under the Aravalli Green Wall Initiative across 29 districts and underscored the ecological importance of the Aravalli Landscape. The Hon’ble Union Minister for Environment, Forest and Climate Change released the Detailed Action Plan (DAP) for Aravalli Landscape Restoration, reaffirming India’s commitment to coordinated, landscape-level restoration.
- (ii) National Workshop on “Strategies for Combating Desertification and Drought” was conducted on World Day to Combat Drought and Desertification on the 17th June 2025 in AFRI, Jodhpur, where the Hon’ble Union Minister for Environment, Forest and Climate Change highlighted community-led Aravalli restoration and India’s gains in forest cover. The event also saw the release of key

publications and technical sessions on land management, inter- state collaboration under the Aravalli Green Wall Project, and achieving land degradation neutrality by 2030.

- (iii) National Workshop jointly organized by the NAEB and ICFRE on “Implementation of the DPRs for Rejuvenation of 13 Major Indian Rivers through Forestry Interventions” was held on 25th April 2025. Comprehensive deliberations were held on the Key issues related to the implementation of the Detailed Project Reports (DPRs) for rejuvenation of 13 major Indian rivers through forestry interventions.



### f. List of Major Publications –

- Detailed Action Plan (DAP) for Aravalli Landscape Restoration.

#### Scheme / Programme / Initiative

National Afforestation and Eco-development

Board is implementing the Nagar Van Yojana (NVY) scheme which envisages developing 600 Nagar Vans and 400 Nagar Vatikas in the country during the period of 2020-21 to 2026-27 with an objective to significantly enhance the tree outside forests and green cover, enhancement of biodiversity and ecological benefits to the urban and periurban areas apart from improving quality of life of city dwellers. Funds are provided for the scheme from the National Fund under National Authority of CAMPA to cover mainly the cost of fencing, soil- moisture conservation measures & related activities, administrative activities, plantation and maintenance. A total of 75 Na-gar Vans have been sanctioned during the reference period

**Inputs:** Motivating, guiding and funding the States and UTs for creation of Nagar Vans with funding by the National CAMPA.

**Outputs:** Enhancing trees outside forests and green cover, enhancement of biodiversity and ecological benefits to the citizens of urban and periurban areas.

**Outcome Variables :** Improving quality of life of city dwellers by providing green spaces for learning, improving physical and mental health and wholesome recreational facilities.

#### **a. Ek Ped Maa Ke Naam (EPMKN) :**

The "Ek Ped Maa Ke Naam" campaign launched by the Hon'ble Prime Minister on World Environment Day 2024 is being continued in the current year. The campaign adopts a "Whole of Government" and "Whole of Society" approach, utilizing the MeriLiFE portal for data crowdsourcing and plantation tracking. The campaign emphasizes continuous engagement through the MeriLiFE portal, My Bharat Portal ensuring community involvement and capturing the progress of plantation activities.

The EPMKN campaign 2025 aims to high-light the achievements of last year's tree plantation initiatives, showcasing innovative efforts, participation of various ministries with an aim to achieve a Target of 100 Crores seedlings starting from 05.06.2025 and ending in March,2026. The campaign also plans to establish 1000 micro-forests by March 2026,enhancing urban ecology and biodiversity.

**Inputs:** Guiding, Steering and Motivating the States and UTs for active convergence of different schemes for plantation such as CAMPA, NVY, State schemes etc. under the EPMKN.

**Outputs:** Afforestation across the nation duly reported by the States/ UTs and other stakeholders on the MeriLiFE platform developed for the purpose and test checked by the respective States and UTs as per their respective Protocols and SOPs for the establishment and maintenance of the plantations developed.

**Outcome Variables:** The targets have been achieved with enthusiastic response from all stakeholders, especially the State Forest Departments having overachieved their targets in the larger States such as MP, Gujarat, Rajasthan etc. The contribution of school stu-dents in the States / UTs under the aegis of the Ministry of Education, Department of School Education and Literacy (DoSEL) this year 2025 is also praiseworthy and deserves accolades.

#### **b. Progress / Achievements**

- More than 260 Cr. seedlings have been planted under EPMKN since June 2024 till December 2025 as recorded in the MeriLiFE Portal.

A total of 620 Nagar Vans have been sanctioned in 28 States and 3 Union Territories of the country under NVY while 75 nos. of Nagar Vans have been sanctioned during the reference period.

## 6.9 National Green India Mission

### 1. Name of the Division: Green India Mission

#### a. Introduction:

National Mission for a Green India (GIM) is one of the eight Missions outlined under the National Action Plan on Climate Change which aims towards protecting, restoring and enhancing India's forest cover and responding to Climate Change. It envisages a holistic view of greening and focuses on multiple ecosystem services along with carbon sequestration and emission reduction as co-benefit.

#### Mission Objectives

- Increased forest / tree cover and improved quality of the existing forest cover.
- Improved ecosystem services including biodiversity, hydrological services and carbon sequestration.
- Increased forest-based livelihood income of households living in and around the forests.
- Enhanced annual CO<sub>2</sub> sequestration.

Further, keeping in view of the existing National and International commitments of Government of India, the Ministry has released the Revised Mission document of Green India Mission (GIM) on 17th June 2025. Under the new Mission Document emphasis is laid on Reclamation / Restoration Forestry to treat Open Forest and Non- Forest areas through focus on Soil and Moisture Conservation activities, Micro-ecosystems approach with prioritized intervention areas under the landscape, through adoption of regionally conducive best practice models, with an emphasis on saturating the landscape in synergy with the other afforestation schemes of the Central and the State Government.

The emphasis is for innovative and demonstrative eco-restoration models to saturate the vulnerable landscapes, which would include focus on establishing NTFP and Agro-forestry based Sustainable

Plantation Models with multi-stakeholder pro-active involvement and an enhanced engagement of Private Players on non-forest lands. The Mission's interventions are undertaken under three submissions:

- Enhanced Quality of Forest cover and Improved Ecosystem Services;
- Increase in Forest and Tree cover and Ecosystem Restoration;
- Enhancement of household incomes and diversification of livelihoods for forest dependent communities.

#### b. Activities undertaken

- GIM activities were started in year 2015-16 and so far, a sum of Rs. 1016.21 Crores have been allocated to Seventeen States and one union territory for creation of plantation over an area of 171345 ha and livelihood improvement activities of forest dependent communities.
- Fund amounting to Rs. 53.34 crore has been allocated to seven States namely Chhattisgarh, Haryana, Karnataka, Mizoram, Sikkim & Kerala for carrying out the afforestation activities which include advance work, creation of plantation and maintenance of plantation done during the previous year.

#### c. Progress / Achievements

A sum of Rs 1016.21 Crore has been allocated to seventeen states and one union territory from the year 2015-16 to 2025-26 (as on 31.1.2026) for creation of plantation of 171345 ha in the forest and non-forest areas along with various livelihood improvement activities. The State wise details of afforestation being taken up and funds released is given in table below:

2. Grant-in-aid released to Institutions / organizations including NGOs:
  - Funds released to the State Forest Develop-

ment Agencies (SFDA) for carrying out the GIM activities during the FY 2025-26 under

the Green India Mission (01.04.2025 to till date):

S. No.	Name of the State	Creation work done (in ha.)	Funds Released (Rs. in crore)
1	Andhra Pradesh	1,433	6.19
2	Arunachal Pradesh*	5,314	34.71
3	Chhattisgarh	19,128	75.58
4	Haryana	1,301	73.38
5	Himachal Pradesh	1,299	17.09
6	Jammu & Kashmir	1,778	36.72
7	Karnataka	2,722	24.61
8	Kerala	12,297	33.96
9	Madhya Pradesh	32,831	123.26
10	Maharashtra	5,223	10.30
11	Manipur	16,488	62.66
12	Mizoram	19,643	169.11
13	Odisha	20,711	88.37
14	Punjab	7,168	26.95
15	Sikkim	6,567	49.34
16	Uttarakhand	14,836	167.59
17	West Bengal	2,606	10.95
18	Uttar Pradesh	0	5.43
Total		171345	1016.21

\*States have taken up the advance work. Creation of plantation will be done based on the actual progress done by State regarding advance work.

S. No.	Name of Organization	Total Amount allocated/released (Rs. in Crore)
1	SFDA, Chhattisgarh (Mother sanction)	2.74
2	SFDA, Haryana (Mother sanction)	25.65
3	SFDA, Karnataka (Mother sanction)	0.95
4	SFDA, Mizoram (Mother sanction)	8.90
5	SFDA, Sikkim (Mother sanction)	6.61
6	SFDA, Kerala	8.49
Total		53.34

- Ministry had established a Centre of Excellence for Sustainable Land Management (CoE-SLM) at ICFRE. The main role of the proposed Centre of Excellence (CoE) would be to share knowledge, technology & training of manpower of developing countries Parties of UNCCD and to promote scientific approach to arrest further land degradation and restoration of degraded lands. Directorate of Green India Mission has released Rs 1.39 Cr from FY 2025-26 to till date for taking up the activities as per the approved Annual Plan of Operations within the mandate of CoE-SLM.

# Chapter 7

## CONSERVATION – WILDLIFE



## 7.1 Wildlife Conservation

### a. Introduction

The Wildlife Division of the Ministry of Environment, Forest and Climate Change (MoEFCC) serves as the nodal authority for wildlife conservation in India. The wildlife wing is headed by the Additional Director General of Forests (Wildlife), who also functions as the Director of Wild Life Preservation under the provisions of the Wild Life (Protection) Act, 1972. The Division is responsible for policy formulation, legal and regulatory matters, and financial planning related to wildlife conservation. It extends financial support to States and Union Territories for the protection, management, and conservation of wildlife and their habitats through the Centrally Sponsored Scheme – Development of Wildlife Habitats (CSS–DWH).

### b. Activities undertaken:

- Increase in Protected Area Network in the Country
- 7th Meeting of National Board for Wild Life
- Project Dolphin
- Project Lion
- Human-Wildlife Conflict Management
- Wildlife Week, 2025 Celebrations
- Financial assistance under Centrally Sponsored Scheme-Development of Wildlife Habitat
- Report of Management Effectiveness Evaluation of National Parks and Wildlife Sanctuaries in India (2020-2025)
- Participation in meetings of international meetings/conventions

### c. Progress/Innovations:

#### i. Protected Area Network in the Country:

The network of Protected Areas (PAs) in the country has been strengthened during the period under reference, increasing the total number of Protected Areas to 1,134. These Protected Areas collectively cover an area of 187,162.91 square kilometres, constituting 5.69 per cent of the total geographical area of the

country.

#### ii. 7th Meeting of National Board for Wild Life:

The 7th meeting of National Board for Wild Life was held on 03rd March 2025 at Sasan Gir, Gujarat under the chairmanship of Hon'ble Prime Minister. The National Board for Wildlife reviewed key wildlife conservation initiatives of the Government, highlighting significant achievements in the expansion of protected areas and flagship species programmes such as Project Tiger, Project Elephant, and Project Snow Leopard. Conservation efforts for dolphins and Asiatic lions, along with the establishment of the International Big Cats Alliance, were also reviewed.

During the meeting, the Prime Minister released report titled Population status of river dolphin in India.

The Prime Minister laid the foundation stone of the National Referral Centre for Wildlife at Junagadh, which will serve as a central hub for coordination and governance related to wildlife health and disease management and also emphasized and recommended several conservation measures.



#### iii. Project Dolphin:

During the period, the report of the first-ever river dolphin population estimation finalized and released, which reported population of 6327 riverine dolphins in the country. This

pioneering exercise involved surveys across 28 rivers in eight States, covering more than 8,500 kilometers. Uttar Pradesh recorded the highest dolphin population, followed by Bihar, West Bengal, and Assam. Subsequently, framework for the second cycle of dolphin population estimation was launched.



#### iv. Project Lion:

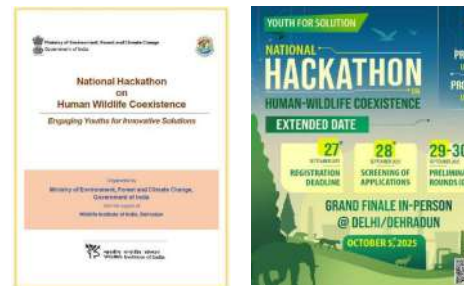
The 16th Population Estimation exercise of the Asiatic Lion carried out in 2025, recorded a total population of 891 Asiatic Lions in the State of Gujarat, reflecting an increase of 32.19 per cent over the previous estimation conducted in June 2020.



#### v. Human-Wildlife Conflict Management:

A National Hackathon on “Human–Wildlife Coexistence: Engaging Youth for Innovative Solutions” was organized during Wildlife Week 2025. The hackathon focused on developing technology-based solutions for human–wildlife conflict (HWC) management; identifying sustainable financial models, including insurance, compensation, and incentive mechanisms; proposing community-based

engagement models; and formulating species-specific strategies for conflict management involving species such as tiger, lion, leopard, snow leopard, elephant, bear, wild pig, nilgai, langur, macaque, birds (including peafowl and parakeets), crocodiles, snakes, and other relevant species.



#### vi. Wildlife Week, 2025 Celebrations:

Wildlife Week, 2025 was celebrated under the theme “Human–Wildlife Coexistence.” During the week, a range of awareness programmes aligned with the theme were organized across the country. As part of the celebrations, the Ministry organized a special programme on 6 October 2025 at the Hari Singh Auditorium, IGNSA, FRI Campus, Dehradun, in the presence of the Hon’ble Minister for Environment, Forest and Climate Change. The event was attended by senior officers of the Ministry, representatives of State Forest Departments, scientists, academicians, students, and conservation professionals.

During the programme, the Minister launched 5 National Level Projects for Species Conservation and Conflict Management, as well as, 4 National-level Action Plans & Field Guides for Species Population Assessments and Monitoring Programmes.

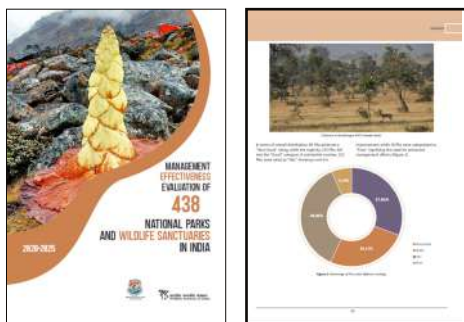


vii. Inclusion of Sloth bear and Gharials under the Species Recovery Programme component of the Centrally Sponsored Scheme-Development of Wildlife Habitat( CSS\_DWH):

During the year, financial assistance has been provided to States and Union Territories under the Centrally Sponsored Scheme - Development of Wildlife Habitats (CSS-DWH) for the conservation and protection of wildlife and its habitats. Sloth bear and Gharial have been included under Species Recovery Programme, component of CSS-DWH for providing financial assistance to States/UTs.

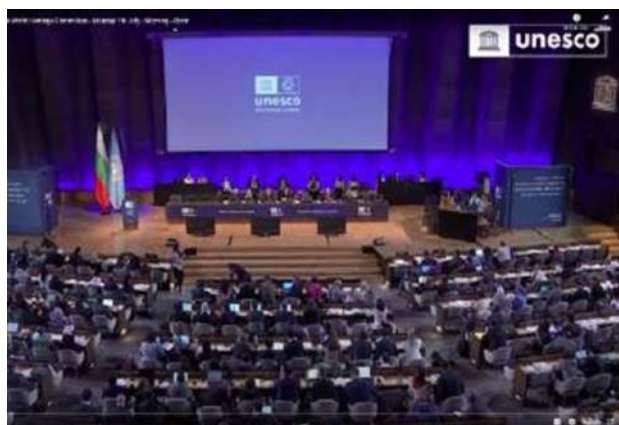
viii. Report of Management Effectiveness Evaluation of National Parks and Wildlife Sanctuaries in India (2020-2025):

Management Effectiveness Evaluation (MEE) report of 438 PAs (National Parks and sanctuaries) was released. The report highlights an overall mean MEE score of 64.41%, indicating management effectiveness as "Good." Among these, 84 PAs were rated as "Very Good," highlighting their strong management practices, adherence to conservation goals, and effective implementation of MEE recommendations.



ix. Participation in meetings of international meetings/ conventions:

- Delegation led by the Hon’ble Minister of State for Environment, Forest and Climate Change, along with senior officials of the Ministry, participated in the IX Steering Committee Meeting of the Global Snow Leopard and Ecosystem Protection Program (GSLEP), held on 5–6 June 2025 at Issyk-Kul, Kyrgyz Republic
- Delegations from India participated 78th meeting of CITES Standing Committee held in February 2025 and CITES COP20 from 24th November to 05th December 2025 at Samarkand, Uzbekistan



- Delegation participated in the 47th session of the World Heritage Committee held in Paris, France from 6th to 16th July 2025.

## 7.2 Wildlife Crime Control Bureau

### a. Introduction

Establishment and Mandate: The Wildlife Crime Control Bureau (WCCB) was constituted by the Government of India on 6 June 2007 under Section 38Y of the Wild Life (Protection) Act, 1972 to combat wildlife crime. It functions as a multi-disciplinary body comprising officers from Police, Forest, Customs, and other enforcement agencies to ensure coordinated action against wildlife offences.

Under Section 38Z of the Wild Life (Protection) Act, 1972, the Wildlife Crime Control Bureau is entrusted with the following statutory functions:

- a) Collect and collate intelligence related to organized wildlife crime activities and to disseminate the same to State and other enforcement agencies for immediate action so as to apprehend the criminals and to establish a centralized wildlife crime data bank;
- b) Co-ordination of actions by various officers, State Governments and other authorities in connection with the enforcement of the provisions of this Act, either directly or through regional and border units set up by the Bureau;
- c) Implementation of obligations under the various international Conventions and protocols that are in force at present or which may be ratified or acceded to by India in future;
- d) Assistance to concerned authorities in foreign countries and concerned international organizations to facilitate co-ordination and universal action for wildlife crime control;
- e) Develop infrastructure and capacity building for scientific and professional investigation into wildlife crimes and assist State Governments to ensure success in prosecutions related to wildlife crimes;
- f) Advise the Government of India on issues relating to wildlife crimes having national and international ramifications, and suggest

changes required in relevant policy and laws from time to time.

### b. Activities undertaken

In line with its mandate, the Bureau has undertaken the following activities:

- The Bureau has collected, collated & disseminated 158 no. of intelligence inputs on wildlife crime and criminals to the Central / State agencies concerned for joint enforcement operations / apprehension of criminals.
- Collection of wildlife crime data from 36 agencies of the States/UTs (Forest & Police Depts.) by creation of online data management system in WCCB website.
- Wildlife Crime Enforcement under the provisions of Wild Life (Protection) Act, 1972:-
  - Detection / search / seizures / apprehensions – 118 No. of Wildlife Crime cases detected in Joint Operations conducted by Bureau with other State/ central Enforcement Agencies during the period.
- Assistance in investigation and prosecution of important wildlife offences being investigated by other agencies: Assistance to the State authorities in investigation was provided in 89 No. of wildlife crime new cases during the year.
- Capacity building in dealing with wildlife crimes and investigation of wildlife offences:-
  - Conducted 23 No. of two days capacity building training courses on investigation of wildlife offences and intelligence tradecraft for 1222 Police, Forest, Indian Coast Guard & Customs officials.
  - Conducted 79 No. of Sensitization programmes / workshops / online webinars for the Central and State agencies on issues related to wildlife crimes and identification of wildlife articles in which 3770 Officials participated.

- Conducted 41 PRI Sensitization programmes for the PRI members / Villagers on issues related to wildlife crimes and protection of wildlife in which 3432 PRI members & other stakeholders participated.
  - Provided expert resource persons to various training centers and enforcement agencies for sensitization on wildlife and wildlife crime.
  - Human Resource Development in WCCB – Deployment of WCCB officials for various training courses for their capacity building as Trainers in the relevant fields.
- Coordination and cooperation to combat organized wildlife crimes with trans-border ramifications: - WCCB participated in the following national and international multi-agency meetings related to combating organized trans-border wildlife crime.
1. The WCCB officer have a member of Special Investigation Team (SIT) constituted to monitor and supervise offence case registered for poaching of Tiger and illegal trade of its body parts at Central Chanda Forest Division, Rajura Taluka, Chandrapur, Maharashtra.
  2. Exotic Species Trafficking Case Coordination Meeting at Kuala Lumpur, Malaysia and Bangkok, Thailand From 24th to 28th February 2025, organized by INTERPOL.
  3. On 05.05.2025, a Special Investigation Team (SIT) has been constituted under the Chairpersonship of the Additional Director / IGP, WCCB to investigate the issues of Poaching / trade in Ivory linked with the poaching of elephants in the Manas Landscape. The SIT has carried out the detailed investigation into the matter and submitted its Report.
  4. The WCCB has participated 21st Project Elephant Steering Committee Meeting as a Permanent Invitee, held under the Chairmanship of Hon'ble Minister for Environment, Forest & Climate Change on 26th June 2025 at IGNFA, Dehradun.
  5. Regional workshop organized by Global Tiger Forum (GTF) on “Fostering Tiger Conservation in High Altitude Landscape: Lessons from India, Nepal & Bhutan” on 30 June 2025 at New Delhi. The workshop was organized under the ongoing project "Investigating and addressing Tiger conservation in Sikkim-The Eastern Himalayas” supported by KfW–IUCN under International Tiger Habitat Conservation Programme (ITHCP).
  6. SAWEN- Wildlife Enforcement Networks (WENs) - Virtual Meeting on 30.07.2025.
  7. 12th Executive Committee Meeting of SAWEN in Colombo, Sri Lanka – Virtual Meeting from 30 July to 01 August 2025.
  8. Two days conference on Enhancing Cooperation To Track Apprehend Fugitive at Bharat Mandapam, New Delhi organized by CBI on 16-17.10.2025.
  9. 4th National Project Steering Committee (NPSC) Meeting for the GOI-UNDP-GEF - Small Cats Project “Strengthening conservation and resilience of globally-significant wild cat landscapes through a focus on small cat and leopard conservation” in Teesta Conference Hall, 1st Floor, Vayu Wing, IPB, MoEFCC, through hybrid mode.
  10. During, 11th to 13th November 2025, WWF & WCCB organizing National workshop on ‘Strengthening Wildlife Enforcement Network to Tackle Illegal Wildlife Trade Networks’ at Shillong, Meghalaya for the Law Enforcement Officers of North East Region.
  11. A one-day capacity-building workshop titled “Cyber Wildlife Crime: Legal Frameworks and Enforcement Action” was conducted on 17 November 2025 at the India International Centre, New Delhi. The workshop was organized by WTI in coordination with WCCB.
  12. During, 25th – 27th November, 2025,

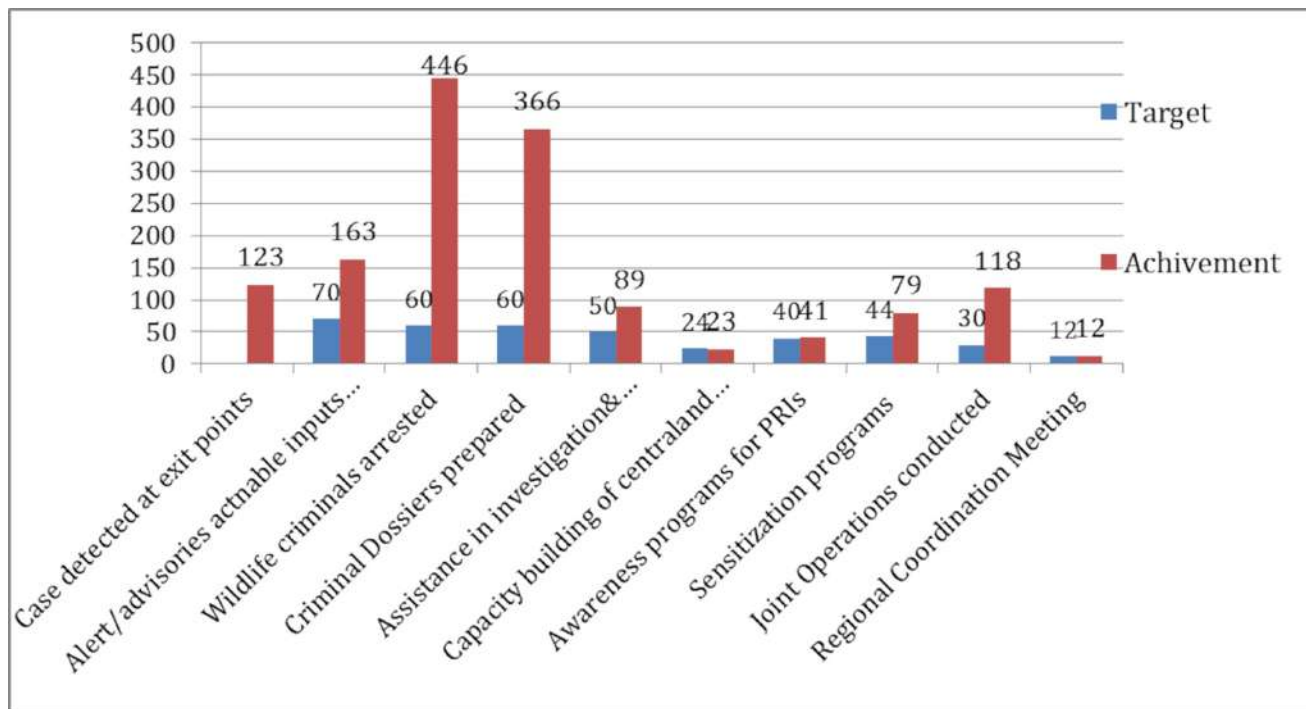
SAWEN Secretariat, in coordination and collaboration with WWF (Bhutan, India and Nepal) organized a Regional Training of Trainers (ToT) on Combating Wildlife Crime at New Delhi.

13. WCCB has participated CITES CoP20 Meeting from 24th November to 5th December, 2025, held at Samarkand, Uzbekistan.
14. The WCCB has participated 22nd Project Elephant Steering Committee Meeting as a Permanent Invitee, held under the Chairmanship of Hon'ble Minister for Environment, Forest & Climate Change on 21st December, 2025 at Sundarbans Tiger Reserve, West Bengal.
15. WCCB has also assisted the Customs Department in determining the import and export permissibility of wildlife-related shipments in accordance with the provisions of the Wildlife (Protection) Act, 1972, and CITES.
16. Regulation of legal trade under CITES:

WCCB assisted Customs by conducting inspection of pre/post shipment of flora and fauna samples of EXIM consignments as per the provisions of the Wild Life Protection Act, 1972, CITES and EXIM Policy. Such inspections resulted in detection of 137 (WLPA- 47, CITES- 63 and EXIM- 27) policy violations at various exit points across the country during this financial year.

17. Issue Alerts and Advisories to the stakeholders on the issues pertaining to wildlife crime enforcement, policy and legislations: During the year 05 advisories on modus operandi, trade route and trend of wildlife crime to sensitize enforcement agencies across the country and 158 actionable Alerts/Inputs were issued to the concerned authorities on wildlife crime related issues that resulted in seizures of various wildlife articles / protected animals and arrest of accused.

### c. Achievements under Operational Targets of WCCB



**Detection & seizures: Photographs of WCCB**



**Seizure of Pangolin scale weight about 9.335 kg along with apprehension of (02) Persons at south Garo Hills, Meghalaya on 14/10/2025**



**Seizure of 295 Nos live and 355 Nos dead Parakeets at Lucknow, Uttar Pradesh on 18/10/2025**



**Seizure Pangolin scale weight about 11.915 kg along with apprehension of (02) Persons Garo Hills, Meghalaya on 31/10/2025**



**Seizure of 2 Blackbuck Skins & 4 accused arrested at Amravati Maharashtra on 04/11/2025 during joint enforcement operations conducted by WCCB**

**d. Other Activities undertaken:  
World Environment Day 2025:**

June, 2025: On the occasion of World Environment Day, 2025, the Regional Offices of the Wildlife Crime Control Bureau organized a series of sensitization-cum-awareness programmes across multiple locations. These initiatives were aimed at strengthening awareness on wildlife conservation, environmental protection, and the prevention of wildlife crime. The programmes engaged a wide range of stakeholders, including school students, forest officials, Delhi Police personnel, general

public, and officers of the Indian Revenue Service (IRS) etc.

**Wildlife Week 2025:**

The Wildlife Crime Control Bureau organized a series of awareness, sensitization, and capacity building programmes across different locations in India viz Schools, Airports, National Parks, Foreign Post Office, SSB Training School, Coast Guard etc. The objective of these activities was to promote public awareness on wildlife protection and conservation, human-wildlife coexistence with emphasis on 'Seva Parv' (service & responsibility

to Nature), the provisions of the Wildlife (Protection) Act, 1972, and to enhance cooperation among enforcement agencies, forest departments, students, and local communities. A total of 23 no. of programs were conducted across the country.

### **Activities related to CITES:**

- A. The Wildlife Crime Control Bureau in coordination with DG System, CBIC is developing Import Clearance System to be integrated with SWIFT 2.0 to enable seamless electronic processing import of Wildlife related shipments.
- B. CITES Annual Report, 2024 has been prepared & submitted to the Management Authority-CITES, New Delhi.

### **Hindi Section Report 2025:**

The Wildlife Crime Control Bureau (WCCB) organized Hindi Pakhwada from 09.09.2025 to 23.09.2025 as part of its initiatives to promote the use of Hindi in official work. During this period, four competitions were conducted, namely an Essay Writing Competition, Hindi Quiz Contest, Noting and Drafting Competition, and a Bilingual Word Meaning Competition. The winners of these competitions were felicitated with prizes and certificates, which were presented by the Additional Director and Head of Department.

### **Vigilance Awareness Week 2025:**

The Wildlife Crime Control Bureau (WCCB) organized and observed “Vigilance Awareness Week” over the period from 27.10.2025 to 02.11.2025, as part of its ongoing efforts to promote integrity, transparency, and awareness against corruption.

### **WCCB Internship Programme:**

The Winter Internship Programme at WCCB had been commenced from 6th January to 6th February,

2025 and a total 12 Interns have participated in Winter Internship Programme at the Regional offices. During the Summer Internship Program (June-2025), total 05 interns have joined Internship programme at different Regions of WCCB including Headquarter.

### **Social Media Outreach:**

The Wildlife Crime Control Bureau has been effectively leveraging social media to engage with the public and raise awareness about the initiatives to combat illegal wildlife crime. In addition to maintaining a comprehensive official website, WCCB has an active presence on all major social media platforms, including Facebook, Twitter, Instagram, and YouTube.

## **7.3 Central Zoo Authority**

### **a. Introduction, objectives and functions**

The Central Zoo Authority (CZA) is a statutory body of the Ministry of Environment, Forest & Climate Change, Government of India. It was constituted in 1992 under the provisions of Wildlife (Protection) Act, 1972 to oversee the functioning of zoos in India and provide them technical assistance. The prime concern of the CZA has been to raise the existing standards of animal housing, upkeep and health care in the zoos of the country.

Objectives:

- Enforce minimum standards and norms for upkeep and healthcare of animals in Indian zoos and
- Control mushrooming of unplanned and ill-conceived zoos.

Functions:

The Authority has been assigned following functions under Section 38 (C) of the Wildlife (Protection) Act, 1972:

Sl.	Function assigned	Performance of functions
a)	To specify the minimum standards for housing, upkeep and veterinary care of the animals kept in zoos	<p>The CZA has prescribed following standards of for housing and upkeep of animals housed in captivity:</p> <ol style="list-style-type: none"> <li>1. Recognition of Zoo Rules notified by the Central Government under section 63(1)(f) &amp; (g) of the Wild Life (Protection) Act, 1972.</li> <li>2. Guidelines for Establishment and Scientific management of zoos</li> </ol>
b)	To evaluate and assess the functioning of the zoos with respect to the prescribed standards or norms	<p>During the reporting period, the Central Zoo Authority has physically evaluated 25 zoos.</p>
c)	To recognize or derecognize zoos	<p>The CZA granted recognition/ renewal of recognition to the 7 zoos. Besides, approval for establishment of 7 new zoos was provided. At present there are 156 recognized zoos in the country.</p>
d)	To identify endangered species of wild animals for purposes of captive breeding and assigning responsibility in this regard to a zoo	<p>The Central Zoo Authority has identified 74 species of indigenous faunal species for focused conservation breeding. This includes 24 species of birds, 46 species of mammals and 4 species of reptiles. For this purpose, 42 zoos have been identified, of which 29, are designated as coordinating zoos. It was envisioned earlier that at least 100 individuals of each identified species are established that are genetically, physically and behaviourally fit individuals. The goal is to have these populations as an ‘insurance’ (maintaining a viable ex situ population of the species to prevent predicted local, regional or global species extinction and preserve options for future conservation strategies) in case species restoration is planned. Broadly, the establishment of these populations broadly follow the “IUCN Species Survival Commission Guidelines on the Use of Ex situ Management for Species Conservation Version 2.0”.</p> <p>The CZA also published the first “Guidelines/Norms for Conservation Breeding Programme of the Central Zoo Authority” in 2011. The CZA has constituted a committee to review and evaluate the state of conservation breeding programs in Indian zoo and published a report which intended to provide constructive insights into the management of conservation breeding programs in Indian Zoos.</p> <p>During the reporting period, the Bannerghatta Biological Park, Bengaluru was recommended by the Technical Committee to assign the responsibility as a participating zoo in the conservation breeding programme of Long-billed Vulture.</p>

Sl.	Function assigned	Performance of functions
e)	To coordinate the acquisition, exchange and loaning of animals for breeding purpose	During the reporting period, CZA has approved 19 animal exchange/transfer proposal between Indian Zoos and 267 exchange proposal between Indian & Foreign Zoos.
f)	To ensure maintenance of studbooks of endangered species of wild animals bred in captivity	34 species of captive wild animals housed in Indian Zoos were identified for preparation of Studbooks. The program is currently being updated using the global best practices including the IUCN- Conservation Planning Specialist Group - One Plan Approach.
g)	To identify priorities and themes with regard to display of captive animals in zoos	CZA is assisting recognized zoos in finalization of Master Plan for long-term future development. The CZA is also reviewing the previously approved Master (Layout) Plans of Zoos and Master Plan of Zoos to ensure the more insight of CZA for better development of the Zoos. During the reporting period, CZA has approved the Master (Layout) Plan of 2 zoos and approved the Master Plan of 5 zoos.
h)	To coordinate training of zoo personnel in India and outside India	CZA conducts dedicated in-person training programs at all verticals of zoo management such as - Zoo Managers, Veterinarian, Educationist, Biologist, Middle level official & Zoo Keepers.
i)	To coordinate research in captive breeding and educational programmes for the purposes of zoos	During the period, CZA has granted NOC to several research projects that have zoo/ ex-situ linkage. However, financial assistance was not provided to any research project as no such request was received.
j)	To provide technical and other assistance to zoos for their proper management and development on scientific lines	Revision of animal housing dimensions to be followed by zoos is in progress during the reporting period to provide technical assistance to zoos.
k)	To perform such other functions as may be necessary to carry out the purposes of this Act with regard to zoos	Nil

**b. Important activities undertaken**

- Capacity Building Programme (In-person, hybrid mode and virtually) were organized for Indian zoos professionals.
- The work regarding the establishment of National Referral Centre – Wildlife (NRC-W), Junagadh, Gujarat with the Central Zoo Authority (CZA) as the nodal agency has been taken up. The civil infrastructure development work for NRCW has been assigned to the Civil Construction Unit (CCU) of the Ministry of Environment, Forest & Climate Change (MoEFCC).

**c. Important cumulative achievements**

- During the reporting period, the Bannerghatta Biological Park, Bengaluru was recommended by the Technical Committee to assign the responsibility as a participating zoo in the conservation breeding programme of Long-billed Vulture.
- During the reporting period, the Central Zoo Authority has physically evaluated 25 zoos.

**d. Continuing committees / commissions – their work during the year and present**

**position:**

- Central Zoo Authority: Chaired by the Hon’ble Minister (EF&CC), tenure of the Central Zoo Authority is till 13.09.2026; 1 meeting convened in the reporting period;
- Administrative Committee: Chaired by the DGF & SS, tenure of the Administrative Committee is till 13.09.2026; no meetings convened in the reporting period;
- Technical Committee: Chaired by the ADGF (Wildlife), tenure of the Technical Committee is till 13.09.2026; 4 meetings convened in the reporting period;
- Expert Group on Zoo Designing: Chaired by the Member Secretary-CZA, tenure of the Expert Group on Zoo Designing is till 13.09.2026; 5 meetings convened in the reporting period;

**e. Important Conferences organized in India or international conferences**

During the reporting period, 2 in-person capacity building programme, was organized. The details are tabulated below:

Workshop/Training	Date of organization	Participation	Participants benefitted
Two-Day Workshop for Chief Wildlife Wardens and Zoo Directors/ Managers of the North-Eastern States in Assam	4–5 September 2025.	Chief Wildlife Wardens and Zoo Directors/ Managers of the North-Eastern States	25
Zoo Keeper Training for Eastern region at Tata Steel Zoological Park (for four days)	25–28 August 2025.	Zoo Keepers from 5 eastern states.	34

**f. List of major publications brought out – brief purpose of each, wherever necessary:**

1. Indian Zoo Yearbook, Vol. X – 2025.  
Details –The Indian Zoo Year Book serves as a

national repository of best practices, applied research, and experiential learning in zoo management, conservation breeding, and wildlife healthcare.



The Governing Body Meeting of the Central Zoo Authority held under the chairpersonship of Shri Bhupender Yadav, Hon'ble Minister for Environment, Forest and Climate Change, Government of India on 22nd April 2025, at Indira Paryavaran Bhawan, Jorbagh Road, Aliganj, New Delhi.

## 7.4 Project elephant

### 1. Project Elephant Division

#### a. Introduction, Objectives and Functions

India has considerable biological and cultural diversity, along with a history of conservation initiatives. Of the 13 Asian countries where elephants are present, India accounts for more than 60% of the global wild Asian elephant population. Asian elephants in India are mainly distributed across the southern, north-eastern, east central, and northern regions. The Asian elephant is listed as Endangered on the IUCN Red List, indicating a significant risk of extinction in the wild. In India, elephants are protected under Schedule I of the Wildlife Protection Act, 1972. To support habitat restoration and mitigate human-elephant conflict, the Government of India launched Project Elephant in 1992 as a Centrally Sponsored Scheme by the Ministry of Environment, Forests & Climate Change. The project was established with the following objectives:

- To protect elephants, their habitats, and corridors.
  - To address the challenges of human-elephant conflict.
  - To ensure the welfare of captive elephants.
- The implementation of Project Elephant is through the Centrally Sponsored Scheme-Project Tiger & Elephant with the grant to State Governments with a funding ratio of Central: State share of 60:40 and 90:10 for Northeast and Himalayan states. Presently the Project is being implemented in 23 States/UTs.

#### b. Important Activities Undertaken

- 21st Steering Committee Meeting of Project Elephant, chaired by Hon'ble Minister Shri Bhupendra Yadav at IGNFA, Dehradun, reviewed progress on corridors, conflict mitigation, and elephant reserve management.
- The World Elephant Day 2025 was organized jointly by the Ministry of Environment, Forest & Climate Change (MoEF&CC) and the Government of Tamil Nadu in Coimbatore to celebrate elephants as India's National Heritage Animals and promote their conservation. The world elephant day celebration was presided over by Hon'ble Union Minister of State for Environment, Forest and Climate Change, Shri Kirti Vardhan Singh in the esteemed presence of senior officials, conservationists, students, and representatives from civil society.
- Mass Awareness Campaign: NMNH and Project Elephant conducted outreach among 15 lakh students(approx) across 5,518 schools in southern India, administering a multilingual pledge for elephant conservation.
- The Gaj Gaurav Awards (2025) were presented during the World Elephant Day event for exemplary efforts in elephant conservation & management. The Award was conferred:
  - Jointly to Shri Ganesh Tamang (Mahout), Shri Sumit Gogoi (Attendant) from Arunachal Pradesh

- Jointly to Shri Kesu Singh Walke (Asst. Mahout), Shri Sahadan Ram Lakada (Asst. Mahout) from Madhya Pradesh
- Jointly to Shri M. Murali (Anti-Poaching Watcher), Shri S. Karthikeyan (Forest Guard) from Tamil Nadu

Shri Irshad Ali (Mahout) from Uttar Pradesh.

- Railway Collision Mitigation: MoEF&CC–WII–Railway jointly surveyed 127 (110 in elephant range and 17 in two tiger range states) vulnerable stretches spanning 3,452 km. Of these, 77 stretches (1,965 km across 14 States) prioritized for 705 mitigation structures (ramps, crossings, fencing, and overpasses).
- Elephant-Human Conflict in the State of Assam, Chhattisgarh and Jharkhand, India (2000-2023)- Trends, Challenges & Insights: The report, covering 2000–2023, analyses conflict trends using spatial data, field surveys, and forest department records to identify hotspots and assess the influence of land use changes on conflict severity and elephant mortality. It proposes mitigation strategies to promote coexistence between local communities and elephants and was released by the Hon’ble Minister, EFCC during the 21st Steering Committee Meeting of Project Elephant at IGNFA, Dehradun.
- Regional Action Plans (RAPs): The Regional Action Plan (RAP) aims to promote the long-term conservation of elephants and their habitats through a coordinated, landscape-based approach. Recognizing the transboundary movement of elephants, the RAP focuses on maintaining ecological connectivity, mitigating human-elephant conflicts (HEC), and fostering community participation. Drafting Committees have been constituted for Southern and North Eastern regions to prepare a draft plan.
- Advisory on Tusk Trimming in Captive Elephants: Elephant tusks, made of dentine (ivory), serve vital roles in foraging, defence,

and mating but are prone to fractures and diseases, especially in captivity. Proper tusk care, including safe trimming, is essential for their welfare, while improper methods can cause severe or fatal injuries. The advisory provides ethical and scientific guidelines for safe tusk trimming in captive elephants, ensuring compliance with animal welfare and legal standards. It was released by the Hon’ble Minister, EFCC during the 21st Steering Committee Meeting of Project Elephant at IGNFA, Dehradun.

- Healthy Feet, Healthy Elephants: Foot ailments such as abscesses, cracks, rot, arthritis, and infections are major causes of morbidity in captive elephants, often resulting from poor hygiene, improper trimming, unsuitable flooring, and lack of routine inspection. To address these issues, Project Elephant, in collaboration with veterinarians and technical experts, developed “Healthy Feet, Healthy Elephants: A Comprehensive Guide to Foot Care in Captive Asian Elephants”-the first structured, science-based manual offering practical guidance for mahouts, veterinarians, and caretakers on effective foot health management and welfare of captive elephants.

### c. Important Cumulative Achievements

- DNA Profiling of Captive Elephants: Over 2,000 biological samples (Approx. 70% of the captive elephant population) from 25 states have been collected and analysed via the Gajah Suchana App in collaboration with WII.
- All-India Synchronized Elephant Population Estimation (2022) completed nationwide.

### d. Continuing Committees/ Commissions

- A sub-committee to prepare a draft Regional Action Plan for Southern India Elephant Range States was constituted on 19.02.2025.
- Captive Elephant Healthcare and Welfare

Committee (CEHWC) – 5th meeting held on 07.03.2025.

- Central Project Elephant Monitoring Committee (CPEMC) – 8th meeting held on 17.03.2025.
- A sub-committee to prepare a draft Regional Action Plan for North- Eastern India Elephant Range States was constituted on 06.08.2025.
- A sub-committee to identify train-hit accidents hotspots from the last 10 years was constituted on 07.08.2025.
- A sub-committee to study overlapping areas of Tiger and Elephant Reserves was constituted on 24.09.2025.

#### e. Important Conferences/ Meetings

- Regional Consultation on HEC Management in Northeastern India held on 21 January 2025 at Guwahati.
- 21st Steering Committee Meeting of Project Elephant held on 26 June 2025 at IGNFA, Dehradun.
- Experience Sharing Workshop on Good Practices in Elephant Habitat Mngemnt, Corridor management and Human Elephant Conflict mitigation was held on August 12th 2025 at Coimbatore
- 22nd Steering Committee Meeting of Project Elephant held on 21st Decemeber 2025 at Sundarbans Tiger Reserve, West Bengal.

#### f. MEAs/ International Cooperation

- 4th Asian Elephant Range State meeting organized by IUCN from 5th to 7th February 2025, the meeting was attended by Shri Ramesh Kumar Pandey (IGF) and Dr. Dheeraj Mittal (AIGF).
- A two-member Indian delegation, led by Shri Ramesh Kumar Pandey, Additional Director General of Forests (Wildlife/Project Elephant), MoEFCC, along with Dr. Parag Nigam, Scientist 'G', Wildlife Institute of India, participated in the 12th Meeting of the IUCN Species Survival Commission (SSC) Asian

Elephant Specialist Group (AsESG) held in Bien Hoa, Vietnam, from 17th to 21st September 2025.

- Reported data of all MIKE sites in India for the year 2024 to CITES secretariat.

#### g. Major Publications

- i. Report on Suggested Measures to Mitigate Elephant & Other Wildlife Train Collisions on Vulnerable Railway Stretches: a consolidated report for 14 States.
- ii. State-wise report on understanding elephant conflict issues for suggesting conflict reduction measures for the States of Assam, Chhattisgarh and Jharkhand
- iii. Trumpet Newsletter (Vol. IV, Issue 3 & Vol. V, Issue 1) – quarterly updates.
- iv. Trumpet Special Edition – Elephants and Tribes of India – highlighting tribal participation in conservation.
- v. Healthy Feet, Healthy Elephants: A Guide to Foot Care in Captive Asian Elephants.
- vi. Elephant Care and Management: A Guide for Elephant Handlers
- vii. Trumpet Special Edition – Elephant Population Estimation and Use of Technology in mitigating Human Elephant conflict

#### 2. Scheme / Programme under Project Elephant Division

##### Centrally Sponsored Scheme – Project Elephant

##### a. Progress / Achievements

- Strengthened habitat protection and conflict mitigation across elephant range States.
- DNA profiling and digital documentation of captive elephants through Gajah Suchana App.
- Support extended to 23 States/UTs for protection, conservation, habitat improvement, human-elephant conflict mitigation and captive elephant welfare activities.
- Capacity building through regional workshops and training.
- Public awareness through World Elephant Day

celebrations, exhibitions, and publications.

### 3. Autonomous Bodies

The MoEF&CC has established the “Elephant Cell” at Wildlife Institute of India (WII), Dehradun

as a technical wing of the Project Elephant to provide technical inputs to the Ministry for strengthening the efforts towards conservation of elephants, both in the wild and in captivity.

### 4. Grant-in-Aid Released to Institutions / Organisations (Including NGOs) as on 19.11.2025

S. No.	Name of Organisation	Purpose	Total Amount Released	Status of Evaluation / Remarks
1.	State Forest Departments	For protection of elephants, their habitats, and corridors, to address the challenges of human-elephant conflict, to ensure the welfare of captive elephants.	₹ 18,73,71,118/-	Development Monitoring and Evaluation Office (DMEO) under NITI Aayog has commissioned a comprehensive evaluation of CSS under Package 8, covering the Environment, and Forest sectors for the period of 2019–20 to 2024–25. Comments in respect of Centrally sponsored scheme "Development of Wildlife habitat" (CSS:DWH) on the draft evaluation report has been shared to NITI Aayog on 22.09.2025.
2.	Wildlife Institute of India	Elephant Cell	₹ 1,08,51,756/-	Internally evaluated/monitored by Director WII.



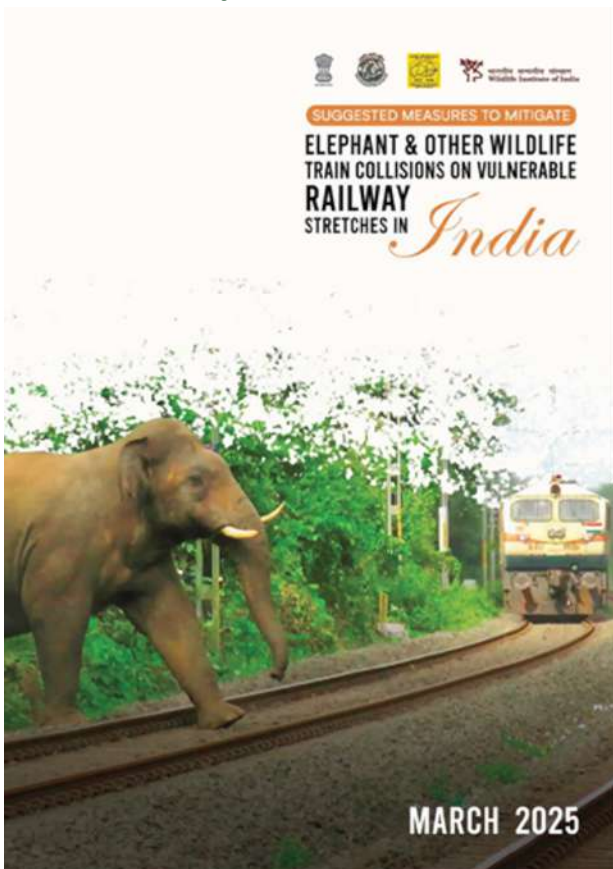
21st Steering Committee of PE



Gaj Gaurav Award 2025



Gaj Gaurav Award 2025



Train collision report cover

## 7.5 Project Tiger/ National Tiger Conservation Authority (NTCA)

### a. Introduction

The National Tiger Conservation Authority (NTCA) is a statutory body of the Ministry of Environment, Forest, and Climate Change

(MoEF&CC). Established in accordance with provisions of the Wildlife (Protection) Act, 1972, as amended in 2006, the NTCA plays a crucial role in steering tiger conservation efforts in the country. The organization operates within the mandate assigned to it by the said Act, with the primary objective of enhancing and enforcing measures for the protection of tigers and their habitats.

The National Tiger Conservation Authority (NTCA) has executed its mandate under the purview of the Wildlife (Protection) Act, 1972, focusing on strengthening tiger conservation efforts throughout the country. This involves maintaining an oversight through advisories and normative guidelines, which are formulated based on comprehensive assessments of the tiger's status, ongoing conservation projects, and recommendations from specially constituted committees.

To further its mission, the NTCA as per the National Tiger Conservation Authority (Normative Standards for Tourism and Project Tiger) Guidelines, 2012, extends financial support through the 'Project Tiger' initiative to 58 Tiger Reserves spanning 18 range states in the country along with provision for assisting tiger inhabited forests. 'Project Tiger' operates as a component of the Centrally Sponsored Scheme of Integrated Development of Wildlife Habitats, dedicated to the in-situ conservation of tigers. The scheme has played a pivotal role in securing the endangered tiger from the brink of extinction, as evidenced by the recent findings of the All-India Tiger Estimation (AITE) utilizing an improved methodology.

To achieve the Vision of Project Tiger of maintenance of a viable population of tigers in India for scientific, economic aesthetic, cultural and ecological values, and to preserve for all times, areas of biological importance as a national

heritage for the benefit, education and enjoyment of the people, the NTCA:

1. Provides statutory authority to Project Tiger so that compliance of its directives becomes legal.
2. Fosters accountability of Center and States in management of Tiger Reserves within our federal Structure, by providing for a tripartite MoU with States, Reserve Management and NTCA.
3. Provides for an oversight by Parliament.
4. Addresses livelihood interests of local people in areas surrounding Tiger Reserves.

### Functions of the NTCA

Powers and functions of the National Tiger Conservation Authority as prescribed under section 38 O of the Wildlife (Protection) Act, 1972, as amended in 2006 are as under: -

- a. to approve the tiger conservation plan prepared by the State Government under sub section (3) of Section 38 V of the Act
- b. evaluate and assess various aspects of sustainable ecology and disallow any ecologically unsustainable land use such as, mining, industry and other projects within the tiger reserves
- c. lay down normative standards for tourism activities and guidelines for project tiger from time to time for tiger conservation in the buffer and core area of tiger reserves and ensure their due compliance
- d. provide for management focus and measures for addressing conflicts of men and wild animal and to emphasize on co-existence in forest areas outside the National Parks, sanctuaries or tiger reserve, in the working plan code
- e. provide information on protection measures including future conservation plan, estimation of population of tiger and its natural prey species, status of habitats, disease surveillance, mortality survey, patrolling, reports on untoward happenings and such other

management aspects as it may deem fit including future plan conservation

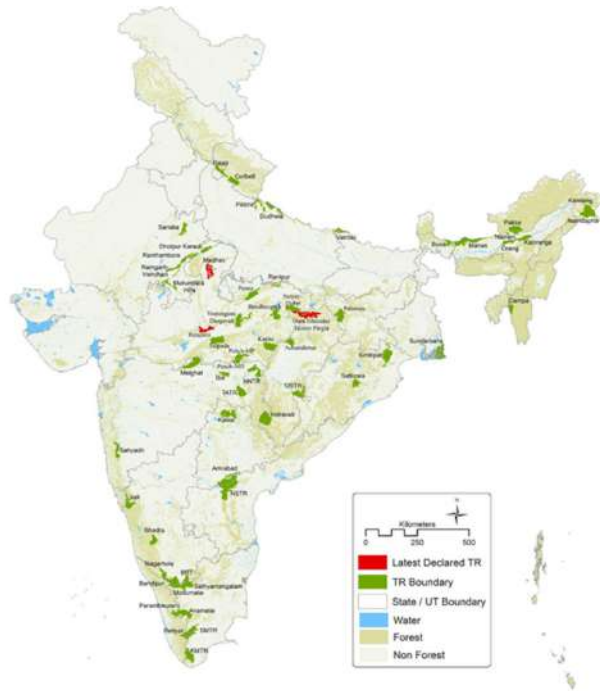
- f. approve, co-ordinate research and monitoring on tiger, co-predators, prey habitat, related ecological and socio-economic parameters and their evaluation
- g. ensure that the tiger reserves and areas linking one protected area or tiger reserve with another protected area or tiger reserve are not diverted for ecologically unsustainable uses, except in public interest and with the approval of the National Board for Wild Life and on the advice of the Tiger Conservation Authority
- h. facilitate and support the tiger reserve management in the State for biodiversity conservation initiatives through eco-development and people's participation as per approved management plans and to support similar initiatives in adjoining areas consistent with the Central and State laws
- i. ensure critical support including scientific, information technology and legal support for better implementation of the tiger conservation plan
- j. facilitate ongoing capacity building programme for skill development of officers and staff of tiger reserves, and
- k. perform such other functions as may be necessary to carry out the purposes of this Act with regard to conservation of tigers and their habitat.

Government of India through National Tiger Conservation Authority has undertaken the following milestone initiatives for conservation and protection of tiger and other wild animals.

### b. Important activities undertaken

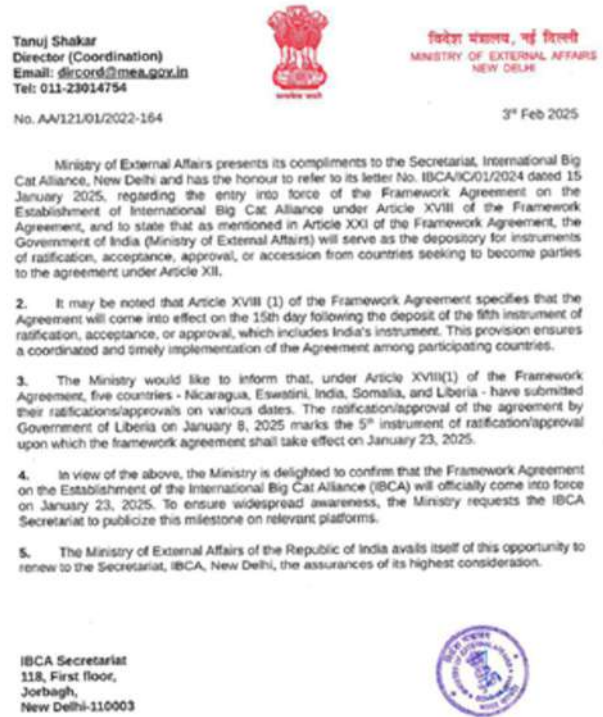
1. In total, three new tiger reserves have been notified/approved under Section 38V of the Wildlife (Protection) Act, 1972—Guru Ghasidas–Tamo Pingla Tiger Reserve (Chhattisgarh), Ratapani Tiger Reserve (Madhya Pradesh), and Madhav National Park (Madhya Pradesh). With these additions, the

total number of tiger reserves in India has increased to 58. The expansion has further strengthened the country's protected area network, bringing the area under tiger reserves to nearly 2.5% of India's geographical area.



## 2. International Big Cat Alliance

- a. 19 countries have joined IBCA (India, Nicaragua, Eswatini, Somalia, Liberia, Cambodia, Guinea, Suriname, Bhutan, Ethiopia, Armenia, Rwanda, Nepal, Guatemala, Mongolia, Eritrea, Angola, Malaysia, South Sudan) and 3 countries as Observer Country (Thailand, Kazakhstan, Namibia), along with 9 partner organizations and 3 strategic partners.
- b. The Framework agreement on the establishment of IBCA officially came into force in January, 2025.



- c. The Headquarters agreement was signed with the Government of India in April, 2025.



- d. First General Assembly of IBCA held in New Delhi, presided by the Minister of Environment Forest and Climate Change Sh. Bhupender Yadav, for collective action among big cat range countries



- e. Curtain raiser of IBCA addressed by the Minister of Environment Forest and Climate Change Sh. Bhupender Yadav.



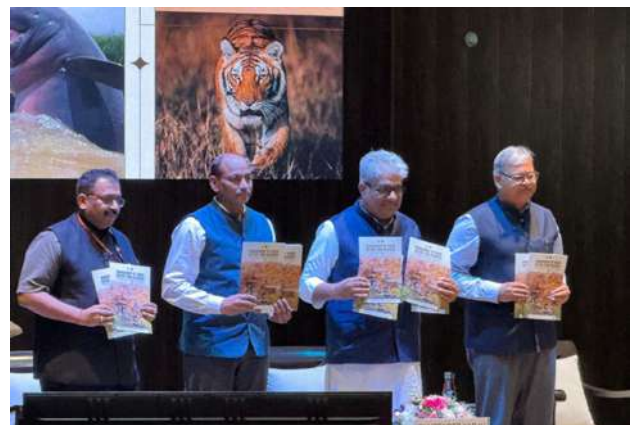
- f. Global Big Cat Summit- The tentative date for the conduct of the International Big Cat Conference would be during the 3rd Quarter of 2026. Rs.30 Crore agreed by the DoE. File with DoE for allotment of Rs.30 Crore.
- 3. Global Tiger Day, 2025- Global Tiger Day was celebrated wherein nearly 2000 school children

participated in the week-long celebrations wherein documentaries on tigers, to a painting contest, lively interactions, tour of the National Zoological Park and a tiger exhibition, school students were inspired to stand up for the national animal. Eleven frontline forest staff from various tiger reserves of India were felicitated by the Hon'ble Minister and Minister of State, Environment, Forest & Climate Change, for their extraordinary performance in the field.





4. Art Exhibition- In October 2025, the fourth edition of tribal art exhibition- Silent Conversation: From Margins to the Centre was organized in collaboration with the Sankala Foundation. The artworks showcased the deep-rooted connections between Indigenous communities and the ecological systems they have nurtured for centuries. Curated with the close involvement of tribal artists residing within these biodiverse regions, the exhibition provided a vivid window into how nature, ritual, and culture come together to form uniquely vibrant visual traditions.
5. Management of Tigers Outside Tiger Reserves- Announced by the Hon'ble PM, Shri Narendra Modi, in March 2025, and officially launched by the Hon'ble Minister, Shri Bhupender Yadav, in October 2025, the project aims to address the emerging challenge of human-wildlife conflict in the divisions outside tiger reserves, through capacity building, technological advances, awareness and outreach, and the development of necessary infrastructure for strategically and scientifically dealing with HWC. Phase I of the project is being implemented in 40 divisions across 9 states of India.



6. Meeting of the Authority- 27th meeting of NTCA was held in Bhopal, headed by the chairman Sh. Bhupender Yadav. Deliberations were made on the status and trajectory of management of tiger reserves along with the release of the “Status of Ungulates” report.



### c. Progress/Innovations

1. India begins Sixth Cycle of All India Tiger Estimation 2026

On August 22, 2025, the NTCA and Wildlife Institute of India (WII) hosted a meeting of State Nodal Officers, in Dehradun, to formally commence the 6th Cycle of the All India Tiger Estimation (AITE) 2026. This was followed by subsequent landscape-level training workshops to ensure the effective implementation and successful conduct of the estimation exercise.

- Training of Trainers-Central India and Eastern Ghats- The first workshop took place from 15th to 17th September 2025, at Pench Tiger Reserve, catering to participants from Madhya Pradesh, Odisha, Maharashtra, Jharkhand, and Chhattisgarh. This landscape covers a substantial portion of India’s central tiger presence areas.
- Training of Trainers-Southern Zone- The second workshop, from 24th to 26th September 2025, was jointly organized at Bandipur and Mudumalai Tiger Reserves,

both part of the Nilgiri biosphere, one of the most critical tiger strongholds in the world. Forest personnel from Telangana, Andhra Pradesh, Karnataka, Kerala, and Tamil Nadu took part in this training.

- Training of Trainers-Sundarbans- A dedicated workshop was held at the unique and challenging landscape of the Sundarban Tiger Reserve from 28th to 30th October 2025, attended by field personnel from the tiger reserve and the biosphere reserve. The sessions focused on adaptive monitoring strategies suitable for mangrove habitats where traditional methods often need contextual modification.
- Training of Trainers-North and West Zone- Another key workshop was hosted jointly at the Wildlife Institute of India and Rajaji Tiger Reserve from 18th to 20th November 2025, bringing together teams from Rajasthan, Uttarakhand, Uttar Pradesh, and Bihar. The training focused on the tiger bearing regions of Shivalik Hills and Gangetic Plains, as well as the arid and semi-arid areas of Rajasthan.
- Training of Trainers-Northeast India- The northeastern zone workshop at Nameri Tiger Reserve was held from 18th to 20th November 2025, and saw participation from Mizoram, North Bengal, Sikkim, Assam, and Arunachal Pradesh. Due to different administrative units, sessions on field methodologies and hand-on training were conducted separately for Tiger Reserves and non-tiger reserve participants





2. Regional level training of frontline forest staff was conducted in various tiger reserves of India, including forest personnel from tiger-bearing forests outside tiger reserves also. Following the trainings, India began the ground surveys, including Phase I exercise (consisting of carnivore sign survey and line transects) and Phase III (camera trapping) exercises.
3. Project Cheetah continues to make history, marking a remarkable chapter in global wildlife conservation. As of December 2025, the reintroduction program has recorded 30 cheetahs, including 19 cubs born in India. 8. An Indian born cheetah bore a litter of 5 cubs which marked a historical milestone in Project Cheetah demonstrating how the species is gradually adapting to Indian conditions.
4. In November, the President of India visited Botswana, where India was officially handed over 8 cheetahs by Botswana. These cheetahs were successfully released into quarantine facilities, ahead of their translocation to India.



#### d. Important Conferences organized in India or international conferences

1. Field Directors Conference- A meeting was organized, in March 2025, for Chief Wildlife Wardens of States and Field Directors from tiger reserves across the country to deliberate and brainstorm on key thematic areas of conservation. The sessions fostered a collaborative and participatory environment, enabling the sharing of insights, experiences, and strategies to address emerging challenges in tiger conservation and habitat management. The booklet “Counting Tigers,” detailing the methodology for the upcoming sixth cycle of the All India Tiger Estimation, was formally released by the Director General of Forests and Special Secretary, Shri Sushil Awasthi.



2. Regional Workshops- Four regional workshops were convened across distinct landscapes to review field-level challenges and identify priority management actions for tiger conservation. These were conducted in Manas Tiger Reserve, Assam (May 28-29, 2025), Mudumalai Tiger Reserve, Tamil Nadu (June 17-18, 2025), Tadoba-Andhari Tiger Reserve, Maharashtra (July 1-2, 2025) and Rajaji Tiger Reserve and WII (July 16-17, 2025), and attended by the CWLWs, PCCFs of States, FDs and DFOs of tiger reserves. Based on the discussions undertaken during the meeting, key challenges in

tiger reserve management were identified and necessary actions were taken by the Authority to address these issues.



3. NTCA participated in the technical session on management of locally abundant herbivores and large carnivores outside protected areas at WILDCON 2025 in Tadoba Andhari tiger reserve, Maharashtra
4. MS-NTCA presented the journey of cheetah reintroduction in India at 78th CITES held in Geneva, Switzerland
5. ADG-PT & MS-NTCA, Dr. Gobind Sagar Bhardwaj, made opening remarks at the High-Altitude Tigers workshop organized by the Global Tiger Forum

#### e. International Cooperation

1. A delegation from frontline forest officials from Bhutan visited NTCA headquarters during an exposure visit to India, and

deliberated upon tiger conservation and management of human-wildlife interface.



2. Delegation from Cambodia oriented towards management practices for tiger conservation in India at Mudumalai and Bandipur tiger reserves as a part of the ongoing bilateral between the countries for strengthening cooperation in wildlife management.



3. In June 2025, an Indian delegation visited South Africa to discuss the progress of Project Cheetah, sharing key updates on achievements, challenges, and future plans. During the visit, India formally handed over all technical and monitoring reports detailing the cheetahs' adaptation, health, ecology, and habitat status. The two countries also finalized the Terms of Reference for the Joint Working Group (JWG), which will serve as an important mechanism to review ongoing progress and further strengthen bilateral cooperation in wildlife conservation. A

delegation from South Africa visited India in November 2025 to advance discussions on the progress and future opportunities in Project Cheetah.



4. An Indian delegation visited Namibia from July 27–30, 2025, to discuss the next phase of Project Cheetah. Both sides agreed to advance cooperation under the MoU on Cheetah Conservation, with India formally seeking 8–10 cheetahs on August 20, 2025, and the High Commission of India, in coordination with Namibia's environment and foreign ministries and the Cheetah Conservation Fund, is actively pursuing the required documentation to facilitate the process.



5. An Indian delegation visited Botswana from September 8–12, 2025, to advance

collaboration under Project Cheetah. The visit reaffirmed the strong partnership between India and Botswana in wildlife conservation and underscored shared commitment to the long-term success of global cheetah recovery efforts. A delegation from Botswana visited India in December 2025 to deliberate on conservation cooperation and the future of cheetah reintroduction in India, and visit the cheetah introduction sites in India.

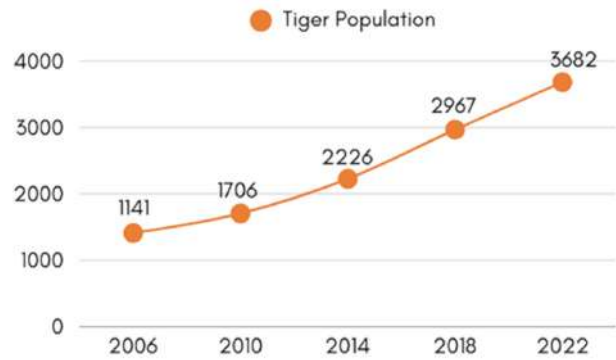


- Estimation.
- 2. Status of Ungulates in the Tiger Landscapes of India- The first nationwide assessment of ungulates in India, presenting landscape and reserve-wise distribution, occupancy and density of species.
- 3. Status of Small Cats in the Tiger Landscapes of India- The first nationwide assessment of small wild cats in India presenting the occupancy status and trend of 9 species.
- 4. STRIPES magazine- Global Tiger Day edition- Outreach magazine of the NTCA highlighting the major milestones achieved by India.
- 5. STRIPES magazine- December edition- Outreach magazine of the NTCA, including articles on the dispersal and movement of tigers in different landscapes, commencement of the 6th cycle of AITE and presenting latest updates on Project Cheetah and IBCA
- 6. Tigerverse- A compilation of the little known facts about the tiger reserves of India, highlighting the ecological, geographical, historical and cultural diversity protected by these reserves.
- 7. Updates on Project Cheetah- the developments and milestones achieved in the 3 years of project cheetah.
- 8. NTCA activities and initiatives dossier- A compilation of the activities and initiatives undertaken by the NTCA.

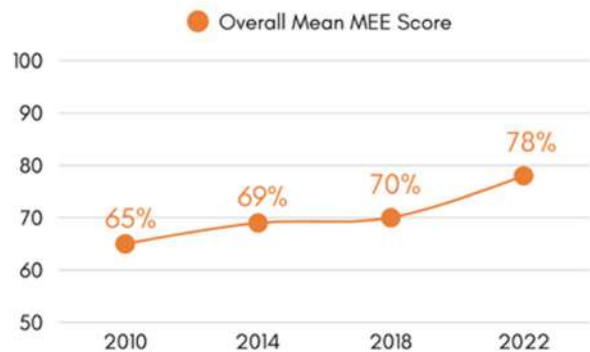
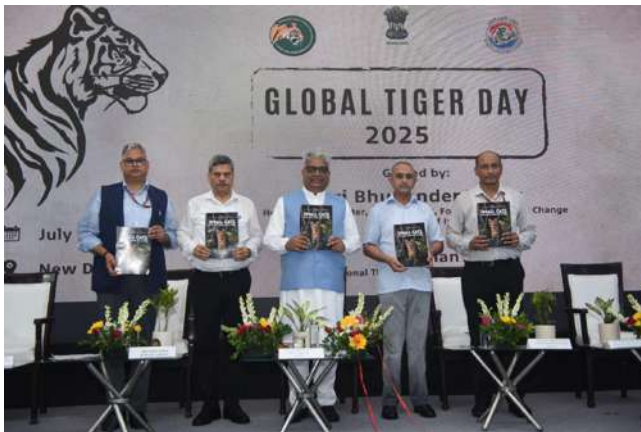
**f. Key Publications**

- 1. Counting Tigers- detailing the methodology for the upcoming sixth cycle of the All India Tiger





- The All India Tiger Estimation exercise, conducted quadrennially, has been recognised as the world’s largest camera-trap survey by the Guinness World Records.
- Over the years, India’s tiger reserves have also been improving protection and management strategies for tiger conservation, resulting in the increase in the overall Management Effectiveness Evaluation (MEE) scores.



**g. Cumulative Achievements**

1. The tiger population in India has seen a steady annual growth of 6%, from 1411 in 2006 to 3682 in 2022. India presently harbors approximately 70% of the global wild tiger population.

4. Since its launch three years ago, project cheetah has witnessed significant milestones. From 20 cheetahs (8 from Namibia and 12 from South Africa), the population has grown to 30 (as of December 2025), with 11 Indian born cheetahs reaching adult/sub-adulthood and 8 Indian born cubs under mother’s care. Three cheetahs (two males and one female) were released in Gandhisagar Wildlife Sanctuary.

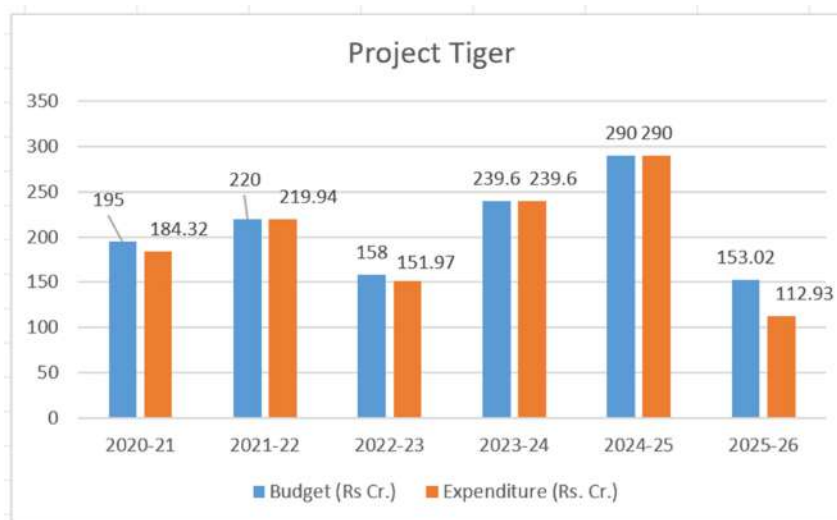


formative years, the Project Tiger coverage has increased to 58 covering ~84000 sq. km, spread out in 18 of our tiger range states. This amounts to around 2.23% of the geographical area of our country.

- The tiger reserves are constituted on a core/buffer strategy. The core areas have the legal status of a national park or a sanctuary, whereas the buffer or peripheral areas are a mix of forest and non-forest land, managed as a multiple use area. The Project Tiger aims to foster an exclusive tiger agenda in the core areas of tiger reserves, with an inclusive people oriented agenda in the buffer.
- Project Tiger is an ongoing Centrally Sponsored Scheme of the Ministry of Environment, Forests and Climate Change providing central assistance to the tiger States for tiger conservation in designated tiger reserves.
- The National Tiger Conservation Authority (NTCA) is a statutory body of the Ministry, with an overarching supervisory / coordination role, performing functions as provided in the Wildlife (Protection) Act, 1972.

### Scheme- Project Tiger

- The Government of India has taken a pioneering initiative for conserving its national animal, the tiger, by launching the “Project Tiger” in 1973. From 9 tiger reserves since its
- Performance of the Scheme over the last five years may be seen in the graph below:



## Grant-in-aid released to Institutions/Organizations including NGOs

Sl. No.	Name of Organisation	Purpose	Total Amount Released (Amount in Rs.)
1	Wildlife Institute of India	AITE	9,86,00,000
		Tiger Cell	1,64,76,742
		Mstripe	50,05,000
		Action Plan for Introduction of the Cheetah in India	2,94,09,030
		Conservation of Tigers in North East India	20,00,000
		Intensive Monitoring and study of tiger dispersal in Kanha Tiger Reserve, Madhya Pradesh	28,63,800
		Cooperation between Ministry of Environment of Cambodia & India	15,78,720
		Project Batagur	25,00,000
		Long term Monitoring	30,97,500
2.	Global Tiger Forum	Management Planning of Protected Area in Tiger Landscape	36,00,000
3.	International Big Cat Alliance	Establishment of IBCA	14,10,00,000
4.	National Zoological Park, New Delhi	For Global Tiger Day	18,84,000
5.	Sundarban Tiger Conservation Foundation	NTCA 28th Meeting,	10,00,000
6.	Nameri Tiger Conservation Foundation	Project Development of Conservation of clouded leopard	20,00,000
7.	Sankhla Foundation	Collaboration and Support for Organising Tribal Exhibition at New Delhi	39,39,000

## 7.6 Wildlife Institute of India

### a. Introduction

Wildlife Institute of India (WII) was established at Dehradun in 1986 as an autonomous institute of the Ministry of Environment, Forest & Climate Change, Government of India. The Institute has emerged as a premier training and research institution in Wildlife and Protected Area Management in South and Southeast Asia. Its primary mandates are to (i) carry out scientific and applied research on various issues of wildlife and biodiversity conservation, (ii) develop wildlife science as a discipline through academic activities, (iii) build capacity in the field of wildlife management and conservation planning, and (iv) provide technical inputs to MoEFCC and other stakeholders. The Institute has generated quality information and knowledge products in wildlife science through research and mainstreamed them in capacity-building programmes for various target groups.

The Sálím Ali Centre for Ornithology and Natural History (SACON), established in 1990 and registered as a society under the Societies Registration Act of 1860, is now functioning as the South India Centre of the Wildlife Institute of India (WII) under the Ministry of Environment, Forest and Climate Change (MoEFCC), Government of India. Founded to promote ornithological research, SACON's objectives encompassed a wide range of natural history studies, focusing on bird conservation and the ecosystems that support them. The recent merger with WII reflects the Government of India's move to integrate SACON's ornithology legacy with WII's extensive expertise in wildlife conservation.

### b. Research

#### i. Research Projects

Wildlife research at the Institute is predominantly multidisciplinary, covering ecological, biological and socio-economic

aspects across various ecosystems in the country. The research projects generate valuable scientific information relevant to the Indian conditions and create a cadre of trained field biologists, socio-economists and wildlife managers. The scientific information generated is utilized for wildlife conservation and management. Research also enables the Institute's faculty to keep abreast of the current field situations, management needs and research trends, continuously enhance their professional skills, and update their teaching inputs. The research agenda is guided by the Training, Research Advisory Committee (TRAC), comprising eminent conservationists, academicians, representatives of scientific organizations, and state wildlife organizations, ensuring that research conforms to the national conservation priorities.

#### Major Research Projects Completed during the Reporting Period

- Pan India Assessment and Monitoring of Endangered species under Integrated Development of Wildlife Habitats (IDWH)-Red Panda
- Integrated Wildlife Action Plan Comprising Mitigation and Compensating Measures with Landscape Approach for the Entire Forest Area in Hazaribagh Wildlife Forest Division, Hazaribagh West Forest Division, and Koderma Forest Division in the Impact Zone of Koderma Detour.
- Studies on Western Ghats Ecology and Development of Wildlife Conservation and Mitigation Plan for Kaiga Atomic Power Project Unit 5 & 6, Uttara Kannada, Karnataka, India.
- Wildlife Conservation Plan of Greenko UP01 Off Stream Closed Loop Pumped Storage Project (OCPSP) of 3660 MW falling in Sonbhadra and Obra Forest Divisions, Uttar

- Pradesh.
- Study the Various Impacts that may occur due to the Desilting of the Harike Wetland.
  - Understanding Population Dynamics, Space Use, Movement and Diet of Leopards in Junnar Taluka, Maharashtra, for Human–Leopard Conflict Mitigation. Understanding Large Carnivore Conflict Issues in Maharashtra for Suggesting Conflict Reduction Measures.
  - Countrywide monitoring of tiger, co-predator, prey and Habitat.
  - Range-wide estimation of the river Dolphin.
  - Development of a genetic database of captive elephants across India for welfare and management.
  - Assessment of genetic variation and reproductive hormone profiles in selected endangered species of conservation interest at the Padmaja Naidu Himalayan Zoological Park, West Bengal.
  - An Integrated Approach to Biodiversity Conservation in Nanda Devi Biosphere Reserve, Uttarakhand.
  - Pan India Assessment and Monitoring of Endangered Species under IDWH : caracal, wild buffalo, one-horned rhino, fishing cat, and clouded leopard
  - Conservation Ecology of Endangered Reticulated Python *Malayopython reticulatus* Schneider, 1801) in the Nicobar Archipelago.
  - Development of Landscape Management Plan and Monitoring with reference to Ken-Betwa River Link Project in Panna Tiger Reserve, Madhya Pradesh”
  - A comprehensive study on the Ecology and Population Status of a human commensal – the House Sparrow *Passer domesticus* in the Uttarakhand State.
  - Assessing the ecosystem services provided by colonial nesting waterbirds in and around select wetlands of Tamil Nadu.
  - Assessment of Wildlife Values along a one km segment upstream of the National Chambal Gharial Sanctuary from Kota Barrage to Hanging Bridge, Rajasthan.
  - Assessment of the ecological status of the select Indian rivers for conservation planning.
- c. Academic Programs**
- XIX M.Sc. (Wildlife Science) Course 2023-25  
The 3rd Semester Examinations of The XIX MSc Wildlife Science Course were conducted during November 2024. After completion and submission of dissertation by the students, final results were declared by AcSIR in June, 2025 and the XIX M.Sc. Course in Wildlife Science was successfully completed.
  - XX M.Sc. (Wildlife Science) Course 2024-26  
XX M.Sc. course in Wildlife Science commenced at the Institute in August 2024. A total of 18 students, including one foreign student, joined the course. Their Orientation tour was carried out in the Lansdowne Forest Division of Rajaji Tiger Reserve in August 2024 and The Field Tour to Central India was conducted in the state of Madhya Pradesh during the months of November – December, 2024.
- The 3rd Semester Examinations of the XX M.Sc. were successfully completed during the month of November 2025. Subsequently, after submission and presentations of dissertation proposal by the students of XX M.Sc., they are in field for their dissertation work.
- XXI M.Sc. (Wildlife Science) Course 2025-27  
The XXI M.Sc. (Wildlife Science) Course commenced at the Institute in August 2025 with an intake of 19 students, including one international student. The orientation tour was conducted from 15 to 26 September 2025 in the Kotdi and Dugadha ranges of the Lansdowne

Forest Division. Subsequently, the Technique Tour for the XXI batch was held from 8 to 21 November 2025 in the Rajaji Tiger Reserve.

- First M.Sc. (Freshwater Ecology & Conservation) Course 2024-26  
WII has commenced ‘Freshwater Ecology and Conservation (2024-2026)’, a pioneering course to understand the nuances of freshwater ecosystems. The course has been fully sponsored and funded by the National Mission for Clean Ganga (NMCG), Ministry of Jal Shakti, Govt. of India, under the “Namami Gange” programme.

A total of 14 students have joined the course to gain knowledge on concepts, principles, approaches, analytical skills and field techniques in Freshwater Ecology and Conservation from eminent scientists and field practitioners in freshwater ecology. During the reporting period, several external experts were invited to deliver lectures to MSc students, both online and offline. Five Field Techniques and Wetland Tours have been conducted for the 1st M.Sc. Course in Freshwater Ecology and Conservation (FWEC) during the reporting Period

#### d. Training Programmes

- XLV P.G. DIPLOMA COURSE IN ADVANCED WILDLIFE MANAGEMENT (01.09.2024 TO 30.06.2025)

The 10-month P.G. Diploma in Advanced Wildlife Management commenced from 01st September 2024 at the Institute with 17 officer trainees of the rank of Deputy Conservator of Forests / Assistant Conservator of Forests and equivalent levels. The officers represented the following States - 02 each from Odisha, Himachal Pradesh and Madhya Pradesh and West Bengal, 01 each from Uttar Pradesh,

Bihar, Jharkhand, Rajasthan, Uttarakhand, Telangana, Andhra Pradesh, Maharashtra and Goa.

- XLVI P.G. DIPLOMA COURSE IN ADVANCED WILDLIFE MANAGEMENT (01.09.2025 to present)

The 10-month P.G. Diploma in Advanced Wildlife Management commenced from 01st September 2025 at the Institute with 20 officer trainees of the rank of Deputy Conservator of Forests / Assistant Conservator of Forests and equivalent levels. The officers represented the following States - 04 from Odisha, 02 from Himachal Pradesh, 06 from Madhya Pradesh, 02 from West Bengal, 03 from Rajasthan, 01 each from Karnataka, Tripura and Uttarakhand

- 39th Certificate Course in Wildlife Management, Dehradun, 1 November 2024 – 31 January 2025  
XXXIX Certificate Course in Wildlife Management commenced on 1 November 2024. A total of 22 in-service Range Forest Officers / Deputy Range Forest Officers or equivalent ranks from various States of the country joined the course.

#### e. Workshops, Seminars, Meetings and Other Activities

A large number of activities were conducted during the reporting period. The information on some important events is given below:

- Celebration of World Wetlands Day, 02 February 2025.
- Mission LiFE cum Awareness Programme at Panna, MP from 11-22 February 2025.
- Campus Bird Count under Great Backyard Bird Count, 14 - 17 February 2025.
- Awareness Cum Mission LiFE Programme at IRALE Conference 26-28 Feb. 2025.

- Celebration of World Sparrow Day and World Rewilding Day, 20 March 2025.
- International Day of Forests, 21 March 2025.
- Celebration of World Heritage Day, 18 April 2025.
- Celebration of World Earth Day, 22 April 2025.
- Mission LiFE Outreach and Pledge Ceremony – May 2025.
- Celebration of International Day for Biological Diversity, 22 May 2025.
- Celebration of World Environment Day, 05 June 2025.
- Celebration of World Ocean Day, 08 June 2025.
- Celebration of World Day to Combat Desertification and Drought, 17 June 2025.
- International Day of Yoga, 21 June 2025.
- Celebration of Van Mahotsav Saptah from 04 – 08 July and 09 – 14 July, 2025.
- Celebration of International Day for the Conservation of Mangrove Ecosystems, 26 July 2025
- Celebration of International Tiger Day, 29 July 2025
- Celebration of World Lion Day, 10 August 2025
- Celebration of World Elephant Day, 12 August 2025
- National Hackathon on Human-Wildlife Coexistence: Engaging Youth for Innovative Solutions - September – October, 2025
- Celebration of National Wildlife Week, 06 October 2025
- 18th Internal Annual Research Seminar (IARS) during 07–08 October, 2025.
- XXVI (36th) Annual Research Seminar (ARS) of the Wildlife Institute of India (WII), Dehradun on 14-15 October, 2025
- Celebration of International Snow Leopard Day, 23 October 2025
- Celebration of World Tiger Beetle Day, 11 November 2025
- One-day Module on “Emerging Challenges in Wildlife-Human Conflict: The Coexistence Challenge in Farmland Habitats” for IFS Officers at WII, 30 April 2025.
- One-day Module on Advances in Human-Wildlife Conflict Management for IFS Officers at WII, 28 May 2025.
- Four-day IGNEFA-WII Elective Module on Managing Human-Wildlife Coexistence in Agricultural Landscape, 11 – 16 June 2025.
- EIACP National Evaluation Workshop, 18 – 20 September 2025.
- Youth for Nature & Coexistence National Conference (Y4NC 2025), 04 October 2025.



# Chapter 8

## CLIMATE CHANGE



## 8.1 Climate Change

### a. Introduction, objectives, and functions

The Ministry of Environment, Forest and Climate Change (MoEFCC) serve as the nodal agency for India's climate change policy. Within the Ministry, the Division is responsible for planning, coordinating, and overseeing the nation's comprehensive response to the climate crisis. The Division anchors India's engagement with the United Nations Framework Convention on Climate Change (UNFCCC), its Kyoto Protocol, and Paris Agreement, ensuring that national interests are effectively represented in global negotiations, including the annual session of Conference of the Parties (COP) to UNFCCC.

The Division coordinates with Adaptation Cell, National Communications (NATCOM) Cell, Climate Finance Vertical and the Cell for Carbon Market and Article 6 of the Paris Agreement to collectively manage diverse aspects of climate policy, ranging from international reporting (Transparency Framework) to the development of domestic carbon markets.

Domestically, the Division acts as the central coordinator for the National Action Plan on Climate Change (NAPCC), monitoring the progress of its nine sectoral missions. In addition, it oversees preparation of State Governments in formulating State Action Plans on Climate Change (SAPCCs) to ensure that climate objectives are mainstreamed into sub-national development strategies. The Division is instrumental in formulating India's key climate instruments, including the Nationally Determined Contributions (NDC) and the National Action Plan for Climate Change. By aligning the international commitments with national priorities, the Division ensures policy coherence. It functions as the strategic bridge between global climate obligations and India's developmental aspirations, ensuring that climate action remains participatory, transparent, and evidence-based.

### b. Important Activities undertaken

- Preparation of India's Successive Nationally Determined Contribution
- India's participation at 30th Session of Conference of Parties to the UNFCCC (COP 30) held at Belem, Brazil in November, 2025
- India's participation in 62nd Session of Subsidiary Bodies to the UNFCCC held in June 2025 at Bonn Germany.
- Revision of National Action Plan on Climate Change
- Conceptualising the proposal to setup State Climate Forum
- Preparation of State Action Plan on Climate Change by the States of Maharashtra, Meghalaya and UT of Chandigarh

### c. Progress / Innovation

- India's participation at 30th Session of Conference of Parties to the UNFCCC (COP 30) held at Belem, Brazil in November, 2025
- Preparation of State Action Plan on Climate Change by the States of Maharashtra, Meghalaya, and UT of Chandigarh

### d. Important Cumulative Achievements

An inter-ministerial delegation led by the Hon'ble Minister of Environment, Forest and Climate Change and comprising of representatives from Ministry of External Affairs, Ministry of Power, Ministry of New and Renewable Energy, Ministry of Agriculture and Farmers Welfare, Ministry of Information and Broadcasting and the Ministry of Environment, Forest and Climate Change participated in COP 30.

The COP30 commenced amid expectations that it could mark a defining moment for advancing the priorities of the Global South. The Conference placed strong emphasis on translating commitments under the Paris Agreement into concrete action, with particular focus on climate finance, adaptation planning, and implementation frameworks. COP30 was significant as it was to take place when most of

the items of Paris Agreement rule were operational. The Brazilian Presidency underscored the need for meaningful and balanced outcomes across key agenda items, including enhanced climate finance, progress towards the Global Goal on Adaptation, advancement of the mitigation work programme, and operationalisation of the work programme on just transition. In addition, the Presidency has highlighted the importance of advancing the Gender Action Plan, strengthening technology implementation mechanisms, and addressing issues related to response measures, with a view to ensuring inclusive, equitable, and effective climate action.

India adopted a positive, constructive, and bridge-building approach during COP30 negotiations. This approach contributed to strengthening the collective voice of developing countries in shaping the conference outcomes. India worked closely with other developing country groups and negotiation platforms, including the G77 and China, the Like-Minded Developing Countries (LMDC), and BASIC, fostering strong convergence on key issues. India served as the spokesperson for the LMDC group and as Chair of BASIC, playing an active leadership role in advancing shared priorities. Throughout the negotiations, India effectively safeguarded its interests across major agenda items while maintaining broad engagement and avoiding isolation in the negotiation process.

The Hon'ble Minister of Environment, Forest and Climate Change delivered India's National Statement during the High-level Segment of COP 30. India called upon developed countries to demonstrate enhanced climate ambition and to honour their commitments under the Paris Agreement. It was emphasized that developed countries must achieve net-zero emissions significantly earlier than their current target timelines and deliver new, additional, and concessional climate finance at a scale commensurate with the challenge i.e. amounting to trillions rather than billions of dollars. India also highlighted the critical importance

of ensuring that climate technologies are affordable and accessible, stressing that such technologies should not be constrained by restrictive intellectual property barriers. The progress on India's international commitments towards global climate actions was highlighted to demonstrate that economic development and environmental stewardship can progress simultaneously. In this context, it was conveyed that India's emission intensity has declined by over 36 percent since 2005, and that non-fossil fuel sources now constitute more than half of the country's total installed electricity capacity, which lead to achievement of one of India updated NDC (2021-30) targets five years ahead of the 2030 timeline.



To highlight our global leadership, India also referred to the initiatives such as the International Solar Alliance and the Global Biofuel Alliance, as well as the momentum generated by the Nuclear Mission and the Green Hydrogen Mission in advancing India's pathway towards net zero by 2070. It was informed that in alignment with the Paris Agreement's objectives on conserving and enhancing carbon sinks, more than two billion plants were planted through community-led efforts within a span of sixteen months.

On the climate finance; through the Like-Minded Developing Countries (LMDC) platform, India played a key role in securing a two-year work pro-

gramme on climate finance, including deliberations on Article 9 in the context of Article 9.1 of the Paris Agreement. This outcome reinforces the renewed emphasis on the climate finance obligations of developed countries as stipulated under Article 9.1, while also creating avenues for enhanced and additional financial support to developing countries. The Parties further agreed to pursue efforts to at least triple adaptation finance by 2035 relative to 2025 levels, with developed countries being urged to significantly scale up the trajectory of their collective provision of climate adaptation finance to developing countries.

The Parties agreed to adopt a set of 59 indicators to monitor progress towards the Global Goal on Adaptation (GGA). These indicators are voluntary, non-prescriptive, and non-intrusive in nature, and do not entail any additional reporting requirements for countries. This outcome is consistent with India's position and preserves national flexibility.

Overall, Indian delegation emphasized for recalibration of priorities, moving beyond a narrowly mitigation-focused framework to place stronger emphasis on adaptation and the means of implementation, particularly finance and technology. The net-zero narrative was appropriately corrected to reflect a global objective around 2050, rather than a one-size-fits-all deadline for countries, in recognition of differentiated national pathways such as India's commitment to achieve net-zero by 2070. Furthermore, attempts to advance top-down approaches through the Global Stocktake and synthesis reports were resisted, underscoring the importance of equity, national circumstances, and bottom-up action.

Hon'ble Minister of Environment, Forest and Climate Change anchored the negotiations on Technology Implementation Programme (TIP). Under the TIP, the Country Parties have agreed to focus on accelerating on-ground deployment of climate

technologies in developing countries; address barriers across the technology cycle; support national innovation systems; build capacity for bankable project preparation; and enhance access to finance and partnerships, helping countries convert technology needs into implementable solutions aligned with NDCs and adaptation priorities.



During the closing plenary, India expressed its support and appreciation to Brazil and the international community for their cooperation. It called upon all Parties to make collective efforts to ensure that the path forward from Belém leads to a future grounded in fairness, solidarity, and shared prosperity for all. Reiterating India's principled approach to climate action, the India underscored the imperative that the burden of climate change mitigation must not be transferred to those who bear the least responsibility for its causes. It emphasized the urgent need for enhanced global support to vulnerable populations, predominantly located in the Global South, to enable them to effectively safeguard themselves against the intensifying impacts of climate change. India reaffirmed its steadfast commitment to science-based and equitable climate action, while reiterating its support for a rules-based global order that is fair, inclusive, and respectful of national sovereignty. The Statement further noted India's resolve to collaborate with all Parties to ensure that global climate ambition re-

mains inclusive, just, and equitable.

- **Thematic Installation at COP 30 in Belém.**  
At COP-30 in Belém, a thematic installation was setup to promote essence of community participation and a citizen-centric approach to collective climate action. The installation showcased initiatives such as **Ek Ped Maa Ke Naam and Mission LiFE (Lifestyle for Environment)**, which advocate sustainable living through everyday behavioral changes. It encouraged, inter-alia, actions such as conserving energy and water, adopting sustainable food choices, managing waste through Reduce, Reuse and Recycle, minimizing plastic use through cloth bags and reusable bottles, and opting for environmentally friendly products. Anchored in India's traditional wisdom of mindful consumption, it also highlighted the role of positive behavioural change and collective effort in environmental conservation.
- **India's participation in various side-events during CoP30 at Belem, Brazil**  
The Ministry, in collaboration with various international agencies, including the COP 30 Presidency, organized and participated in the following High-Level Ministerial side-events on the margins of COP 30:
  1. Honble Minister Bhupender Yadav and UK Secretary of State for Energy Security and Net Zero Edward Miliband held a "Fireside Chat"
  2. Lead-IT: Industry Leaders' Roundtable at COP30 "From ambition to investments: scaling industry transition this decade"
  3. Ministerial Event on International Big Cat Alliance
  4. 11th Japan Joint Credit Mechanism (JCM) Partner Countries' Meeting
  5. International Solar Alliance (ISA)- Small Island Developing Countries (SIDS) Platform

#### Leadership Session

These side events provided opportunity to showcase India's climate actions; exchange perspectives and draw attention to key initiatives aimed at addressing climate change. During these events, India effectively demonstrated its strong commitment to climate action, highlighting a range of measures being undertaken at both the domestic and international levels.

Through these side events, the team India shared experiences, highlighted key our initiatives to deal with the climate change. The team effectively articulated and showcased India's commitment to climate action and various initiatives being taken at the international as well as domestic level.

- **Bilateral Meetings at COP 30:**  
During COP 30, HMEFCC held bilateral meetings with the EU, China, Germany, UK, Brazil, Nepal, Estonia, Cuba, Japan and a meeting with the UN Secretary General. Engagements were mainly focused on exchanging views and mobilizing convergence on COP agendas, however, issues of bilateral cooperation beyond the COP were also discussed. Notable discussions included; China proposed to establish a bilateral mechanism for Climate Cooperation, Japan proposed to expand existing JCM mechanism, Cuba requested for India's support on climate adaptation, India- Estonia agreed to explore cooperation in fields of technologies and renewable energy, Nepal requested for India's support on the mountain agenda within the UNFCCC. HMEFCC informed his Cuban, Japanese and Estonian counterparts that Indian Missions in these countries would take forward the discussions. Following this, messages to our Missions in Cuba, Japan and Estonia had already been sent by the UNES Division.
- **State Action Plan on Climate Change:**

State Action Plans on Climate Change (SAPCCs) serve as comprehensive strategic frameworks formulated by States and Union Territories to respond to climate-related challenges specific to their regional and administrative contexts. Developed in alignment with the National Action Plan on Climate Change (NAPCC), these plans form an essential component of India's broader climate mitigation and adaptation efforts. SAPCCs emphasize region-specific interventions aimed at lowering greenhouse gas emissions, strengthening climate resilience, and advancing sustainable development. In accordance with the Ministry's advisory, SAPCCs have been prepared by 34 States. During the year 2025, the Ministry reviewed and accorded approval to the revised SAPCCs of Maharashtra and Meghalaya and Union Territory, Chandigarh. So far, 16 States and UTs have revised their SAPCCs.

### India submitted its 4th Biennial Update Re-

### port to the United Nations Framework Convention on Climate Change

India's 4th Biennial Update Report (BUR-4) to the United Nations Framework Convention on Climate Change was submitted on December 30, 2024. The BUR-4 updates the Third National Communication (TNC) and includes the National Greenhouse Gas (GHG) inventory for 2020. The report also embodies information on India's national circumstances, mitigation actions, an analysis of the constraints, gaps, related finance, technology, and capacity-building needs.

### National Greenhouse Gas Inventory

In 2020, India's total GHG emissions, excluding Land Use Land-Use Change and Forestry (LULUCF), were 2,959 million tonnes of CO<sub>2</sub>e and net emissions of 2,437 million tonnes of CO<sub>2</sub>e with the inclusion of LULUCF. A summary of sector-wise and gas-wise national emissions and removals is presented in Table 1.

GHG sources and removals	CO <sub>2</sub> emission	CO <sub>2</sub> removal	CH <sub>4</sub>	N <sub>2</sub> O	HF C 23	CF 4	C <sub>2</sub> F 6	SF <sub>6</sub>	CO <sub>2</sub> equivalent
Energy	2181012	NO	1523	82	NO	NO	NO	NO	2238409
IPPU	201044	NO	232	8	2	1	0.27	0.004	238556
Agriculture	NO	NO	14290	342	NO	NO	NO	NO	405983
LULUCF	9369	-532357	41	1	NO	NO	NO	NO	-521933
Waste	NO	NO	2726	58	NO	NO	NO	NO	75641
Memo Items	802846	NO	0.09	0.11	NO	NO	NO	NO	802882
Total Emission	2382535	--	18771	489	2	1	0.27	0.004	2958589
Net Emission	2391904	532357	18811	490	2	1	0.27	0.004	2436656

Abbreviation: NO - Not Occurring.

The energy sector contributed the most to overall emissions (75.66 percent), followed by the agriculture (13.72 percent), Industrial Processes and Product Use (8.06 percent), and Waste (2.56 percent)

(Figure 1). In 2020, India's forest and tree cover, along with other land use, sequestered approximately 522 million tonnes of CO<sub>2</sub>, equivalent to reducing 22% of the country's total carbon dioxide

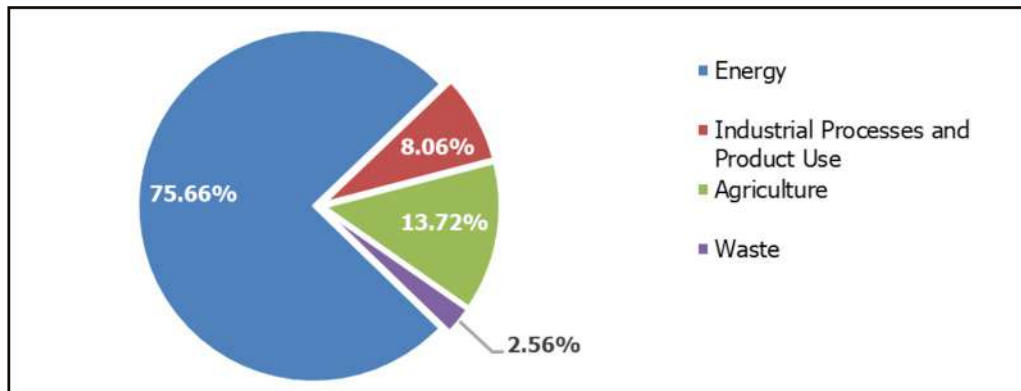


Figure 1: Distribution of GHG emissions (GgCO<sub>2</sub>e) by sector, 2020

Figure 2 shows the percentage share of the top 15 key emission categories in India for 2020, expressed as CO<sub>2</sub>e.

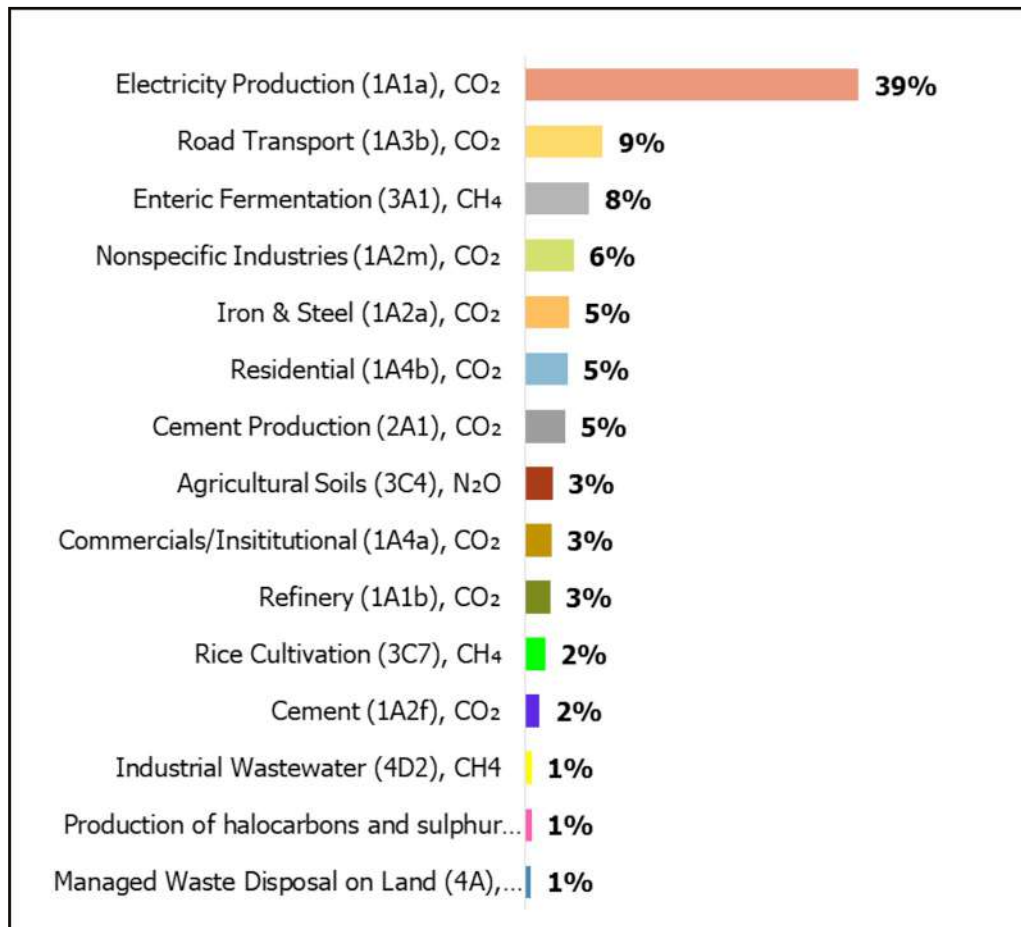


Figure 2: Percentage share of greenhouse gas emissions by category, 2020

emissions.

The CO<sub>2</sub>, CH<sub>4</sub>, and N<sub>2</sub>O emissions accounted for

80.53 per cent, 13.32 per cent, and 5.13 per cent, respectively, of the national GHG emissions excluding LULUCF (Figure 3). In the case of fluorini-

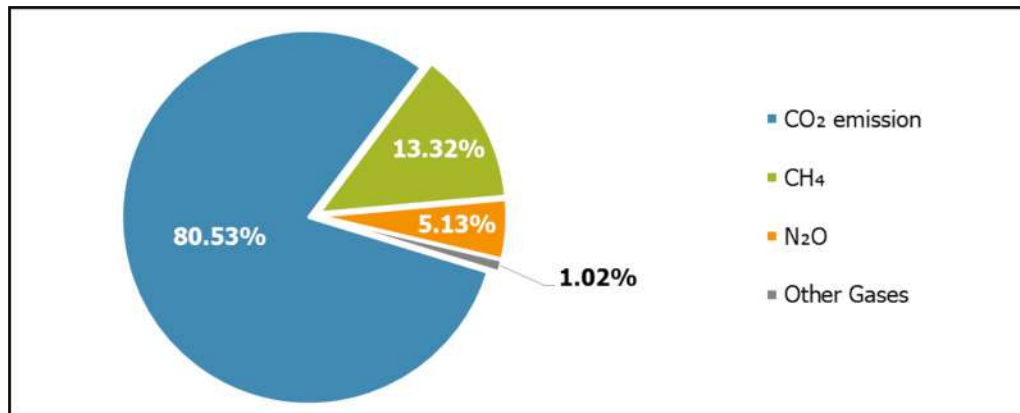


Figure 3: Gas-wise emission for the year 2020

nated gases, emissions of HFC, CF<sub>4</sub>, C<sub>2</sub>F<sub>6</sub>, and SF<sub>6</sub> were 0.73 per cent, 0.20 per cent, 0.09 per cent, and 0.003 per cent, respectively. Total national GHG emissions (including LULUCF) have decreased by 7.93 per cent with respect to 2019 (Figure 4).

Since 1994, India has undergone significant economic growth, resulting in an overall increase in greenhouse gas emissions. From 1994 to 2020, total CO<sub>2</sub>e emissions (excluding LULUCF) rose by 144 per cent. The waste sector experienced a growth of 226 per cent from 1994 to 2020, attrib-

uted to population growth and increased industrial activities. However, its contribution to overall emissions consistently hovers around 3 per cent, indicating a relatively low absolute contribution. The energy sector experienced a growth rate of 201 per cent from 1994 to 2020, primarily attributed to the ongoing rise in fossil fuel combustion. During the same period, the IPPU sector experienced a growth of 132 per cent, whereas the agriculture sector saw an increase of only 18 per cent (Figure 5). From 2000 to 2020, the LULUCF sector exhibited a 135 per cent increase in greenhouse gas removals.

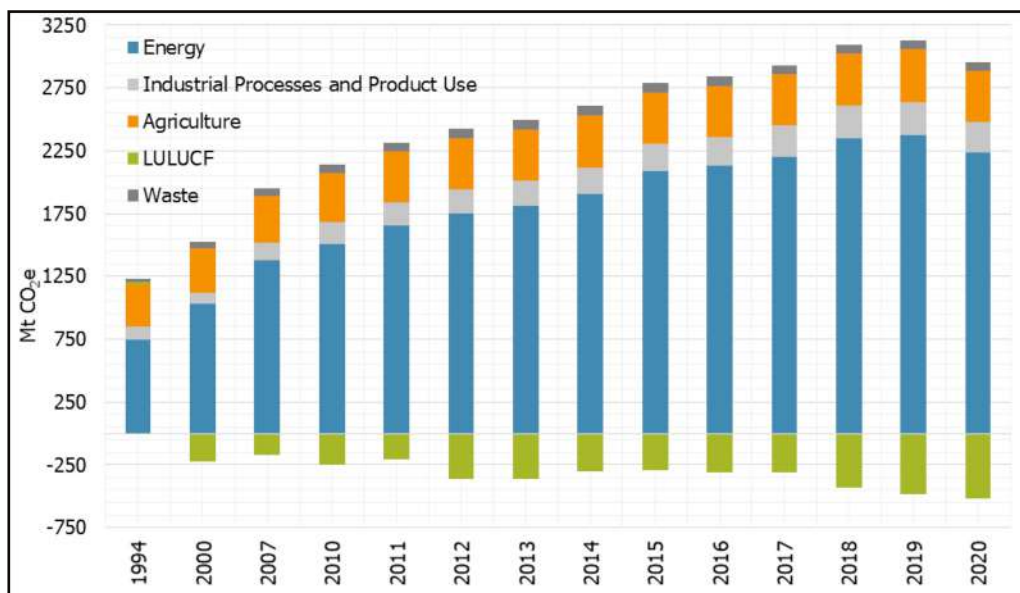


Figure 4: Sector-wise National GHG emission in Mt CO<sub>2</sub>e for 1994-2020.

Source: (MoEF, 2004); (MoEF, 2012); (MoEF, 2010); (MoEFCC, 2016); (MoEFCC, 2018); (MoEFCC, 2021); (MoEFCC, 2023).

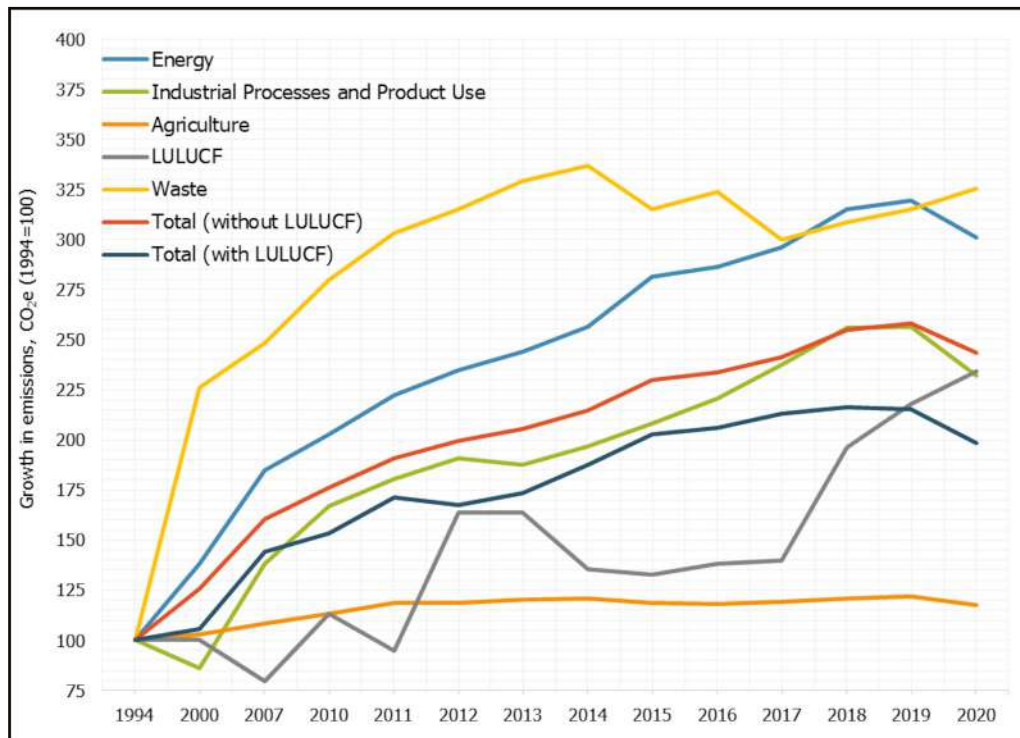


Figure 5: Growth in emissions of greenhouse gases, relative to 1994, illustrated by source categories, 1994-2020. Index 1994 = 100.

Source: (MoEF, 2004); (MoEF, 2012); (MoEF, 2010); (MoEFCC, 2016); (MoEFCC, 2018); (MoEFCC, 2021); (MoEFCC, 2023).

### Mitigation Actions: India's achievement of the NDC targets

Despite India's very low contribution to historical emissions and the current levels of global emissions, India has taken proactive actions to combat climate change in the context of sustainable development and its developmental aspirations and in light of its national circumstances, reflecting principles of equity and common but differentiated responsibilities and respective capabilities (CBDR-RC) as enshrined in the UNFCCC and its

Paris Agreement. The fundamental principle that informs India's climate policy is to pursue its development goals in line with national circumstances while staying within its fair share of the global carbon budget.

The Government of India has consistently undertaken initiatives to promote non-fossil-fuel-based energy sources. Owing to these, India stands 4th globally in renewable energy installed capacity, 4th in wind power capacity, and 3rd in solar power installed capacity. There has been a significant increase in non-fossil fuel-based sources in India,

primarily driven by a rapid increase in the installed capacity of solar photovoltaic (PV) based power supply and wind energy, alongside a steady rise in hydro and nuclear power capacity. As a proportion of total installed capacity in India, nonfossil fuel-based sources have consistently increased from ~30% in 2014 to 51.93% in December 2025 achieving India's NDC target five years ahead of the committed timeline of 2030.

Over the past decade, installed solar energy

capacity has surged from approximately 2.63 GW in March 2014 to around 135.80 GW in December 2025, an increase of over 51% in more than a decade. These achievements align with India's updated Nationally Determined Contributions (NDCs), which include, inter alia, achieving about 50 per cent cumulative installed electric power capacity from non-fossil fuel-based energy resources by 2030. Table 2 summarises India's progress on its NDC targets.

**Table 2: Progress of India's Nationally Determined Contributions (NDC)**

Intended NDC (Oct 2015)	Updated NDC (Aug 2022)	Achievements	Remarks
<b>NDC 1</b> - Reduction of the emissions intensity of GDP by <b>33% to 35%</b> from 2005 level by 2030	33-35% enhanced to <b>45%</b>	<b>36%</b> (between 2005-2020)	Original target achieved <b>11 years ahead</b> of schedule.  On track to achieve revised target
<b>NDC 2</b> - Achieve about <b>40%</b> cumulative electric power installed capacity from non-fossil fuel-based energy resources by 2030	40% enhanced to <b>50%</b>	<b>&gt;51.93%</b> (December, 2025)	The original target was achieved <b>9 years ahead</b> of schedule.  The revised target was also achieved <b>5 years ahead</b> of schedule.
<b>NDC 3</b> - To create an additional carbon sink of <b>2.5 to 3</b> billion tonnes of CO <sub>2</sub> equivalent through additional forest and tree cover by 2030	No change	<b>2.29</b> billion tonnes of CO <sub>2</sub> e by 2021	On track as per the Forest Survey of India estimates

### e **Multilateral Agreements Environmental (MEA)**

- The 1st Indo Russia Joint Working Group (JWG) Meeting on Climate Change and Low Carbon Development was convened on 10 September 2025 in the Ministry. The sides noted the importance of expanding efforts to combat climate change and achieving the goals of the UNFCCC and its Paris Agreement. During the meeting, both sides held comprehensive discussions on key areas of mutual interest. These included the implementation of climate policies, with a focus on emissions reduction strategies and enhancement of energy efficiency across sectors. The JWG also exchanged views on adaptation to climate change, emphasizing the need for resilient infrastructure, climate-responsive planning, and knowledge sharing to address climate risks. Cooperation on the development of carbon markets was also the part of the discussions. In this connection, both the sides explored opportunities for collaboration under Article 6.2 and Article 6.4 of the Paris Agreement. In addition, discussions were held on the harmonization of approaches for measuring the carbon footprint of products, aimed at improving transparency, comparability, and trust in low-carbon value chains. The meeting reaffirmed the shared commitment of both countries to work closely in advancing climate ambition, promoting low-carbon development pathways, and strengthening bilateral relations in support of global climate goals.
- A Memorandum of cooperation on the Joint

Credit Mechanism between the Government of the Republic of India and the Government of Japan was signed on 07.08.2025 under Article 6.2 of the Paris Agreement.

### f. **Progress / Achievements**

- India has continued to successfully decouple economic growth from greenhouse gas emissions, with the emission intensity of GDP declining by 36 percent between 2005 and 2020.
- Further, India achieved a major milestone under its updated Nationally Determined Contribution (2022) by attaining one of the goals i.e. 50 percent of its installed electricity generation capacity from non-fossil fuel sources in June 2025, five years ahead of the 2030 target.
- With respect to the NDC target on creation of additional carbon sinks, the latest assessment under the India State of Forest Report (ISFR) 2023 indicates that India's total forest and tree carbon stock has reached 30.43 billion tonnes of CO<sub>2</sub> equivalent. This reflects the creation of an additional carbon sink of 2.29 billion tonnes of CO<sub>2</sub> equivalent compared to the 2005 baseline, demonstrating substantial progress towards the NDC goal of creating 2.5–3.0 billion tonnes of additional carbon sink by 2030.

### g. **Grant-in-aid released to Institutions / organisations including NGOs**

The Division through NATCOM Cell; under the non-scheme establishment expenditure- Climate Change Action Programme, released the Grant-in-aid (General) to the following institutions in connection with ongoing National Carbonaceous Aerosols Programme (NCAP) Project.

S. No.	Name of the organisation	Purpose	Total amount Released	Status of third-Party Evaluation
1.	Indian Institute of Science Education and Research, Bhopal	Financial Assistance for implementing certain aspects of NCAP Project.	Rs. 3.97 lakh	Not applicable
2.	Indian Institute of Technology, Kanpur	Financial Assistance for implementing certain aspects of NCAP Project	Rs. 47.30 lakh	Not applicable
3.	Indian Institute of Technology, Kharagpur	Financial Assistance for implementing certain aspects of NCAP Project.	Rs. 24.45 lakh	Not applicable
4.	Indian Institute of Technology Delhi	Financial Assistance for implementing certain aspects of NACP Project.	Rs. 61.00 lakh	Not applicable
5.	National Physical Laboratory, Delhi	Financial Assistance for implementing certain aspects of NCAP Project.	Rs. 16.30 lakh	Not applicable
6.	Indian Institute of Technology, Bombay	Financial Assistance for implementing certain aspects of NCAP Project.	Rs. 33.60 lakh	Not applicable

## Green Climate Fund (GCF)

Green Climate Fund (GCF) is a climate finance mechanism, created in 2010 under the UNFCCC to support developing countries to shift towards low-emission and climate resilient development path by providing support in the form of grants, loans, guarantees, equity etc. The Government of India has been actively engaging with GCF. India's GCF portfolio can be accessed through link <https://www.greenclimate.fund/countries/india>

- Projects / programmes approved for India: The country portfolio has fifteen (15) projects / programmes approved so far. This amounts to a total funding of USD 1049 million. It is noteworthy to highlight that since 2021, India has secured approval for 12 additional projects/programmes [including four (04) in 2022, three (03) in 2024, and three (03) in 2025]. The three projects approved in 2025 fall under each of the themes- mitigation, adaptation and cross-cutting.
- Capacity building workshops under the GCF

Readiness and Preparatory Support programme: In order to strengthen the institutional capacity and enhance the readiness of the stakeholders to access financing from the multilateral fund, GCF Regional and Training of Trainers' (ToT) workshops were organised in Kolkata (in January 2025), Ranchi (in February 2025), Bengaluru (in March 2025), Chennai (in April 2025), Bhubaneswar (in July 2025) and Mumbai (in November 2025). These workshops were an opportunity to train the participants representing State / UT Governments, research, academia, civil society organisations (CSOs) about the access modalities of the fund.

The two-day workshop held in Kolkata in January 2025 focused on stakeholder consultation on "Financing India's Green Transition Plan and Adaptation Needs." The three technical sessions on Financing India's Green Transition Plan, Role of the Private Sector in Financing the Transition, and Financing Needs and Gaps for Adaptation Requirements highlighted an understanding of India's climate actions and the role of various financial

instruments.

The workshops held in Ranchi, Bengaluru, Chennai and Bhubaneswar spanning from February to July ensured the active engagement of stakeholders involved in climate policy, project implementation, and finance mobilisation. The States / UTs representation included Jharkhand, Karnataka, Bihar, Odisha, Mizoram, Chhattisgarh, Goa, West Bengal, Tamil Nadu, and Maharashtra. To translate theoretical knowledge into practical application, participants were engaged in hands-on exercises focused on the preparation of a Theory of Change (ToC) and its integration into a Funding Proposal. The workshop discussions also brought out several systemic challenges in accessing GCF financing like the prolonged approval cycle, resource-intensive development of a quality funding proposal and larger share of grant-based support.



Fig. 2(a) & (b): Regional & Training of Trainers' workshops in Ranchi (February 2025) and Bhubaneswar (July 2025)



Workshop held in Kolkata (January 2025) and in Bengaluru (March 2025)

## Adaptation Cell

### 1. Leadership Group for Industry Transition

The Leadership Group for Industry Transition (LeadIT), which was launched in September, 2019, has now evolved into its second phase. LeadIT 2.0 was launched in 2023 on the sidelines of COP28 in Dubai by Hon'ble Prime Ministers of India and Sweden.

LeadIT provides platform for multi-stakeholder dialogues, supports technology transfer and co-development in heavy industry sectors, and facilitates partnerships that support emerging and developing economies in accelerating their industry transition through coordinated multilateral technical and financial assistance.



**Second ITP Working Group Meeting, 07 May 2025, Stockholm, Sweden**

The membership of LeadIT has now grown to 48 members, which include 18 countries and 30 companies.

The India-Sweden Industry Transition Partnership (ITP), which kicked off in 2024, progressed through the activities led by the five Working Groups – steel, cement, innovation, carbon markets and finance – co-led by line Ministries from India and Sweden.



**Swedish industry delegation visit to Indian cement plant, 07 Mar 2025, Wadi, India**

The ITP Working Groups facilitated delegation visits and workshops with industry and government stakeholders from India to Sweden and vice versa, in Feb and Mar 2025, to visit key steel and cement

industries, understand innovative technologies and challenges in deployment, and identify potential collaboration opportunities. The second annual ITP Working Groups meeting was convened in Stockholm, Sweden, in May 2025 to take stock of the progress and plan towards COP30.

Parallel calls for proposals were announced by ITP Innovation Working Group leads in April and June 2025, inviting joint applications from Indo-Swedish steel and cement industry partners, for low carbon technology feasibility studies preparing for pilot projects. These calls for proposals enabled several industry matchmaking discussions between Indian and Swedish steel and cement companies and research institutes. The results of these calls were announced at a high-level event on the sidelines of COP30, and details of the selected projects were announced at the ITP project launch event in December 2025 in New Delhi.

In October 2025, LeadIT also announced a partnership between leading automotive companies from India and Sweden – Tata Motors and Volvo Group – to work together on developing an ecosystem for low carbon heavy duty commercial transport.



**LeadIT summit, COP30, 17 Nov 2025, Belem, Brazil**

At COP30 in Belem, the LeadIT Summit was held on 17 November 2025. The Summit was co-chaired by the Hon'ble Minister for Environment,

Forest and Climate Change, Shri Bhupender Yadav, and Swedish Minister for Climate and Environment, Ms. Romina Pourmokhtari.

The co-chairs announced the selection of seven projects from the ITP calls for proposals, bringing together 18 industry and research partners from Indian and Swedish steel and cement sectors. The Summit also saw the participation of governments, industries and key stakeholders to reflect on the status of the industry transition globally and in the LeadIT countries, and emphasised on the role of collaboration to bring together the relevant stakeholders to accelerate the transition.



**ITP Project Launch event, 08 Dec 2025, New Delhi, India**

On 8 December 2025, the ITP project launch event was held at the Embassy of Sweden in New Delhi, bringing together the ITP Working Groups along with the companies and research institutes leading the selected projects under the ITP. The seven projects are structured as technology feasibility studies to explore the feasibility of Swedish innovations in the Indian industry with an aim to develop an outline for pilot projects. The partners in the seven projects and their objectives are -

1. Tata Steel, IIT-ISM Dhanbad, JK Cement, Cemvision - Steel Slag Reborn: Dual Value generation through high metallic recovery and

sustainable supplementary cementitious material (SCM) production. Will create industrial symbiosis, where steel industry by-products become a resource for cement production

2. Tata Steel, IIT Hyderabad, GREEN14 - Microwave Plasma-Assisted CO<sub>2</sub> Conversion of Blast Furnace Off-Gas. Explores microwave plasma-assisted conversion of steel blast furnace off-gas CO<sub>2</sub> into carbon monoxide (CO), which can be reinjected as a reducing agent
3. IIT Bombay, Ambuja Cements, EcoTech Solutions - feasibility study for establishing an integrated carbon capture and utilization unit at a cement industry facility
4. Prism Johnson, Datta Meghe College of Engineering, Ecometrix - Feasibility Study for AI-Based Platform ACORN to Optimize Concrete Mix Designs in the RMC Industry for reduced Climate Impact. Explores the potential of using AI for concrete recipe optimization.
5. Jindal Steel and Power, Kanthal, Swerim, - Electric heating methods for future CO<sub>2</sub> neutral steel production. Assess concepts for electric gas heating, focusing on hydrogen and other process gases in ironmaking process, with the specific aim to reduce or eliminate CO<sub>2</sub> emissions.
6. IIT Bhubaneswar, Metsol, Höganas, Höganas India - Electrified Green Ironmaking Pilot Using Rotary Kiln Technology. Aims to conduct a feasibility study for a pilot plant based on a novel fossil-free ironmaking process using hydrogen and an electrically heated rotary kiln.
7. My Home Industries (Maha Cement), Captimise AB (Andritz Group) - Decarbonisation of cement production with carbon capture. Screen three carbon capture technologies—amine absorption, hot potassium carbonate, and membranes.

## **2. National Adaptation Fund for Climate Change**

The National Adaptation Fund for Climate Change (NAFCC) was established in 2015 to support adap-

tation activities in the States and Union Territories (UTs) of India that are vulnerable to the adverse effects of climate change. NAFCC is implemented in project mode and 30 projects have been sanctioned in 27 States and UTs.

The key achievements of the completed NAFCC Projects as per the Third Party Evaluation conducted in August 2025 are given below:

- i. **Community Outreach & Awareness:** Conducted extensive awareness programmes and community mobilisation activities on climate adaptation, water security, and sustainable livelihoods.
- ii. **Climate-Resilient Agriculture:** Promoted drought and saline-tolerant crops, integrated farming, and sustainable aquaculture to strengthen food security.
- iii. **Support for Vulnerable Communities:** Enhanced livelihoods of tribal, women, and marginalised groups through skill building, resource access, and value-added production.
- iv. **Knowledge & Data Systems:** Strengthened climate information access through GIS mapping, open data platforms, and integration with state climate plans.
- v. **Capacity Building for Adaptation:** Delivered targeted training with implementing agencies and NGOs, improving adaptive skills, market linkages, and community resilience.

### 3. COP30 Publication

In 2025, India released the flagship publication “One Earth, One Family, One Future: A Decade of Climate Action” on the sidelines of UNFCCC COP-30 in Belém, Brazil. The publication presents a comprehensive account of India’s climate journey over the past decade, highlighting the country’s people-centric, equity-based, and development-aligned approach to climate action. It

documents India’s progress across mitigation, adaptation, resilience-building, and sustainable lifestyles, while reaffirming the guiding philosophy of Vasudhaiva Kutumbakam—the World as one family. The publication also reflects India’s achievement of several Paris Agreement commitments ahead of schedule.

The publication further serves as an important global reference by systematically showcasing India’s adaptation strategies and resilience-building efforts, including climate-resilient agriculture, water security initiatives, disaster risk reduction, ecosystem restoration, and community-based actions. It highlights the role of national frameworks such as the National Action Plan on Climate Change (NAPCC), the ongoing development of the National Adaptation Plan (NAP), and large-scale initiatives such as Heat Action Plans, Mission LiFE, Jal Jeevan Mission, and ecosystem-based solutions. By consolidating policy frameworks, sectoral actions, state-level initiatives, and international engagement, the publication reinforces India’s position as a leading voice of the Global South and a credible contributor to global climate adaptation and resilience efforts.

## 8.2 Ozone Layer Protection

### 1. Ozone Layer Protection

The stratospheric ozone layer is present from 10 to 50 kms above the Earth’s surface. The stratospheric ozone layer acts as a shield and protects us from harmful ultraviolet-B (UV-B) radiation from the sun. Chlorofluorocarbons (CFCs), Hydrochlorofluorocarbons (HCFCs), Halon, Carbon Tetrachloride (CTC), Methyl Bromide, Bromofluoromethane (BFM) etc. are recognised as Ozone Depleting Substances (ODSs) that depletes the ozone layer. Depletion of Stratospheric Ozone

Layer has the potential to cause skin cancer, eye cataract, suppress body's immune system, decrease crop yield etc., which led to the adoption of the Vienna Convention for the Protection of the Ozone Layer in 1985 and the Montreal Protocol on Substances that Deplete the Ozone Layer in 1987. The Montreal Protocol is recognized as the most successful international environmental treaty enjoying universal ratification from all the 198 United Nations Member countries and has led to phase out of 99% of ODSs globally.

The MoEF&CC set up the Ozone Cell as a National Ozone Unit (NOU) to render necessary services for effective and timely implementation of the provisions of the Montreal Protocol and its ODSs phase-out program in India. The Ministry constituted an Empowered Steering Committee (ESC) under the Chairpersonship of the Secretary (EF&CC) to oversee the overall implementation of the provisions of the Montreal Protocol in the country.

In order to comply with the requirements of the Montreal Protocol, the Ministry has brought out comprehensive Ozone Depleting Substances (Regulation and Control) Rules, 2000 under the Environment (Protection) Act, 1986 for phasing out of various ODSs. The ODS Rules have been amended in 2001, 2003, 2004, 2005, 2007, 2014 and 2019 to implement ODS phase-out activities in the country aligned with the phase out schedule of Montreal Protocol.

India has played proactive role in the implementation of ozone depleting substances phase out activities in the country and adhered to all the phase-out schedules of the Montreal Protocol. India has been successfully implementing the phase-out program for ODSs in the country, wherein inter alia Chlorofluorocarbon (CFC), Carbon tetrachloride (CTC) and Halons have already been phased out for the controlled uses.

India is now phasing out Hydrochloro-fluorocarbons (HCFCs) as per the accelerated phase-out schedule of the Montreal Protocol i.e. 10% reduction as on 1st January, 2015, 35% reduction as on 1st January, 2020, 67.5% reduction as on 1st January, 2025 and complete phase-out of production and consumption of HCFCs will be by 2030 with a service tail of 2.5% annual average during the period 2030-2040.

## **2. Implementation of hydrochloro-fluorocarbons (HCFC) phase-out management plan (HPMP).**

### **HPMP Stage-I**

India successfully met 10% phase-out targets of HCFCs production and consumption for controlled application in 2015, as per the accelerated phase out schedule of the Montreal Protocol.

Through the HPMP Stage-I, a total of 341.77 ODP tonne of HCFCs have been phased out, in accordance with the agreement between the Government of India and the Executive Committee of the Multilateral Fund. The net direct emission reductions in terms of CO<sub>2</sub> eq. tonne is 3,071,260.5.

### **HPMP Stage-II**

India successfully met 35% phase-out targets of HCFCs production and consumption for controlled application in 2020, as per the accelerated phase out schedule of the Montreal Protocol.

In a significant first, amongst the Article 5 parties (developing countries) under the Montreal Protocol, India has been able to achieve the complete phase out of HCFC-141 b, one of the most potent chemicals involved in stratospheric ozone depletion, which was used in the foam manufacturing sector, as part of implementation of HPMP Stage II.

A separate notification S.O.No. 4724 (E) dated 31st December, 2019, amending the Ozone Depleting Substances (Regulation and Control) Rules, 2000, was published in the Gazette of India inter alia prohibiting the issuance of import license for HCFC-141b and its usage from 1st January, 2020.

Under implementation of HPMP Stage-II the following activities have been completed:

- Complete phase-out of HCFC-141b by the 158 Foam manufacturing participating enterprises.
- Complete phase-out of HCFC-22 by the 6 Air-Conditioning participating enterprises.
- Training of 17000 RAC service technicians on good servicing practices relating to installation and servicing, including safe handling of R-32 low GWP alternative during technology conversion in the air-conditioning manufacturing sector.

### HPMP Stage-III

The HPMP Stage III for India was approved in the 91st meeting of the Ex-Com of the MLF to phase out 10,678.87 MT (i.e. 579.99 ODP tonne) of HCFCs consumption from the starting point, contributing to India's compliance with the 2025 and 2030 control targets for HCFCs under the Montreal Protocol.

The HPMP Stage-III is the last of the HPMPs for India, for assisting the country in achieving compliance with the Montreal Protocol 2025 and 2030 control targets. In pursuance of Ozone Depleting Substances (Regulation and Control) Rules, as amended in 2014, manufacture of all new equipment using HCFCs was phased out on 31st December, 2024. Use of HCFCs in the Refrigeration and air conditioning sector for servicing activities would continue till 2040, as per the accelerated phaseout schedule of the Montreal Protocol.

A total of 48 enterprises in the refrigeration manufacturing sector and 16 enterprises in the air-conditioning manufacturing sector have been participating in HPMP Stage-III.

In addition, HPMP Stage-III addresses conversion of technology from HCFC-22 to non-ODS and low-GWP in the RAC Manufacturing sector, Servicing sector, capacity building, project activities, policy and regulations, enforcement training, etc.

As part of the servicing sector activities under the HPMP Stage-III, equipment support is being provided to 120 ITIs across the country, in collaboration with the Directorate General of Training (DGT), Ministry of Skill Development and Entrepreneurship, considering regional and geographical balance. The equipment being provided are: (i) Basic refrigeration and electrical cycle unit (Frost-free Refrigerator), (ii) Split A C Training Unit (compatible to Inverter technology) Capacity: 1.5 Ton, (iii) Commercial Refrigeration Training Unit, (iv) Industrial Refrigeration Unit for Rack Systems, and (v) Split AC Training Unit Metal Frame.

In line with the accelerated phase out schedule of the Montreal Protocol for HCFCs, in 2024, India achieved reduction of 50% of HCFCs in consumption sector against 35% phase-out reduction target.

### Enabling Activities under HPMPs

Ozone Cell, MoEF&CC, in association with the UN Environment (UNEP) have been implementing the enabling components (Capacity Building and Awareness creation) of HPMPs. The following activities have been undertaken as part of the enabling component under HPMPs.

- **Capacity Building of Enforcement Department/Agencies**

Activities relating to the capacity building of enforcement Departments are being imple-

mented in association with the National Academy of Customs Indirect Taxes and Narcotics (NACIN) for capacity building by imparting training of new Customs and Enforcement Officers in the field of import and export of ODSs, through a MoA. The following activities have been implemented:

- i. A Two-Day Workshop for Supervisory Officers to Combat Illegal Trade of HCFCs under HPMP-Stage-II was conducted during 20th to 21st January, 2025 at Coorg, Karnataka.
- **Studies on key issues relating to Montreal Protocol implementation:**  
Following studies have been undertaken during 2025-26:
  - i. Study report on Techno-economic feasibility Study of district cooling system in India. The study evaluates the potential for District Cooling Systems (DCS) across Indian cities supporting its adoption as a sustainable and energy-efficient cooling solution in building sector.
  - ii. Study report on Low-GWP alternative Technologies for Chillers in Large Air Conditioning Building.
  - iii. Study report on best Practices for Installation and Maintenance of Ammonia / Low-GWP Alternative Technology in Cold Chain Infrastructure to promote safe and efficient installation and maintenance of low-GWP technology systems within India's cold chain infrastructure.

- iv. Study report on Low-GWP alternative technologies in the Transport Refrigeration Sector.

- **Development and dissemination of knowledge products**

Quarterly e-newsletter for RAC service technicians on the importance of good servicing practices including handling of different types of refrigerants, related safety issues and updates on refrigerant transition under the Montreal Protocol are being published in association with M/s TERI. During the year 2025, 4th and 5th edition of the e-newsletter were published.

### 3. Ratification of the Kigali amendment to the Montreal protocol for phase down of hydrofluorocarbons (HFCs) by India.

The Union Cabinet in its meeting held on 18 August 2021 approved the Ratification of Kigali Amendment to the Montreal Protocol for phase-down of HFCs by India. India ratified the Kigali Amendment to the Montreal Protocol for phase-down of HFCs on 27 September 2021.

As per the agreed phase-down of HFCs under the Kigali Amendment, India will have to complete its phase down of the production and consumption of HFCs in 4 steps from 2032 onwards with reduction of 10% in 2032, 20% in 2037, 30% in 2042 and 85% in 2047 respectively. The list of HFCs to be phase-down under the Kigali Amendment are as follows:

Sr. No.	Substance	100-Year Global Warming Potential
1.	HFC-134	1100
2.	HFC-134a	1 430
3.	HFC-143	353
4.	HFC-245fa	1030
5.	HFC-365mfc	794
6.	HFC-227ea	3220
7.	HFC-236cb	1340
8.	HFC-236ea	1370
9.	HFC-236fa	9810
10.	HFC-245ca	693
11.	HFC-43-10mee	1640
12.	HFC-32	675
13.	HFC-125	3500
14.	HFC-143a	4470
15.	HFC-41	92
16.	HFC-152	53
17.	HFC-152a	124
18.	HFC-23	14800

In accordance with the Montreal Protocol provisions, the framework for licensing system for import and export of HFCs and reporting obligations has been put in place after the first national stakeholder consultation held on 20 January 2022. The DGFT, Ministry of Commerce and Industry, the nodal agency for licensing for import/export of HFCs is implementing the licensing system for HFCs, based on the recommendations of the Ozone Cell, MoEFCC. Data reporting for HFCs commenced from 2022 along with other ODS as per provisions of Article 7 of the Montreal Protocol.

#### 4. India cooling action plan (ICAP)

MoEFCC developed and launched the India Cooling Action Plan (ICAP) during March 2019. India is one of the first countries in the World to have a compre-

hensive cooling action plan. ICAP aims to provide an integrated vision towards cooling across sectors encompassing inter alia reducing cooling demand, refrigerant transition, enhancing energy efficiency and better technology options with a 20-year time horizon, i.e. 2037-38.

ICAP recommends synergies with ongoing government programmes and schemes to maximize socio-economic co-benefits. The Government of India has taken steps to operationalize the recommendations given in ICAP after mapping of the recommendations for each thematic area, with the on-going government programmes/schemes and list out actions to be undertaken for achieving the said goals including identifying the required policy and regulatory interventions. Further, the following thematic groups during its meetings have identified a list of action points for operationalizing the recommendations of

the ICAP, which have been finalized in the meeting of Steering Committee and are under implementation by the concerned nodal Ministries/Departments/agencies:

- i. **Space cooling in buildings:** Space cooling covers both passive and active cooling strategies, optimization of cooling loads, encompassing natural and mechanical ventilation in building design, thermal comfort standards specifying pre-setting of temperatures for air-conditioning equipment in commercial built spaces and promoting use of energy efficient refrigerant based appliances including not in-kind technologies.
- ii. **Cold Chain:** Cold Chain sector comprising cold storages or refrigerated warehouses, pack houses, reefer transport and ripening chambers is poised for a significant growth in the coming years. The development of uninterrupted cold chain infrastructure will be a major driver in supporting the Government's priority areas of reducing food loss, ensuring food security and doubling farmers income.
- iii. **Domestic Manufacturing and Production Sector – Alternative Refrigerants and technologies:** Indian fluorocarbon industry has improved their technological capability in indigenous development of production processes including new generation low-GWP refrigerants such as HFOs and blends of HFOs and HFCs. This industry has shown results and is expected to continue to strive for self-sufficiency in indigenous refrigerant development and production of low/zero GWP alternative refrigerants.
- iv. **Research and Development:** The development of a robust R&D ecosystem in India will involve further development of scientific manpower in the area; requisite academic and R&D institutional capacities; support for R&D activities on various facets of cooling including cooling equipment, passive building design in-

terventions, not-in-kind technologies and new emerging technologies.

- v. **Servicing Sector:** Servicing sector is directly related to the consumption of refrigerants and optimum and efficient performance of in-use air conditioning equipment. Training and certification of RAC service technicians have potential to provide significant environment and livelihood benefits. These could be achieved through appropriate skill development of service technicians along with creating a market demand for skilled technician, which shall be a key driver.
- vi. **Transport Sector:** Improvements in system efficiency, transitioning to low-GWP environmentally friendly refrigerants and leakage free technologies, greater push for public transport infrastructure along with skilled servicing workforce and operational behavioural change are key to promoting sustainable cooling in transport. These aspects have been addressed as recommendations in the ICAP under the Transport air-conditioning thematic area.

The ICAP has been recognized as an important policy initiative, which has the potential to provide socio-economic and environmental benefits related to reduced refrigerant use, climate change mitigation and Sustainable Development Goals.

A meeting to review the implementation of the finalized action points relating to recommendation of the India Cooling Action Plan (ICAP) was held under the Chairmanship of Joint Secretary, MoEF&CC on 29th October 2025.

## 5. Awareness creation and consultation activities / meetings.

The following activities have been undertaken for awareness creation to ensure that the industries and public at large are aware about the ill effects of ozone depletion, and undertake necessary ODS phase-out activities and support the policies to

protect the ozone layer:

i. **World Ozone Day 2025:**

(a) The MoEF&CC organized the World Ozone Day 2025 function in Delhi. The theme for this year World Ozone day was “From science to global action”. The event was graced by Secretary (MoEFCC). Hon’ble Minister for Environment, Forest and Climate Change addressed the event through pre-recorded message.

(b) The World Ozone Day 2025 event was attended by School Children (around 250 school students), Line Ministries/Departments, and Industries associated with Montreal Protocol implementation, Service technicians of Refrigeration and Air-conditioning (RAC), Partners associated with Montreal Protocol implementation, think tanks, and Refrigerant gas Manufacturers, RAC and foam manufacturing enterprises, implementing agency namely UNDP, UNEP and GIZ, etc.

(c) Major activities undertaken during the World Ozone Day 2025 are:

- **School Competition:** To create awareness among the students to protect the Ozone Layer, online National level competitions in the category of Poster making and Slogan writing were organized for school children across the country, in collaboration with National Museum of Natural History (NMNH), Ministry of Environment, Forest and Climate Change. 6,322 entries were received for the poster competition and 2,428 entries for the slogan category respectively through an exclusive web portal developed for the purpose.
- **Refrigeration and Airconditioning (RAC) Training Equipment provided to Industrial Training Institutes (ITIs):** The announcement made during the event regarding Refrigeration and Airconditioning (RAC) Training Equipment provided to In-

dustrial Training Institutes (ITIs). The MoEFCC, Government of India, in close cooperation with the Directorate General of Training (DGT), Ministry of Skill Development and Entrepreneurship (MSDE), is providing Refrigeration and Air conditioning (RAC) Training equipment to 120 Industrial Training Institutes (ITIs) across the country, considering the institutes having RAC trade and geographical balance covering all the States/Union Territories.

- The training equipment will enable the ITIs to train RAC trade students and prepare them for installation and maintenance of the equipment using best practices. This includes safe handling of low global warming potential (GWP) refrigerants, that have issues relating to flammability, toxicity and safety, and enhancing their skills and competencies.
- **Release of Awareness Material:**
  - **Winning Poster:** Secretary (MoEFCC) released the first prize winning entry in poster competition during the World Ozone Day function.



- **27th edition of “The Montreal Protocol: India’s Success Story”:** The 27th edition of “The Montreal Protocol: India’s Success Story” highlights India’s achievements in the Montreal Protocol

Implementation in phasing out of Ozone Depleting Substances until date.

- **Study on Techno Economic Feasibility of District Cooling System (DCS) in India.** The study assesses the techno economic feasibility of adoption of DCS in different climatic zones of the country, vis-à-vis conventional cooling systems.



- **Study on Low Global Warming Potential (GWP) alternative technologies for chillers in large air conditioning buildings.** The study assesses the use of chillers with low GWP technologies in large buildings for meeting the cooling requirements in a sustainable way.

- **Study on Low GWP Technologies in the Transport Refrigeration Sector.** The study assesses the feasibility of adoption of low GWP technologies in the transport refrigeration and proposes measures for promoting their adoption.



Short video film released on 'Refrigeration and Air conditioning (RAC) Training Equipment Support to Industrial Training Institutes (ITIs).

ii. **Initiatives taken for Indigenous capacity development including research on low global warming (GWP) chemicals to be used as alternatives to HFCs:**

In order to promote indigenous manufacturing of low global warming potential chemicals and development of a robust R&D ecosystem the MoEFCC has collaborated with 8 Indian Institutes of Technology (Roorkee, Hyderabad, Kanpur, Patna, Banaras, Madras and Tirupati) to promote research and development of low global warming potential chemicals, including blends thereof, to be used as alternatives to substances controlled under the Montreal Protocol in line with industry requirements through engagement of research scholars.

The 2nd meeting of the committee constituted “for overseeing the activities including the progress of research and development (R&D) of low global warming potential (GWP) chemicals including blends thereof to be used as alternatives for substances controlled under the Montreal Protocol” was held on 27th February 2025 under the chairpersonship of Joint Secretary, Ozone Cell (EF&CC).

- iii. The 9th meeting of the meeting of the Project Steering Committee (PSC) for Montreal Protocol Projects implemented through UNDP as Implementing Agency, held on 4th February, 2025 under the Co-Chairpersonship of Joint Secretary, MoEF&CC and Deputy Resident Representative, UNDP India office.
- iv. Three RAC technicians trainings at Delhi Metro Rail Corporation Ltd. (DMRC) on the topic of “Good Service Practices and installation of Room Air-conditioners with HCFC-22 and Flammable Refrigerants” was conducted by GIZ from 17th-22nd February 2025 under the institutional strengthening activities of HPMP Stage II in India.
- v. Meeting of Production Quota was held on 10th

March, 2025 under the Chairmanship of Joint Secretary, Ozone Cell, MoEF&CC for distribution of production quota of HCFC 22 for non-feedstock applications for the Calendar Year 2025.

- vi. The Project Implementation Committee (PIC) for Implementation of the Servicing Components of Hydrochlorofluorocarbons Phase Out Management Plan (HPMP) Stage II & III, being implemented by GIZ, was held on 18th March, 2025 under the Chairmanship of Joint Secretary, MoEF&CC.
- vii. The stakeholders consultation workshop for Refrigeration & Air conditioning (RAC) Servicing Sector under Hydrochloro-fluorocarbon (HCFC) Phase out Management Plan (HPMP) Stage II was organized by GIZ Proklima India on 6th-7th May 2025 for onboarding of training providers of HPMP Stage III servicing sector and setting the scene for RAC training activities under HPMP Stage III in India.
- viii. The first meeting of the Advisory Committee constituted to review the progress of implementation of hydrofluorocarbons (HFC) demonstration and R & D projects was held on 06th August 2025 under the Chairmanship of Joint Secretary, MoEF&CC.
- ix. A meeting with representatives of Directorate General of Foreign Trade (DGFT), Directorate General of Commercial Intelligence and Statistics (DGCI&S), Customs and Ministry of Agriculture and Farmers welfare held on 1st September, 2025 under the Chairmanship of Joint Secretary, MoEF&CC to resolve the issues related to import and export data for the year 2024 and review the status of pending Action taken report on the decision of the last Standing Committee on Monitoring.
- x. Meeting of the Standing Committee on Monitoring was held on 11th September, 2025 under the Chairpersonship of Chairman, CPCB, in which the Article-7 and Country Program Progress Report (CPPR) data for 2024 were

- recommended for approval.
- xi. 16 faculties from 12 ITIs and NSTIs across India participated in the Training of Trainers (ToT) under HPMP, on Refrigeration and Air Conditioning (RAC) concepts pertaining to natural refrigerants and good service practices conducted from 15th – 26th September 2025 at BFS, Maintal, Germany.
  - xii. Three Trainings of Trainers (TOTs) was conducted by GIZ in August (18th - 22nd), September (8th - 12th) and October (27th-31st) 2025 for the RAC faculty trainers of the eight training providers empanelled with GIZ Proklima India for HPMP Stage III India.
  - xiii. Three meetings of the Working Group of the Standing Committee on Monitoring were held on 17.04.2025, 11.08.2025 and 07.11.2025 to discuss applications related to use/ manufacture of ODSs for feedstock uses, inter alia including qualifying process as feedstock use.
  - xiv. Ozone Cell, MoEF&CC in association with NIT Rourkela, MANIT Bhopal, PwC organized consultative Workshops on 4th September, 2025 to discuss the Studies on “Techno-Economic Feasibility of District Cooling Systems in India”, “Low-GWP alternative Technologies for Chillers in Large Air Conditioning Building”, “Best practices for installation and maintenance of Ammonia/Low-GWP alternatives technologies in the Cold Chain Infrastructure”, and “Low-GWP alternative Technologies in the Transport Refrigeration Sector”.
  - xv. Several consultative meetings were organized on a regular basis for interaction with industry, Government Departments etc., on issues relating to Montreal Protocol Implementation.
  - xvi. Review meetings with UNDP to discuss progress of MLF Projects implemented by UNDP were held from time to time.
  - xvii. Training, workshops were organized across the country for RAC servicing technicians by GIZ, as part of the activities in the RAC Servicing Sector.
  - xviii. Ozone Cell has made available awareness creation material to the public on its website. Instructional training videos for RAC service technicians in six different languages have been made.
  - xix. Separate QR codes have been generated for the instructional videos for wider dissemination through print medium.
  - xx. Pamphlets and information material is brought out at regular intervals and disseminated.
  - xxi. Ozone Cell has made Animation video of messages by Prakriti on Ozone Layer Protection and Documentary film on India’s Success Story on implementation of Montreal Protocol.
  - xxii. In a large exercise to provide contemporary update relevant material related to RAC servicing, the publications brought out by Ozone Cell were sent to Government run ITIs across the country which have RAC trade vocational training.
  - xxiii. CPCB, SPCB’s and other State Government Departments are being regularly updated/ informed about the ODS phase-out programme being implemented in the country.
  - xxiv. The Indian delegation actively participated in the following meetings of the Montreal Protocol:
    - 47th Meeting of the Open-Ended Working Group of the Parties to the Montreal Protocol scheduled held from 7-11 July, 2025.
    - 37th Meeting of the Parties to the Montreal Protocol on Substances that Deplete the Ozone Layer held from 3-7 November, 2025.
    - 96th Meeting of the Executive Committee (Ex-Com) of the Multilateral Fund (MLF) for Implementation of the Montreal Protocol scheduled to be held from 26-30 May, 2025.

## 6. Activities related to the Implementation of ODS Rules, 2000 and its Amendments and Montreal protocol

Activities related to the implementation of ODS Rules, 2000 and its amendments were carried out

inter alia including registration, regulation of export/import, issuance of production quota, monitoring and reporting.

The statutory reporting under the Montreal Protocol under Article 7 has been completed and the

Country Program Progress Report (CPPR) submitted to the Secretariat of the Multilateral Fund for the implementation of the Montreal Protocol. The compiled data submitted under Article 7 and Country Programme Progress Report (CPPR) for the year 2024 is as follows:

ODS	Production* (MT)	Export** (MT)	Import** (MT)	Production for Feedstock use within country (MT)	Consumption as per definition #
					ODS (MT)
CFC-11	0.000	0.000	0.000	0.000	0.000
CFC-12	0.000	0.000	0.000	0.000	0.000
CFC-13	0.000	0.000	0.000	0.000	0.000
CFC-113 <sup>1</sup>	0.000	0.000	0.000	0.000	0.000
Total	0.000	0.000	0.000	0.000	0.000
CTC <sup>1</sup>	41581.448	1500.685	0.000	40080.763 <sup>a</sup>	0.000
Total	41581.448	1500.685	0.000	40080.763	0.000
Halon -1211 <sup>2</sup>	0.000	2.200 (Recovered/Reclaimed)	19.512 (Recovered/Reclaimed)	0.000	0.000
Halon -1301 <sup>1&amp;2</sup>	300.060 (feedstock)	300.060 (feedstock)	14.416 (Recovered/Reclaimed)	0.000	0.000
Halon -2402 <sup>2</sup>	0.000	0.000	0.000	0.000	0.000
Total	300.060	302.260	33.928 <sup>2</sup>	0.000 <sup>b</sup>	0.000
Methyl Bromide <sup>3</sup>	3790.584	2087.820	3.706	0.000	1706.47
Total	3790.584	2087.820	3.706	0.000	1706.47
HCFC-22	84123.493	16501.178 <sup>c</sup>	0.000	59209.092 <sup>d</sup>	8413.223
HCFC-123	0.000	0.000	37.688	0.000	37.688
HCFC-142b <sup>1</sup>	0.000	240.660	5460.000	5219.34 <sup>e</sup> (Imported)	0.000
HCFC-141b	0.000	0.000	0.000	0.000	0.000
HCFC-133A <sup>1</sup>	0.000	0.000	0.000	0.000	0.000
HCFC-225 <sup>1</sup>	1006.443 <sup>f</sup>	690.490	15.600	15.600 (Imported)	0.000
Chloro Fluoro Propanes (mixtures of HCFC 241, 242, 243 and 244) <sup>1</sup>	2625.720	2625.720	0.000	0.000	0.000

ODS	Production* (MT)	Export** (MT)	Import** (MT)	Production for Feedstock use within country (MT)	Consumption as per definition #
					ODS (MT)
Total	87755.656	20058.048	5513.288	64444.032	8450.911
Bromofluoro-methane <sup>1</sup>	0.340471	0.340471 <sup>2</sup>	0.88	0.88 (Imported)	0.000
Total	0.340471	0.340471	0.88	0.88	0.000

Notes:-

1 For feedstock only

2 Recovered/Reclaimed halon

3 for Pre-shipment & Quarantine

a. Total production of CTC for feedstock is 41581.448 MT out of which 1500.685 MT exported for feedstock and 40080.763 MT is used within the country for feedstock

b. Total production of Halon-1301 for feedstock is 300.060 MT out of which 300.060 MT exported for feedstock, there was no use within the country for feedstock

c. Including 269.460MT exported for feedstock to Japan.

d. Total production of HCFC-22 for feedstock is 59478.552 MT out of which 269.460 MT exported and 59209.092 MT is used within the country for feedstock

e. Total import of HCFC-142b for feedstock is

5460 MT out of which 240.660 MT exported for feedstock and 5219.34 MT is used within the country for feedstock

f. Total production of HCFC-225 is 1006.443 MT, out of which 690.490 MT exported for feedstock during 2024, and balance quantity to be exported in subsequent year for feedstock only

g. 0.203134 MT export to Singapore+0.137337MT export to United Kingdom (for feedstock)

Sources :

\*Producers

\*\*Producer/Consumer/Directorate General of Commercial Intelligence and Statistics

# As per the definition under the Montreal Protocol Consumption for controlled use= Production (for controlled use)+ Import(for controlled use)-Export (for controlled use)

HFC	Production (MT)	Export (MT)	Import (MT)	Consumption (MT)
HFC-23	0	0	18.000	18.000
HFC-32	23583.220	4841.093	4678.462	23420.589
HFC-41	0	0	0	0
HFC-125	9177.708	2943.300	2006.231	8240.639
HFC-134a	13739.15	4301.421	5901.916	15339.645
HFC-227ea	0	3.083	266.983	263.900
HFC-152a	0	0	5186.489	5186.489
HFC-245fa	0	0	349.5	349.5
HFC-236fa	0	1.27	101.48	100.21
HFC-365MFC	0	0	0	0

HFC	Production (MT)	Export (MT)	Import (MT)	Consumption (MT)
HFC-43-10mee	0	0	3.948	3.948
R-404A* (HFC-125 = 44%, HFC-134a = 4%, HFC-143a = 52%)		348.793	2596.906	2248.113
R-407C* (HFC-32 = 23%, HFC-125 = 25%, HFC-134a = 52%)		384.448	82.56	505.852*
R-410A* (HFC-32 = 50%, HFC-125 = 50%)		6959.709	1089.02	4291.109*
R-438A* (HFC-32=8.5%, HFC-125= 45%, HFC-134a=44.2%, HC600=1.7%, HC-601a=0.6%)		0	120	279.70*
R-449A* (HFC-32=24.3%, HFC-125=24.7%, HFO-1234yf=25.3%, HFC-134a=25.7%)		0	7.042	7.042
R-449C* (HFC-32= 20%,HFC-125=20%,HFO-1234yf= 31%, HFC-134a=29%)		0	1.298	1.298
R-454B* (HFC-32=68.9%, HFO-1234yf=31.1%)		0	8.596	8.596
R-507A* (HFC-125 = 50%, HFC-143a = 50%)		0	14.49	14.49
R-508B*(HFC-23 = 46%, PFC-116 = 54%)		0	0.84	0.84
R-513A* (HFO-1234yf=56%, HFC-134a= 44%)		0	0.938	0.938
HFC-365mfc/HFC-227ea* (87%/13%)		38.4	0	0
<i>Total</i>	46500.078	19821.517	22434.699	60280.898

\*As per Article-7 and Country Programme Progress Report, no need to report the production of mixtures/blends. However, the consumption is calculated considering R-407C production= 807.740 MT, R-410A production= 10161.798 and R-438A production=159.70 MT during the year 2024.

## 8.3 United Nation Convention to Combat Desertification

### Desertification Cell

#### a. Introduction

The Desertification Cell plans, coordinates and collaborates activities for restoration of degraded land and for the achievement of Land Degradation Neutrality ((LDN) in India.

- The focal point addressing the issues pertaining to the United Nations Convention to Combat

Desertification (UNCCD), which was ratified by India on 17 December 1996.

- Co-ordination division for SDG 15.3 ( combat desertification, restore degraded land and soil, including land affected by desertification, drought and floods, and strive to achieve a land degradation neutral world by 2030) in the Ministry.
- Coordination Division for National State of Environment Report for information pertaining to land degradation status.

#### b. Important Activities

### i. Aravalli Restoration

The Ministry had announced its plan to revive the Aravallis, a major initiative to green the 5 km buffer area around the Aravalli hill range in the four states of Rajasthan, Gujarat, Haryana and parts of Delhi-NCR. The Detailed Action Plan (DAP) of the Aravalli Green Wall Initiative has been launched in June 2025 which shall be implemented through convergence with the identified line departments such as agriculture, watershed, etc. while being anchored in the State Forest Departments.

### ii. Desertification and Drought Day 2025

On the occasion of the World Day to Combat Desertification and Drought 2025, the Ministry of Environment, Forest and Climate Change (MoEFCC), Government of India, organized a one-day national workshop at the Indian Council of Forestry Research and Education – Arid Forest Research Institute (ICFRE-AFRI), Jodhpur. The theme of the event was “Strategies for Combating Desertification and Drought”, focusing on sustainable land management in arid and semi-arid ecosystems.

The event was graced by the Union Minister for Environment, Forest and Climate Change, Shri Bhupender Yadav, as Chief Guest in august presence of Union Minister for Tourism and Culture, Shri Gajendra Singh Shekhawat and Member of Parliament (Rajya Sabha), Shri Rajendra Gehlot. India's proactive measures to combat desertification and ecological restoration were highlighted. The importance of sustainable agricultural practices, community-driven initiatives, and the preservation of natural ecosystems were emphasized. Several new publications were launched at the event including:

- Information Booklet on Aravalli Districts
- Revised Mission Document of the Green In-

dia Mission

- Book on Sustainable Land Management (SLM)
- Launch of the National Afforestation Monitoring System (NAMS)
- Distribution of AFRI Shesham Clones to ten farmers by the Hon’ble Environment Minister

The workshop featured a series of technical sessions covering key themes in land restoration and desertification control. Discussions on Sustainable Land Management (SLM) highlighted MoEFCC and ICFRE institutes integrated, community-led restoration efforts. It also included presentations on Global and National case studies by development partners like UNDP, ADB, GIZ, KfW, AFD and World Bank. A dedicated session on the Aravalli Green Wall Project focused on inter-state collaboration to restore ecological balance in the Aravalli region. The final session addressed Land Degradation Neutrality (LDN) through multi stakeholder actions involving state governments, SAC, CAZRI, NGOs, and others. The event concluded with a wrap-up session affirming India’s commitment to science-based, participatory, and policy-driven desertification mitigation.

### iii. India at CRIC 23, UNCCD

An Indian delegation participated in CRIC-23 of the UNCCD (1–5 December 2025, Panama City), which served as the mid-term review of the UNCCD Strategic Framework (2018–2030) and a key milestone in the lead up to COP-17. Deliberations at CRIC-23 focused on progress and gaps in the implementation of Land Degradation Neutrality (LDN) targets, with emphasis on monitoring frameworks, indicators and reporting under PRAIS. Extensive discussions were held on drought resilience, including policy responses, early warning sys-

tems, financing mechanisms and the emerging global drought agenda. The session reviewed implementation aspects related to sand and dust storms, land tenure, gender-responsive approaches and capacity-building, highlighting challenges faced by developing countries. India actively participated in plenary sessions, contact groups and Asia-Pacific regional coordination meetings, and delivered interventions at both national and regional levels. India further engaged in thematic side events and technical sessions enabled exchange of experiences and good practices on land restoration, sustainable land management and integrated approaches. The outcomes of CRIC-23 provide important inputs for strengthening India's national implementation, refining reporting processes and shaping India's engagement and priorities for UNCCD COP-17.

#### iv. **Study Initiatives**

NAEB is implementing a pilot project “Enhanced Capacity building of Stakeholders and State Governments on Forest Landscape Restoration and Reporting Mechanism on Bonn Challenge” in consultation with IUCN is compiling the data for reporting the achievements under Bonn Challenge Commitments.

The project aims to develop and adapt best practices and monitoring protocols for the Indian States and build capacity within five pilot States (identified as Haryana, Madhya Pradesh, Maharashtra, Nagaland and Karnataka) on the same in the first phase of the project. This will be eventually rolled out across the country in all States in subsequent phases of the project.

# Chapter 9

## INTERNATIONAL COOPERATION



## 9.1. International Cooperation

### a. Introduction

The International Cooperation (IC) Division is the Ministry's nodal arm for multilateral and bilateral environmental cooperation. It coordinates India's position, steers engagement under the multilateral forums like BRICS, G20, UNEA (United Nations Environment Assembly), BIMSTEC, SCO (Sanghai Cooperation Organization), SACEP (South Asia Cooperative Environment Programme), etc and also coordinates ministerial and secretary-level dialogues and Joint Working Groups in the field of Environment. The Division administers Memorandum of Understanding (MoUs) /Declarations of Intent (DoIs) broad in nature, tracks compliance and follow-up actions, and processes statutory/voluntary contributions. It facilitates Externally Aided Projects, anchors the Global Environment Facility (GEF) portfolio (including the Small Grants Programme), and enables technical cooperation and knowledge exchange. Working with divisions and partner Ministries/Departments, the IC Division translates international commitments into actionable programmes aligned with national priorities such as LiFE, circular economy, biodiversity conservation, and climate action.

- a. **Multilateral:** The IC Division coordinates India's engagement with global and regional environmental forums, including BRICS, SCO (Sanghai Cooperation Organisation), G20, SACEP (South Asia Cooperative Environment Programme), GEF (Global Environment Facility), United Nations Environment Assembly etc. It prepares briefs, services delegations, and ensures follow-up on decisions, contributions and work programmes in alignment with national priorities.
- b. **Bilateral:** The IC Division serves as the nodal point for country-to-country environmental cooperation. It steers Ministerial / Secretary-level dialogues, services Joint Working Groups, and administers MoUs / DoIs / MoCs in the field of

environment—overseeing implementation, reviews and compliance through agreed work plans and follow-up actions. At present, 19 MoUs / Agreements with Austria, Bhutan, Brazil, Canada, Cyprus, Denmark, Egypt, France, Finland, Israel, Japan, Mauritius, Morocco, Netherlands, Russian Federation, Sweden, Switzerland, Turkmenistan and Vietnam are being administered by IC division.

- c. **Contribution to International Organizations:** The IC Division is the nodal unit for MoEFCC's assessed / voluntary contributions to international organisations and convention secretariats. Annual contributions to UNEP and SACEP are processed directly by the Division, while contributions to other bodies are coordinated with the concerned Programme Divisions under the contribution head of the IC Division's budget.

In FY 2025–26, the Division has so far approved disbursal for approximately ₹22.30 crore against an allocation of ₹24.50 crore to date, adhering to approved commitments, timelines, and existing financial rules.

### b. Important Multilateral Activities

- (i) **G-20:** South Africa assumed the G20 Presidency on December 1, 2024, and lead the Environment and Climate Sustainability Working Group (ECSWG) under the theme "Solidarity, Equality, Sustainability. There were six priorities under the South African G20 Presidency i.e. Biodiversity and Conservation; Land Degradation, Desertification and Drought; Chemicals and Waste Management; Climate Change; Oceans and Coastal Management; and Air Quality. First ECSWG meeting was held from 25 -28 March 2025 and Indian delegation attended the meeting virtually under the chair of Ms. Rajasree Ray, Economic Advisor.

Second G20 ECSWG meeting was held at

Kruger National Park, South Africa, from 14 – 18 July 2025 and an Indian delegation under the chairmanship of Mr. Raghu Prasad, Inspector General of Forests participated.

Third and final G20 ECSWG meeting took place from 13 – 15 October 2025 at Cape Town, South Africa. This was followed by the ECSWG Ministerial Meeting on 16 – 17 October 2025. An Indian Delegation led by Shri Bhupender Yadav, HMEFCC participated in the meetings. In Ministerial meeting, India called for co-developed, non-restrictive technology transfer and a G20 Knowledge & Solution Exchange Platform; underscored voluntary, flexible global standards with focus on women, youth and small farmers; and urged that decarbonisation of marine transport uphold equity and climate justice with clearly defined means of implementation for developing countries.

- (ii) **BRICS Environment:** Under Brazilian Presidency for the year 2025, CGCCSD (Contact Group on Climate Change and Sustainable Development) addressed climate-finance framework, climate technology cooperation, trade-climate synergies, and common principles for carbon accounting; whereas EWG (Environment Working Group) focused on Desertification, Land degradation and Drought (DLDD), plastic pollution, ecosystem restoration / valuation and synergies with climate change.

At the 11th EWG Ministerial, 3 April 2025 (preceded by Technical Meeting on 2 April 2025 and CGCCSD on 1 April 2025), Indian delegation led by Shri Amandeep Garg, Additional Secretary welcomed discussions on DLDD, plastics and restoration; opposed text linking plastics with climate change/biodiversity loss and proposals on production caps; reiterated UNEA-5/14 framework. India's alternative text, which foregrounds the circular economy and SDGs 12 & 14, was accepted. In-

dia cautioned against premature proposals for a BRICS trade-climate lab and a climate-finance framework.

CGCCSD Open-ended Plenary & 3rd High-Level Meeting were held from 27–28 May 2025 in Brasília. The Indian delegation was led by Shri Vir Vikram Yadav, Additional Secretary. Ministerial Declaration affirmed CBDR (Common but Differentiated Responsibility), called on developed countries for means of implementation, and stressed resilience, DRR and sustainable development.

- (iii) **Shanghai Cooperation Organisation (SCO)** — Environment Ministers' Meeting under China's Presidency, proposed 2025 as the "Year of Sustainable Development"; and called for cooperation for green, sustainable and low-emission development. In the 6th Meeting of SCO Environmental Ministers held on 3 July 2025, an Indian delegation led by Ms. Rajasree Ray, Economic Adviser virtually participated in the meeting. India underscored equity and CBDR, highlighted Mission LiFE renewable energy, RE expansion and emission-reduction achievements; called for global cooperation, climate justice and appropriate support for developing countries. "Initiative of SCO Member States on Strengthening Cooperation for Sustainable Development" and the Joint Statement were adopted.

- (iv) **South Asia Cooperative Environment Programme (SACEP)** — The 16th Governing Council (GC) of SACEP, held on 26 June 2024 in Thimphu, Bhutan, recognized the need to update the 1981 Articles of Association (AoA) to reflect contemporary regional priorities and national circumstances. Pursuant to this mandate, delegation from MoEFCC, India participated virtually in the AoA review workshop held on 2–5 September 2025, (hybrid/Bangkok). The work-

shop finalized the final draft AoA for circulation to Member States, in preparation for an adoption-ready text at the next GC.

(v) United Nations Environment Assembly (UNEA): The seventh session of the United Nations Environment Assembly (UNEA-7) was held from 8-12 December 2025 at the United Nations Environment Programme (UNEP) headquarters in Nairobi, Kenya. Its theme, “Advancing sustainable solutions for a resilient planet,” emphasizes collective action to address global environmental challenges like climate change, biodiversity loss, and pollution.

The IC Division coordinated for India’s resolution on Strengthening the global management of wildfires, with a focus on ecosystem-based fire management, technology cooperation, and restoration of fire-affected landscapes. The resolution was successfully adopted at UNEA-7 marking an important global outcome led by India on wildfire management.

### c. Important bilateral activities

IC Division conducted bilateral meetings with various countries to advance the cooperation on various aspects of environment including circular economy and climate action.

#### Sweden

On 17 January 2025, Shri Tanmay Kumar, Secretary (EFCC) met Mr. Daniel Westlén, State Secretary to the Minister for Climate & Environment, to review climate negotiations, collaboration under LeadIT, and progress in negotiations on the global plastics treaty.

#### Norway

On 13 February 2025, H.E. Ms. May-Elin Stener, Ambassador of Norway called on Shri Tanmay Ku-

mar, Secretary (EFCC) to discuss priority areas for deepening environment cooperation and linkages with the proposed Indo-Nordic Summit.

#### Netherlands

On 14 February 2025, Shri Tanmay Kumar, Secretary (EFCC) met the Ambassador of the Netherlands Ms Marisa Gerards to take stock of COP29 outcomes and explore next steps in the India–Netherlands strategic partnership on environment and climate.

#### European Union (EU)

On 28 February 2025, Hon’ble Minister, EFCC Shri Bhupender Yadav received EU Commissioners Ms. Jessika Roswall and Mr. Wopke Hoekstra. The discussions centered on cooperation under RECEIC (Resource Efficiency and Circular Economy Industry Coalition), the INC process on plastics, and EPR (Extended Producer Responsibility) implementation, reinforcing India–EU collaboration on circular economy and climate action.

#### Guyana

On 5 March 2025, Hon’ble Minister, EFCC Shri Bhupender Yadav paid a courtesy call on H.E. Brig. (Retd.) Mark Philips, Prime Minister of Guyana, to explore collaboration on RECEIC, Sustainable Forest Management and CDRI (Coalition for Disaster Resilient Infrastructure), with reference to COP29 outcomes.

#### Nepal

On 7 March 2025, Hon’ble Minister, EFCC Shri Bhupender Yadav met H.E. Mr. Ain Bahadur Shahi Thakuri, Minister of Forests & Environment, to discuss tiger conservation, the International Big Cat Alliance (IBCA), Mission LiFE, and broader biodiversity cooperation.

#### Germany

On 11 March 2025, Shri Tanmay Kumar, Secretary (EFCC) met H.E. Dr. Philipp Ackermann, Ambas-

sador of Germany and reviewed collaboration on Mission LiFE and preparations for the India–Germany Environment Forum (IGEF). On 01 October 2025, Hon’ble Minister, EFCC Shri Bhupender Yadav met Mr Jochen Flasbarth, Secretary of State BMUKN, to discuss various Indo German cooperation mechanisms such as Indo German Environment Form (IGEF), International Climate Initiative (IKI) and GIZ initiatives.

### Switzerland

On 8 May 2025, Hon’ble Minister, EFCC Shri Bhupender Yadav met H.E. Mrs. Maya Tisaffi, Ambassador of Switzerland. They discussed on advancing technical cooperation in climate change and environment, including collaboration in disaster risk reduction and related areas.

### Brazil

On 14 May 2025, Hon’ble MEFCC Shri Bhupender Yadav met Sh. Dinesh Bhatia, Ambassador-designate of India to Brazil, for forward-looking discussions on climate change, COP30, LeadIT, International Solar Alliance, RECEIC, and broader sustainable-development cooperation.

### Denmark

On 9 June 2025, Shri Tanmay Kumar, Secretary (EFCC) met H.E. Mr. Rasmus Abildgaard Kristensen, Ambassador of Denmark, to review priority areas under the bilateral environment agenda.

### Bhutan

On 27 June 2025, Shri Tanmay Kumar, Secretary (EFCC) met Sh. Sudhakar Dalela, Ambassador of India to Bhutan, to review ongoing India–Bhutan environment cooperation and identify areas for follow-up.

### Japan (JICA India)

On 22 July 2025, Shri Tanmay Kumar, Secretary (EFCC) received Mr. Takuro Takeuchi, Chief Rep-

resentative, JICA India, and Mr. Vineet S. Sarin, Chief of Development Operations, to enhance India–Japan cooperation, including collaboration in the forestry sector.

### d. Joint Working Groups (JWG) Meetings:

Meeting of Joint Working Groups (JWGs) were held with following countries to review work plans and advance priority themes:

#### Sweden

The 3rd India–Sweden JWG on Environment held on 17 January 2025 at Indira Paryavaran Bhawan, New Delhi, and reviewed cooperation on Mission LiFE, biodiversity, and forest fire management, alongside related areas identified by both sides for follow-up.

#### Norway

The 11th Indo–Norwegian JWG on Environment convened on 10 September 2025 to take up institutional cooperation and governance matters in the environmental domain, waste management and circular economy, climate change and carbon markets, and biodiversity, including updates to National Biodiversity Strategy and Action Plan (NBSAPs) under the CBD.

#### Switzerland

The 4th Indo–Swiss JWG on Environment was held on 22 September 2025. During the meeting, review and discussion were held on Switzerland’s technical cooperation in climate change and environment in India, recent developments in India’s climate policy priorities, and the Swiss International Cooperation Strategy 2025–28 with a view to deepen the cooperation between the two countries.

### e. Memorandum of Understanding (MoUs) / Declarations of Intent (DoIs)

**France:** India and France signed Declaration of Intent (DoI) on Environment and Climate Cooperation on 12 February 2025 in Paris and agreed to deepen collaboration across climate action, circular economy and waste management, pollution abatement (including plastics), biodiversity conservation, sustainable forestry, and resilience / Disaster Risk Reduction (DRR). The DoI provides an outcome-oriented framework for policy dialogue, technical exchanges and pilot demonstrations, to be operationalized through mutually agreed annual work plans and designated focal points on both sides.

**Japan:** Memorandum of Cooperation on Environment and Climate Change Cooperation was signed between India and Japan on 28 August 2025. The MoC establishes structured cooperation with Japan on circular economy and EPR, marine litter and waste management, air and water quality improvement, nature-based solutions, biodiversity and sustainable forest management, and climate mitigation/adaptation including technology cooperation and capacity building.

**Switzerland:** India and Switzerland renewed MoU on Technical Cooperation in Climate Change & Environment on 22 September 2025. The MoU provides a framework to cooperate on climate policy dialogue, adaptation and resilience, disaster risk reduction, just and resource-efficient transitions, and knowledge sharing aligned with national priorities. The renewal enables continuation of technical assistance, capacity building and joint studies, with implementation guided by a focused work plan and regular review through the established bilateral mechanisms.

**Special event** — Familiarization visit of European media to MoEFCC on 30th October 2025. A delegation comprising of media persons from 20 European countries visited MoEFCC for a familiarization interaction coordinated by MEA.

Shri Tanmay Kumar, Secretary, MoEFCC chaired the briefing and Shri Neelesh Shah, Joint Secretary, delivered Ministry's presentation, showcasing flagship initiatives and missions (including circular economy, LiFE, biodiversity and climate action), followed by a Q&A addressing the foreign media's queries. The engagement aimed at strengthened outreach, improved understanding of India's environmental priorities and reforms, and set the stage for continued information sharing through curated briefs and official resources.

## f. Externally Aided Projects (EAPs)

### (i) EPPR (Preliminary Project Report)

Project proposals seeking external assistance are examined and processed by the Department of Economic Affairs (DEA). The IC Division collates inputs from the concerned line divisions on proposals pertaining to Environment, Forest and Climate Change and conveys the Ministry's consolidated position—including comments / inputs and, where appropriate, no-objection—through DEA's EPPR portal ([eapdea.gov.in/PPR](http://eapdea.gov.in/PPR)).

Following PPRs were reviewed by the division:

- PPR 12145 -“Supporting Circular Economy models beyond recycling in Indian Textile Sector through Gender Transformative Approaches”
- PPR 12488 “Collaboration on Green-Tagging Framework for the Agriculture Sector”.
- PPR- 12311 “Climate Finance Innovations for Fostering Resilience in India (CFFR)”
- PPR 22571- “PM e-Bus Sewa Scheme”.
- PPR 11553 “Creating technological foundation for implementing non-fired bricks to reduce environmental footprint of India's brick industry”
- PPR 22597- “Conservation and Restoration of Catchment Areas of Barak River”
- PPR 22651- “Socio-economic impacts of climate change and energy transition—

GEMMES model for India”.

- PPR 22524- “Soil Matters – Innovations for soil health and agroecology”.

(ii) **GEF (The Global Environment Facility)**

The GEF, established in 1992 on the eve of the Rio Earth Summit, is a global partnership of 186 countries, UN agencies, multilateral banks, and civil society organisations working together to address major environmental challenges and promote the sustainable use of natural resources. The GEF is a financial mechanism for 5 major International Environmental Conventions: United Nations Convention on Biological Diversity (UNCBD), United Nations Convention to Combat Desertification (UNCCD), United Nations Framework Convention on Climate Change (UNFCCC), the Minamata Convention on Mercury, and the Stockholm Convention on Persistent Organic Pollutants (POPs).

India is a founding member of GEF, and India is both a donor and a recipient of GEF funds. India represents the GEF South Asia Constituency (including Bangladesh, Bhutan, Maldives, Nepal and Sri Lanka) in the GEF Council. Department of Economic Affairs is the designated GEF Political Focal Point responsible for issues related to GEF governance, including policies and decisions, as well as relations between member countries and the GEF Council and Assembly. MOEFCC is the designated GEF Operational Focal Point concerned with the operational aspects of GEF activities.

The GEF Empowered Committee, chaired by the Secretary (EF&CC), determines national priorities for programming, approves projects/activities, and monitors their progress.

Under the GEF-8 cycle (July 2022 to June 2026), India received US\$89.32 million under the STAR

Allocation. India has fully utilized the allocation of US\$89.32 million by endorsing 22 projects: 10 Projects under STAR, 03 under Enabling Activities, 03 under GBFF, and 06 under NON-STAR projects. The 69th GEF Council met in June 2025. The GEF-9 replenishment cycle (July 2026 – June 2030) is currently underway and is expected to be finalized by June 2026.

In addition, the IC Division is implementing the Seventh Phase of the Small Grants Programme (SGP) project, under which 61 projects have been awarded to NGOs/CSOs with the support of UNDP & TERI. The 6th National Project Steering Committee (NPSC) meeting of GEF SGP-OP7 was held on 25 July 2025,

at Anchor Hall, Sun-N-Sand Hotel, Mumbai. The meeting was chaired by Shri Naresh Pal Gangwar, Additional Secretary & Chairperson NPSC. The Committee reviewed OP7 progress, including achievements (59 community grants, 2 knowledge grants, 10 upscaling grants), discussed draft Country Programme Strategy (CPS) for OP8 and approved the Annual Work Plan for 2025–26.





JWG meeting between Norway and India dated 10 September 2025.



The MoU renewal was followed by the JWG between India and Switzerland in the area of the environment.



Familiarisation visit of the journalists from the 20 European countries to the MoEFCC. The meeting was led by

Secretary MoEFCC, Tanmay Kumar (special Event).



HM FCC at the G20 Environment Ministerial Meeting in Cape Town, South Africa, with environment ministers of Various countries (October 2025) (Multilateral).



6th National Project Steering Committee (NPSC) — GEF SGP-OP7 (25 July 2025, Anchor Hall, Sun-N-Sand Hotel, Mumbai) (GEF)

## 9.2. EXTERNALLY AIDED PROJECT

### a. Brief introduction, Objective and Functions

Brief Introduction: Externally Aided Projects Division of the Ministry administers the Forestry related Externally Aided Projects in coordination with the State Governments, donor agencies (Japan International Cooperation Agency(JICA), French Development Agency (AFD), German Agency for International Cooperation(GIZ), Kreditanstalt für Wiederaufbau(KFW), World Bank etc.) and other line ministries in the Government of India such as Ministry of Finance, Ministry of Home Affairs, Ministry of External Affairs, NITI Aayog, Ministry of Development of North Eastern Region, etc.

The broad objectives of these forestry projects are increasing forest cover, biodiversity conservation, rehabilitation of degraded forest areas, Soil & Moisture Conservation measures, Agro-forestry component, Capacity Building of Forest Officials and other stakeholders, creation of income & livelihood opportunities to fringe area forest village people, other measures for Sustainable Management of Forest and its resources and climate change impacts for sustainable livelihoods.

At present, there are 18 ongoing Externally Aided Projects in the Forestry sector in 13 States having outlay over 1000 Crore and time frame extending upto 2033. The detail of these projects is given in the table below:

S.No.	PROJECT NAME	PROJECT DURATION	BENEFICIARY STATES	DONER AGENCY
1.	Assam Project on Forest and Biodiversity Conservation (Phase- II)	2019-2025	Assam	AFD
2.	Rajasthan Forest and Biodiversity Development Project	2023-2031	Rajasthan	AFD
3.	Punjab Biodiversity & Natural Resource Conservation Project	2025-2033	Punjab	JICA
4.	Uttarakhand Forest Resource Management Project	2014-2026	Uttarakhand	JICA
5.	Project for Improvement of Himachal Pradesh Forest Ecosystems Management & Livelihoods Project	2018-2028	Himachal Pradesh	JICA
6.	Odisha Forestry Sector Development Project Phase-II	2017-2027	Odisha	JICA
7.	Nagaland Forest Management Project	2018-2028	Nagaland	JICA
8.	Sustainable Forest And Catchment Management in Tripura	2018-2028	Tripura	JICA
9.	Project for Community-Based Forest Management and Livelihoods Improvement in Meghalaya	2020-2030	Meghalaya	JICA

S.No.	PROJECT NAME	PROJECT DURATION	BENEFICIARY STATES	DONER AGENCY
10.	Tamil Nadu Biodiversity Conservation and Greening Project for Climate Change Response	2022-2030	Tamil Nadu	JICA
11.	Project for Ecosystem Restoration in Gujarat	2020-2028	Gujarat	JICA
12.	Project for Forest and Biodiversity Conservation for climate Change Response in West Bengal	2023-2031	West Bengal	JICA
13.	Project for Climate Change Response and Ecosystem Services Improvement Project in Rajasthan	2024-2033	Rajasthan	JICA
14.	Himachal Pradesh Forest Eco-System Climate Proofing Project	2016-2026	Himachal Pradesh	KFW
15.	Community –based Sustainable Forest Management for Water Resources Conservation in Manipur (COSFOM).....	2018-2026	Manipur	KFW
16.	Climate Resilience of Forest Landscape Ecosystems, Biodiversity and Adaptive Capacities of Forest Dependent Communities, Tripura	2020-2027	Tripura	KFW
17.	Forest and Biodiversity Management in the (Himalaya) Nagaland	2019-2027	Nagaland	KFW
18.	Protection of Vulnerable Catchment Areas in Meghalaya	2022-2029	Meghalaya	KFW

### b. Important activities undertaken

- Knowledge sharing workshop under “Indo Pacific Park Partnership” organized by Assam Forest & Biodiversity Conservation Phase II project at Guwahati on 22.05.2025 and Field visits the works done in Nameri tiger reserve and Manas Tiger reserve under the same project.
- Review of projects in Tri-partite review meetings and screening committee meetings organized by DEA from time to time.
- National Partnership Forum on scaling Forest Conservation with AI and Digital Public Infrastructure organized by JICA on 31.10.2025 at New Delhi.

- 14TH Project Director’s meeting organized by JICA for Forestry and Natural Resource Management sector on 07.11.2025 at New Delhi.
- Indo-French Biodiversity talks organized by AFD on 10.11.2025 at New Delhi.
- Reviewed the PPR and DPRs of Forestry related externally aided projects

### c. Progress / Innovations

Organized dissemination workshop on completion of externally aided project “Sustainable Management of Forest Ecosystem Services” on 10th July 2025 in collaboration with GIZ at New Delhi for the benefit of stakeholders.

**d. Important Cumulative achievements**

- a. Minutes of Discussion(MoD) was signed successfully with JICA for “Punjab Biodiversity and Natural Resource Conservation Project” on 15.01.2025.
- b. Conducted operation planning workshop for “Strengthening Gender Responsive Forest Eco-system Managements and Agroforestry” project on 11.05.2025 at Dehradun.
- c. Reviewed and recommended the DPR for the EAP project “ Punjab Biodiversity and Natural Resource management project” to be financed by JICA
- d. Loan agreement was signed for “ Punjab Biodiversity and Natural Resource management project” between Govt of Punjab and JICA on 27.03.2025.
- e. Screening committee approval of DEA for externally aided project on “Strengthening Gender Responsive Forest Eco-system Managements and Agroforestry” project implemented by GIZ India on behalf of Federal Republic of Germany(BMZ) in collaboration with MoEF&CC and state Govt. of HP,MP,UP and UK.
- f. Completed the targets fixed for Special campaign 5.0 successfully.

# Chapter 10

## RESEARCH



## 10.1 Research in Environment

### 1. Research in Environment Division

#### a. Introduction, objectives and functions:

Research in Environment (RE) Division of the Ministry is responsible for the Environmental Research & Development Programme (ERDP). ERDP is a component of the umbrella scheme “Environment Education, Awareness, Research and Skill Development” (EEARSD) of the Ministry.

Major objectives of the RE Division are as under:

- To build database of Research projects and their findings in identified problem areas for finding practical solutions to issues concerning environmental protection and management.
- To generate information and knowledge from outcome of R&D projects for developing policies, strategies, action plans, and integration of such outputs in Ministry’s on-going Schemes and Programmes and in better management and conservation of natural resources.

#### b. Activities undertaken:

- Organised 03 meetings of the Technical-cum-Financial Appraisal Committee (TFAC).
- Organised 02 meetings of the Steering Committee (SC).
- Conducted a 3rd Party Evaluation of ERDP for continuation of the Scheme beyond 31.03.2026.
- Prepared the EFC of the Scheme.
- Processed the cases of ongoing projects for release of funds

#### c. Progress / Innovations:

- Identified new critical areas / gaps in ERDP as per the growing environmental needs & challenges.

#### d. Important Cumulative Achievements:

- During the current calendar year, 03 TFAC and 02 SC meetings have been organised so far to appraise the research project proposals.

- 14 new research projects have been sanctioned under different thematic areas to various research Institutions/Universities.
- Conducted a 3rd Party Evaluation of ERDP for continuation of the Scheme beyond 31.03.2026 up to 31.03.2031.
- Prepared the draft EFC of the Scheme.

### 2. Environmental Research and Development Program (ERDP)

#### a. Introduction, objectives and functions of the Environmental Research and Development Program (ERDP):

- The ERDP, part of the revamped "Environment Education, Awareness, Research, and Skill Development" scheme (formerly "Decision Support System for Environmental Awareness, Policy, Planning, and Outcome Evaluation"), aims to promote environmental research in key areas identified by the Ministry. It involves reputed institutions, government-funded bodies, and professional organizations, supporting decision-making for policy and planning in the Ministry's initiatives.
- The ERDP is open to all institutions in the country with expertise in identified thematic areas to undertake specific projects on specific areas of concern and priority and / or urgency of the Ministry in meeting Ministry’s objectives of environmental protection and conservation of natural resources. Institutions availing such funding under the Scheme will be provided a grant for the project duration.
- ERDP supports the Ministry's policy and planning by addressing environmental issues, promoting conservation, building expertise in emerging areas, and generating data for decision-making and international negotiations. It funds basic and applied research and manages databases for projects in key thematic ar-

- as below:
- i. Biodiversity Conservation including Issues of Alien and invasive species and Human-wildlife Interface.
  - ii. Ecosystems Conservation & Management (Mountain, Forest, Coastal, Wetlands, Pastoral, etc.) and Evaluation of Ecosystem Services.
  - iii. Socio-economic issues of environment and Sustainable Development.
  - iv. Conservation and Management of Landscapes and Ecologically sensitive areas including issues of sustainable livelihoods.
  - v. Sustainable Management of Natural Resources.
  - vi. Climate Change: Vulnerability & Risk Assessment, Process, Mitigation and Adaptation.
  - vii. Pollution Prevention - Clean Technologies and Processes, Cleaner Production, 3Rs, Resource Efficiency, Waste Minimization and Management, etc.
  - viii. Use of remote sensing technology for inventorisation, assessment and monitoring of country's natural resources such as land, water, forests, wetlands, glaciers etc. and for environmental conservation and protection on areas given above.
  - ix. Taxonomy.
- b. Major objectives of the ERDP:
- Promotion of Research & Development in various facets of ecology and environment for the conservation and protection of environment and natural resources of the country. To plan, support and coordinate environmental research in public interest for enhancing the understanding of environment and ecology and devising strategies and solutions for environmental protection and management for achieving the overarching objectives of sustainable development.
- c. Progress/Achievements
- A total of 34 research projects have been funded under ERDP since the scheme was revamped in 2021
  - A total of 14 new research projects have been sanctioned in 2025 under ERDP

### 3. Grant-in-aid released to Institutions/organisations including NGOs

S.No	Name of Organisation	Purpose	Total amount Released	Status of third party evaluation
1.	Mepco Schlenk Engineering College, Sivakasi	NIR Light reflective Nano composite plastering mortar/coating towards climate change adaptation in buildings	₹6,33,470/-	Completed
2.	National Institute for Plant Biotechnology, New Delhi	Exploration, conservation and characterization of wild Brassica species for the development of genetic and genomic resources to uncover climate-resilient traits through integrated approaches	₹28,40,268/-	Completed
3.	Department of Zoology, University of Delhi	Integrated Ecological Profiling and Isolation of Thermozyms from High-Altitude Hot Springs in District Kinnaur, Himachal Pradesh, India: A Culturable and Unculturable Approach with SeqCode Taxonomy.	₹1,62,000/-	Completed

S.No	Name of Organisation	Purpose	Total amount Released	Status of third party evaluation
4.	Chaudhary Charan Singh University, Meerut	Novel dyes synthesized from pet waste and their applications in industry	₹16,30,224/-	Completed
5.	National Institute of Technology, Delhi	Feasibility assessment of bioelectricity generation and optimization of substrate in coupled constructed wetlands for wastewater treatment	₹40,49,296/-	Completed
6.	Wildlife Institute of India, Dehradun	An integrated approach for conservation of Takin ( <i>Budorcas taxicolor</i> ) in North East India: Linking species ecology, traditional ecological knowledge	₹ 10,40,480/-	Completed
7.	Vidyasagar College, Kolkata	All india coordinated project on <i>Zygentoma</i> ( <i>Thynsura</i> ). Apterygota: Insecta.	₹16,59,600/-	Completed
8.	Socio Cultural Development Centre, Hajipur	Technology Development for Conversion of Tender Coconut Waste to Biocoal as an Energy Rich and Smokeless Cooking Fuel for Rural Applications in Puri District of Odisha	₹ 9,60,510/-	Completed
9.	Mepco Schlenk Engineering College, Tamil Nadu	Enhancing the Fire Resistance and Mechanical Performance of Areca/Epoxy Composite for Automotive Applications	₹ 9,54,000/-	Completed
10.	Socio Cultural Development Centre, Odisha	“Technology Development for Conversion of Tender Coconut Waste to Biocoal as an Energy Rich and Smokeless Cooking Fuel for Rural Applications in Puri District of Odisha	₹30,45,600/-	Completed
11.	Asian Educational Institute, Patiala	"Hymenoptera: Apoidea, Part-I Meliponinae (Stingless bees), Bombinae (Bumble bees) and Xylocopinae (Carpenter bees) from North-East and North-Western Himalaya"	₹ 4,09,960/-	Completed

## 10.2 National Mission on Himalayan Studies (NMHS)

### 1. CS-I (Mountain) Division

The CS-I (Mountain) Division has been established in MoEF&CC to ensure better coordination on issues for conservation of mountain ecosystem and ensuring sustainable livelihood options for communities in the Indian Himalayan Region (IHR) with effective networking/collaboration with relevant organizations. The major activities under this Division are as follows:

- i. Coordination of activities (administrative/establishment matters) for Govind Ballabh Pant National Institute of Himalayan Environment (GBPNIHE) to achieve physical and financial targets.
- ii. Monitoring of physical and financial targets for successful implementation of the National Mission on Himalayan Studies (NMHS) along with organising consultations/review meetings under guidance of Scientific & Technical Advisory Group (STAG)/Steering Committee (SC).
- iii. Coordination with International Centre for Integrated Mountain Development (ICIMOD) for their activities in India along with support in preparation of ICIMOD's Strategy and Action Plans in consonance with MoEF&CC's mandate; organising consultations for monitoring their work in India.

### 2. National Mission on Himalayan Studies (NMHS)

#### a. Objectives:

To build a body of scientific and traditional knowledge through demand driven action research and technological innovations along with institutional strengthening & capacity building;

To strengthen technological innovations lead-

ing to sustainable management of natural resources of Himalaya for ensuring the ecological, water, livelihood security at the local, regional and national levels;

To create science-policy-practice connect through a network of policy makers and practitioners (individual and institutions) engaged in working solutions to problems in the thematic areas;

To demonstrate workable/implementable/repliable solutions to the problems in the priority thematic areas.

#### b. Activities:

- The 13th Steering Committee meeting (SC) was held on 29th January 2025, and the 14th SC meeting on 13th October 2025, under the Chairmanship of the Secretary, MoEF&CC, to review progress of NMHS and approve new projects.
- The 26th Scientific and Technical Advisory Group (STAG) meetings were conducted in a phase-wise manner on 23rd and 30th December 2024 and 13th January 2025. The 27th STAG meetings were held on 08th and 30th August 2025. These meetings were chaired by the Joint Secretary, MoEF&CC for assessment and recommendation of new projects, as well as for reviewing NMHS progress and activities.
- The 9th Monitoring & Evaluation (M&E) Workshop was organized on November 6-7, 2025. Under the guidance of the Joint Secretary, MoEF&CC, the invited Chair and eminent members, subject experts evaluated 31 NMHS-supported projects in two technical sessions.

#### c. Progress/Achievements:

- Developed a Mobile App "ArunKisan - A Digital Revolution in Arunachal Agriculture" for farmer advisory and agricultural data

- management in Arunachal Pradesh.
- Established a “Microplastic Analysis Laboratory” at CAEPHT-Sikkim, with SOP finalized and equipment procured in Sikkim.
  - Established Solid Waste Management (SWM) Micro- demonstration Units (13 Facilities) operational in Himachal Pradesh, including composters, shredders, bailing machines, MRFs.
  - Devised and demonstrated New Technologies for Plastic Waste Upcycling to Graphene, Microbial Waste Treatment, and Microbial Electrolysis Cells in Uttarakhand.
  - Developed Prototype of Disaster Early Warning System (WRF- based forecasting + DSS Dashboard) for Beas Basin.
  - Developed a Google Earth Engine (GEE) App for Climate Data Analysis.
  - Developed 200 LPD Hybrid Leachate Treatment Prototype, combining Chemical Precipitation + Electrocoagulation + Advanced Oxidation Process + Ozonation.
  - Copyrights granted: (1) Engineering Drawing of Hybrid Process to Treat Legacy MSW Leachate (L-158710/2024), and (2) Engineering Drawings of Mechanized Segregation System (Ref: 025CR2024).
  - Constructed as well as evaluated an “ Eco-friendly Muck-based Cold- mix Road Construction Sections” in Himachal Pradesh. Achieved 7–8 kN stability in the Tunnel-muck-based Cold-mix Road Sections, demonstrating suitability for Himalayan roads.
  - Established a functional “Molecular Laboratory” with optimized DNA extraction and PCR protocols, completing 100 pilot extractions and generating 50 DNA barcodes, along with full manpower recruitment and base-camp establishment.
  - Completed “Biodiversity Data Curation for 14 Taxonomic Groups” and generated district-wise Spatial Distribution Maps; Recorded
  - ~19,500+ species across fungi, pteridophytes, algae, mammals, birds, fishes, reptiles, insects, amphibians, molluscs, nematodes, and viruses.
  - Successfully conducted assessment of “IUCN Red List” of 20 selected Himalayan species, identifying 6 threatened species, and completed extensive field surveys in 9 Uttarakhand districts along with large-scale school-based biodiversity outreach (6,796 participants).
  - Overall, Knowledge Products under the Mission-NMHS include: Success Stories (28), Technical Reports (15), Policy Briefs (18),
  - Books/Chapters (48), Research Articles (567 with IF 1220.652),
  - Newsletters (11), Fliers (139), Manuals (23), Bulletins (17) among other key publications.
  - Updated an extensive Database of the IHR, inclusive of (i) 6407 Springs inventory online database; (ii) 14,683 Floral species and 31,705 Faunal species databases; (iii) 265 Geospatial databases; (iv) DNA Barcoding/ Molecular profiling database of 1415 threatened flora and 1595 faunal species; (v) 1,119 Agro-biodiversity Accession conserved, among others.

## Grant-in-aid released to Institutions /organizations including NGOs (As on 21.11.2025):

S.No.	Name of Organisation	Purpose	Total Amount Released	Status of third party evaluation
1	GBPNIHE	To fulfil the objectives of GBPNIHE	Rs.14.06 crores	NA
2	GBPNIHE (For Implementation of NMHS non-scheme)	To fulfil the objectives of NMHS	Rs.6.08 crores	NA



Fig.1. A three-day Himalayan Conclave was organized by the Institute on “Indian Himalayan Region–2047.



Fig.2. Establishment of the Grassland Monitoring site in Ladakh

### 10.3 G.B. Pant National Institute of Himalayan Environment (GBPNIHE)

#### a. Objective:

- i. To undertake in-depth research and development studies on environmental problems of the Indian Himalayan Region;
- ii. To identify and strengthen the local knowledge of the environment and contribute towards strengthening research of regional relevance; and
- iii. To evolve and demonstrate suitable technology packages and delivery systems for sustainable development of the region in harmony with local perceptions.

#### b. Activities:

- The 47th Governing Body Meeting of the Institute was conducted on 30th October 2025 in New Delhi under the chairmanship of the Secretary, MoEF&CC, Government of India.
- A three-day Himalayan Conclave on “Indian Himalayan Region–2047: Environmental Conservation with Sustainable Socio-Economic Growth” was organized from November 13 to 15, 2025, at NIHE headquarters Kosi-Katarmal, Almora, Uttarakhand. The conclave aimed to develop a strategic vision for the Indian Himalayan Region (IHR) by 2047 in alignment with India's "Viksit Bharat 2047" vision. The event was represented by more than 75 national/ international organizations (Fig.1).

- Four new In-house projects were initiated; these include (i) Investigating Land Dynamics and Water Security in the Indian Himalayan Region Following Multi-Observation Framework for Sustainable Solutions, (ii) Resilience Building in Climate-Sensitive Basins in the Indian Himalayan Region, (iii) Integrated Strategies for Conservation and Sustainable Utilization of Biodiversity in the Indian Himalayan Region, (iv) Fostering Socio-Ecological Security and Sustainable Bio-Economy in the IHR through Community-Driven Blockchain Governance Models.
  - Initiated a multi-location experiment on restoration of degraded land using Vetiver grass (*Chrysopogon zizanioides*) wherein adaptability & growth performance of Vetiver grass in Himalayan conditions is assessed and its allied uses, including springshed management, land stabilization, restoration of degraded land being tested in different environmental conditions.
  - A total of 14 campaigns (plantation drives) related to 'एक पेड़ माँ के नाम' were organized by the institute and participated by >500 participants.
- c. **Progress / Innovations:**
- Developed five climate-resilient village models in Himachal Pradesh, Uttarakhand, and Assam using socio-ecological and geospatial data.
  - Established a Seabuckthorn Processing Unit in Chamsen, Nubra, and a Technology Centre in Jahalma, Lahaul, empowering women-led cooperatives for sustainable rural livelihoods.
  - Database on aerosols and major ambient air pollutants for Kullu, Himachal Pradesh and Almora, Uttarakhand strengthened.
  - A Glacial and High-Altitude Lake inventory of Kargil, Ladakh has been prepared.
- Conserved Germplasm of RET species (Sanctuary of 5 spp. of *Beberis* and *Mahonia*, > 100 extremophile microbes in IHR).
- Developed ex-situ conservation site for threatened and high value plants in Ladakh, Himachal Pradesh, Uttarakhand, and Sikkim.
  - A long-term grassland ecological monitoring and rehabilitation site for degraded grassland has been established at Chibra village, in collaboration with Ladakh Autonomous Hill Development Council, Leh and villagers of Chibra (Fig.2).
  - A patent has been granted to the Institute for an invention entitled 'A system for hydroponic cultivation utilizing treated wastewater from fecal sludge treatment plants (FSTPS)' from the Patent Office, Government of India, vide Patent No. 572807 and Application No. 202511020347.
  - Reported two orchid species New to Science; (i) *Phalaenopsis quadridentata* from Arunachal Pradesh, and (ii) *Gastrodia indica* from Sikkim, and documented two new records *Pedicularis dhurensis* R.R. Mill and *Isodon atroruber* R.A. Clemen from Arunachal Pradesh, India.
  - Through the six Rural Technology Centres (RTCs) of the Institute located in five different Himalayan states, conducted over 750 training programs for more than 31,000 beneficiaries across the IHR, demonstrated over 30 low-cost technologies on bio-compost, integrated farming, hydroponic, mushroom, etc., developed 5+ pine needle-based products (e.g., paper, bio-briquettes, bio-pellets, etc.) to mitigate forest fires and generate livelihoods, and promoted over 10 small-scale natural resource-based enterprises.
  - The Intra & Inter Vertical Collaborations under NIRANTAR of MoEF&CC were strengthened. Under the Vertical-IV and other verticals, initiated 04 joint research projects and 04 projects submitted to TFC of NIRANTAR, and 03 are in the process of development with NCSCM and other Institutions of MoEF&CC. Also, organized joint field visits and training programme for IFS Officers.

d. **Achievements:**

- Geotagged 77 springs in Yachuli and Yazali, KeyiPanior district of Arunachal Pradesh. This geospatial documentation enhances the spatial understanding of spring distribution and supports future planning for water resource conservation.
- Developed a regional database of 1025 pteridophyte taxa in the Indian Himalayan Region, with the highest species diversity in Arunachal Pradesh (590 taxa) and lowest in Ladakh (91 taxa), representing 799 native, 99 threatened, 215 medicinal, and 12 endemic species, highlighting the critical need for targeted conservation policies to protect threatened and endemic pteridophyte species.
- Re-evaluated GLORIA site in western Himalaya, documenting a 6.3% rise in species richness, 13% vegetation cover increase, and thermophilization ( $D=0.035$ ) reflecting a compositional shift toward warm-adapted species on mountain summits.
- Analyzed long-term data from Kullu Valley (Himachal Pradesh) and Kosi (Uttarakhand), showing seasonal aerosol variability, radiative forcing ( $0.5-2.5 \text{ W/m}^2$ ), temperature rise ( $0.02-0.04^\circ\text{C/year}$ ), and elevated pollutants ( $\text{PM}_{10}$ :  $50-100 \mu\text{g/m}^3$ ,  $\text{PM}_{2.5}$ :  $20-50 \mu\text{g/m}^3$ ,  $\text{BC}$ :  $2-8 \mu\text{g/m}^3$ ), urging enhanced monitoring and emission controls.
- Reported two orchids species New to Science; (i) *Phalaenopsis quadridentata* from Arunachal Pradesh and (ii) *Gastrodia indica* from Sikkim, and documented two new records *Pedicularis dhurensis* R.R. Mill and *Isodon atroruber* R.A. Clemen from Arunachal Pradesh, India.
- Springshed management was implemented in Paiyong Gram Panchayat, Kalimpong, West Bengal, as part of an Ecosystem-based Adaptation (EbA) approach, targeting two springs—Takibong Dhara and Khawpta Dhara. The intervention was carried out in September

2025 with active community participation, during which 84 recharge trenches and 1 recharge pond were developed.

- The active segment of Dauki Fault was mapped in the Southern part of the Shillong Plateau. Strengthened different conservation models, including Orchid trail (152 sp.), Rhododendron trail (15 sp.), and Rhododendron Garden in Sikkim.
- Three sites for long-term monitoring of Carbon Budget and Eco-hydrological Dynamics of high altitude grasslands established in Ladakh, Uttarakhand, and Sikkim.

### International Centre for Integrated Mountain Development (ICIMOD)

ICIMOD is a regional inter-governmental and knowledge sharing centre on sustainable and resilient mountain development for improved and equitable livelihoods, supported by 8 member countries of Hindu Kush Himalaya - India, China, Nepal, Myanmar, Pakistan, Afghanistan, Bhutan and Bangladesh. MoEF&CC is the nodal Ministry for ICIMOD activities in India. The 56th meeting of Board of Governors (BoG) of ICIMOD was held during 22nd - 28th April, 2025 in Kunming, China with representation from all Regional Member Countries including India.

# Chapter 11

## ENVIRONMENTAL INFORMATION, EDUCATION AND AWARENESS



## 11.1 Environment Education, Awareness, Research and Skill Development (EEARSD)

### 1. Environment Education (EE) Division

#### a. Introduction, objectives and functions

The Environment Education Division implements the 'Environment Education Programme (EEP)' - one of the components of the Central Sector Scheme - 'Environment Education, Awareness, Research and Skill Development (EEARSD)'. Additionally, the Division acts a link between the various Divisions of this Ministry and the Eco-club network for facilitating organization of non-formal activities for children. The Division also acts as the Nodal Division in the Ministry for matters related to National Education Policy (NEP), 2020.

#### Environment Education Programme (EEP)

The Environment Education Programme aims to supplement the efforts of Ministry of Education in the formal education front, through varied pedagogical initiatives to impart non-formal environment education. The programme aims to supplement the knowledge that the children and young generation gain from classrooms with experience from nature and hands-on activities.

The objective of the programme is to sensitize children/ youth on issues related to environment and to motivate them to adopt sustainable lifestyle through varied pedagogical initiatives like workshops, projects, exhibitions, campaigns, competitions, nature camps, summer vacation programmes, etc.

Under EEP, Sustainable Lifestyle Workshops / Projects/ Exhibitions / Campaigns / Competitions / Nature Camps/ Summer Vacation Programmes, etc. are organized by the Implementing Agencies for children/ youth. These initiatives give target beneficiaries a platform for developing scientific

temper and critical thinking, display creativity in addition to strengthening of concepts and opportunity to experiment and experience sustainable solutions. Nature camps help children/ youth to understand and appreciate India's unique natural diversity, varied ecosystems, flora and fauna, as well as to understand the threats to their survival. Thematic campaigns/ competitions like quiz, debate, essay, painting, physical activities, community participation, etc., give children/ youth a platform for expressing their ideas and spreading their word to the public.

The Implementing Agencies (IAs) of this Programme could be either at Central or State level, such as

- Any agency or autonomous body/ institutes of Central or State Government / UT Administration having a mandate related to education/ environment and are nominated by the respective Central or State Government.
- Nehru Yuva Kendra Sangathan or any such body under Department of Youth Affairs, Kendriya Vidyalaya Sangathan, Navodaya Vidyalaya Samiti or other such body under Ministry of Education, National Museum of Natural History under this Ministry, Panchayati Raj institutions / Urban Local Bodies, etc.

#### b. Important activities undertaken

Workshop / training program were organized by various Implementing Agencies of EEP on topics like, Sustainable Lifestyle, Zero Waste Initiatives, SUP alternatives, Banana Fiber Weaving, Segregation of Dry and Wet waste, Eco-crafting, Hands on training on making Corn Husk Button Flower, Clean paper initiative, Eco-friendly Ganesha making activity, Seed Ball making activity, Cloth bag making activity, Millet Food Fest. etc. Exhibition on "Best out of Waste" and "Waste to Wealth" were also organized by many IAs during 2025-26. Eco-clubs across the country have also celebrated vari-

ous important environmental days by organizing rallies, painting/ slogan/ poster competitions, cleanliness drives, etc.

Instead of symbolic activities, the programme is now focusing more on activities, which provide hands-on training and experiential learning to students and youth. It enables students to move beyond theoretical knowledge and directly apply concepts of environmental conservation and sustainability in real-life situations.



Capacity building on Eco-crafting from bamboo and clay



Cleaning of water body during Wetland Day 2025



Hands-on-Workshop on Zero Waste Initiative



### c. Achievements

To enable effective management, monitoring, and dissemination of programme-related information, the Ministry of Environment, Forest and Climate Change (MoEF&CC) has developed the EEP Portal (<https://eepmoefcc.nic.in>) and an app titled "Prakriti CONNECT" for both android and iOS platforms, which helps IAs/Eco-clubs to report on-ground activities in real time. As of 21st January 2026, a total of 1,14,258 eco-clubs have been registered on the portal, with 21,43,146 students from school and college eco-clubs actively participating in 23,187 events organised under the programme.

Ecotopia Card game is developed under EEP, which is based on 7 themes of Mission LiFE. Through this game students learn about simple everyday actions that promote sustainability. The card game is uploaded on EEP portal.

In the run-up to the World Wetland Day 2025, the Implementing Agencies of EEP organised massive campaign to sensitize Eco-clubs students and youth on wetland conservation and management by screening of educational videos, registering stu-

dents on the Wetland Mitra platform for taking the Mitra Pledge. During the campaign, a total of 1,474 activities were conducted across 16 States, with the enthusiastic participation of approximately 1,43,456 students.

An Online Quiz Competition was also conducted in the run-up to World Wetland Day (WWD) 2025. The first phase (14th–25th January 2025) served as a learning-cum-assessment phase, with 21,588 students participating and recording 2,15,401 minutes of active learning. A total of 896 students who scored 90% or above were selected for the second and final phase. 10 students who completed the quiz within the time limit and scored 20 or above out of 25 were awarded e-certificates.

### 2. Grant-in-aid released to Institutions / organisations

The total budget allocated under EEP for Financial Year 2025-26 is Rs. 60 Crores (Budget Estimate) and Rs. 43.54 Crores (Revised Estimate). The grant-in-aid is released in tranches to Implementing agencies for the Financial Year 2025-26 till date (22.01.2026) is Rs. 40.16 Crores.

**Table: State-wise release of grant-in-aid under EEP during the last two Financial Years**

S. No.	State(s)	Name of the Implementing Agency (IA)	FY 2024-25	FY 2025-26 (as on 22-01- 2026)
1	Andhra Pradesh	Andhra Pradesh National Green Corps	3,05,96,000	2,77,20,000
2	Assam	Assam Science Technology and Environment Council	3,57,44,607	3,01,98,015
3	Chhattisgarh	Chhattisgarh Environment Conservation Board	81,00,000	6,40,000
4	Delhi	Department of Environment	-	30,95,500
5	Goa	Goa State Council for Science and Technology	32,82,234	55,05,174
6	Gujarat	Gujarat Ecological Education and Research Foundation	2,78,53,784	3,39,19,450

S. No.	State(s)	Name of the Implementing Agency (IA)	FY 2024-25	FY 2025-26 (as on 22-01-2026)
7	Himachal Pradesh	Himachal Pradesh Council for Science, Technology & Environment	1,83,60,019	1,27,42,707
8	Karnataka	Environmental Management & Policy Research Institute	13,91,814	65,79,856
9	Kerala	Kerala State Council for Science, Technology and Environment	77,46,607	1,42,26,254
10	Madhya Pradesh	Environmental Planning and Coordination Organization	2,24,65,342	2,78,72,236
11	Maharashtra	Social Forestry Department Maharashtra	-	2,91,95,000
12	Manipur	Manipur Pollution Control Board	45,50,000	-
13	Mizoram	Mizoram Pollution Control Board	1,06,35,859	1,28,55,637
14	Nagaland	Nagaland Pollution Control Board	2,03,34,250	1,61,87,532
15	Odisha	Centre for Environmental Studies	5,34,48,599	5,28,21,778
16	Punjab	Punjab State Council for Science and Technology	3,20,82,398	4,06,01,000
17	Rajasthan	Rajasthan State Bharat Scout Guide	2,30,26,415	9,00,773
18	Sikkim	Forest and Environment Department	1,39,40,000	1,28,70,000
19	Tamil Nadu	Environment Management Agency of Tamil Nadu	5,53,00,000	2,06,88,968
20	Telangana	Telangana State National Green Corps	86,28,777	3,59,93,442
21	Tripura	Tripura State Pollution Control Board	62,40,399	61,32,750
22	West Bengal	West Bengal Pollution Control Board	1,78,95,896	2,82,90,183
	<b>Total</b>		<b>40,16,23,000</b>	<b>41,90,36,255</b> (as on 22.01.2026)

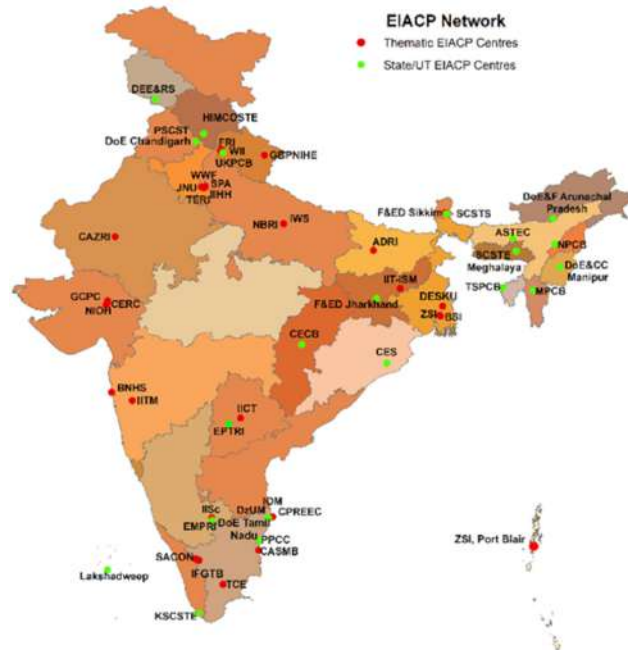
## EIACP Cell

Environmental Information, Awareness Capacity Building and Livelihood Programme (EIACP) under EEARSD Scheme

The Environmental Information System (ENVIS) Scheme, which was previously under

the umbrella scheme 'Decision Support System for Environmental Awareness, Policy, Planning and Outcome Evaluation' has been subsumed within the revamped scheme of Environment Education, Awareness, Research and Skill Development (EEARSD), which has been approved for F.Y 2021-22 to 2025-26 in June 2022. The revamped scheme has three

components and one of the components is Environmental Information, Awareness Capacity Building and Livelihood Programme (EIACP).



The EIACP uses a network of decentralized framework endowed with the agenda of integrating countrywide efforts towards environmental conservation and management. It encompasses the best functional aspects of the erstwhile ENVIS Scheme. It serves as a one-stop platform for dissemination of environmental information, informed policy formulation on various facets of environment and facilitation of alternate livelihoods through green skilling. It involves a recalibrated approach towards charting out a pathway for MoEF&CC to establish the quintessential social connect in order to enhance impact on the ground level.

The Programme Centres are classified as Hubs and Resource Partners. The Hubs are hosted by the Environment / Forest Department and other organizations under the State Governments/ UT Administrations. There are total 22 Hubs at present

under EIACP. Resource Partners (RPs) are hosted by environment related governmental and non-governmental organizations/Universities and institutes of professional excellence. There are total 32 Resource Partners at present under EIACP.

The aims and objectives of the EIACP are as under:

- To nurture green, sustainable and inclusive workforce by conducting skilling courses not only in traditional areas but also in new emerging areas like electric vehicles, hazardous waste/ Bio-medical waste etc., considering their future scope, requirements and prospects.
- Propagation of Mission LiFE (Lifestyle for Environment) activities, as conceptualized by the Ministry.
- To aid sustainable livelihoods of tribal population especially in NER by conducting capacity building, based on traditional knowledge and crafts.
- To facilitate transition to environmentally conscious futuristic citizens including awareness among public/communities on environment related issues.
- To develop national and international collaboration for knowledge exchange and skilling and facilitating attainment of the SDGs

## 1. Skilling and Training Programme under EIACP

### (a) Green Skill Development Programme (GSDP)

Green Skill Development Programme (GSDP) was launched in June 2017, at 10 locations, spread over 9 biogeographic regions of the country on a pilot basis to fill skill gaps in the green economy. It aims to skill youth in environment, forest and wildlife sectors for gainful wage and/or self-employment. Based on the success of the pilot, the programme was expanded to pan-India level in 2018-19. Currently 10 courses are aligned with the National Skill Qualification Framework NSQF and approved by NCVET and four more courses on

themes like Air and Water Pollution, Wildlife Management using Geospatial Techniques, Electrical testing for Environmental Criteria, Eco-friendly food testing are under various stages of processing. The NSQF level of the approved courses ranges from Level 2 to 6 and duration from 240hrs to 600hrs and are enumerated below:

1. Waste Optimisation Professional (Level 6 & 570 hrs)
2. Apiculturist (Wild bee)NTFP (Level 2 & 240 hrs)
3. Nature Conservator Cum Ecotourism (Level 4 & 420 hrs)
4. Solar Enterprise Assistant Manager (Level 5 & 510 hrs)
5. Micro Entrepreneur NTFP –Plant Origin: Bamboo & Coconut Shell (Level 4 & 420 hrs)
6. Soil Pollution Monitoring Specialist (Level 5 & 600 hrs)
7. Water Hyacinth (Value added Handicraft) Micro-Entrepreneur (Level 4 & 390 hrs)
8. EV Charging Installation Technician (Level 4 & 450 hrs)
9. Environmental Impact Assessor (Level 5 & 480 hrs)
10. Para-taxonomist and Biodiversity Register Documentation Expert (Level 4.5 & 480 hrs)



**(b) Capacity Building Programme (CBP)**

The Concept Note on Capacity Building Programmes has been prepared by the EIACP Cell in 2025 with inputs from EIACP Centres. Various Capacity Building Programmes spanning various areas under environment, forests, climate change, biodiversity conservation, and wildlife were designed to strengthen the knowledge, skills, and institutional capabilities of organizations, communities, and individuals to effectively address environmental challenges and adapt to emerging needs. In the current year, 67 batches of 40 different Capacity Building Programme have

been sanctioned to 22 EIACP centres.

One prominent example of the programme is organization of ten-day Capacity Building Programme (CBP) on Eco- friendly Livelihoods / Micro Entrepreneurship: “Eco- friendly Value-added Products from Sikki Grass” by Asian Development Research Institute (ADRI) EIACP RP at Patna . The programme promoted traditional and eco-friendly crafts such as Sikki art among local women participants thus, enabling them to get sustainable livelihood opportunities. Some of the Programmes completed as on 24.11.2025 are tabulated below:

Sl.No.	EIACP Centre	Nsme of Capacity Building Programme	Start date	End Date	Location
1	IIHH, Delhi	Low-cost Biodegradable Sanitary Napkin Production	03-10-2025	08-10-2025	Jhajjar, Haryana
		Capacity Building Programme Temple Flower Waste Recycling for Incenses Stick and Cone Making	06-10-2025	10-10-2025	Alwar, Rajasthan
		Waste Management – Wealth Out of Waste / Craft making alternatives to Single Use Plastics (SUPs)	10-10-2025	11-10-2025	Delhi
2	ADRI, Patna, Bihar	Ecofriendly Livelihoods/ Micro Entrepreneurship: “Eco-friendly value-added products from Sikki Grass”	08-10-2025	17-10-2025	Patna (Bihar)
3	BSI, Kolkata, West Bengal	Handicraft and Utility products made from locally available scrap Raw-materials (Iron Metal Scrap)	29-10-2025	10-11-2025	Tulsidanga, Kuthirpara, Purba Bardhaman, West Bengal
4	Karnataka EIACP Hub	Terrace/Kitchen Gardening	10-11-2025	12-11-2025	EMPRI, Bengaluru
5	Puducherry EIACP Hub	Eco-Enterprise Skills for SHGs: Crafting Sustainable Products from Vetiver Roots	27-10-2025	14-11-2025	Puduvai Kalanjyam Iyarkai Vivasayigal Sangam Hall, Bahour, Puducherry
6	CPREEC, Chennai, Tamil Nadu	Nursery Raising (Budding, Layering and Pepper Cutting)	14-11-2025	20-11-2025	Uyilatti, Ooty Taluk, The Nilgiris, Tamil Nadu



## 2. Mission LiFE Activities

- As part of Mission LiFE, all EIACP Programme Centres (PC Hubs/RPs) created standees and banners to raise awareness about the ban on identified single-use plastic items. These materials were prominently displayed at

key locations within the subordinate and attached offices, bodies, and organizations of the Ministry of Environment, Forest & Climate Change (MoEF&CC). Nearly all EIACP Centres participated in this initiative.

- In addition to this, the Centres actively engaged in various other environmental awareness activities, including promoting water and energy conservation, organizing the plantation drive "Ek Ped Maa ke Naam", encouraging the adoption of healthy lifestyle practices, and conducting the "Swabhav Swachhata - Sanskar Swachhata" campaign. EIACP Hubs and RPs also played a crucial role in supporting the Swachh Bharat Abhiyaan in their respective regions. Below are some of the major activities undertaken by the EIACP Centres:

Sl. No.	Name of the Activity	EIACP Centre Name	Highlights
1	Awareness campaign on Seven Themes under Mission LiFE	All EIACP Hubs/RPs	EIACP Centres organized awareness campaigns focused on the seven key themes of Mission LiFE. These campaigns aimed to address critical environmental issues, including the management of single-use plastic waste, water conservation, energy saving, adoption of sustainable food systems, waste reduction, promotion of healthy lifestyles, and the recycling of e-waste.
2	Ek Ped Maa ke Naam	All EIACP Hubs/RPs	EIACP Centres have undertaken various activities as part of the plantation drive "Ek Ped Maa Ke Naam," during which tree saplings were planted at various locations across India.
3	Swachh Bharat Abhiyaan	All EIACP Hubs/RPs	EIACP Centres had undertaken various activities during this period like cleanliness and sensitization drives, plantation of tree saplings, collection of garbage, litter and trash, administering the Green Pledge, etc.
4	Seva Parv	All EIACP Hubs/RPs	Under Seva parv EIACP centres conducted awareness campaigns on Air Pollution and Plastic waste management from 17 September to 2 <sup>nd</sup> October 2025 at PAN India level. The campaign engaged students, local communities, and general public across multiple states and union territories, reflecting the programme's nationwide out

Sl. No.	Name of the Activity	EIACP Centre Name	Highlights
5	LiFE Pledge and installation of Selfie points under Mission LiFE	All EIACP Hubs/RPs	The selfie booths were installed at various prominent locations of EIACP centres, where people took selfies and were also administered LiFE pledge.

LiFE Report: EIACP is actively involved in Mission LiFE activities. All activities conducted by EIACP Hubs and RPs are compiled in LiFE report and submitted to LiFE Cell every month.

### 3. Activities / Workshops / Events conducted under the EIACP

#### National Evaluation Workshop 2025

The three-day EIACP National Evaluation Workshop 2025 was held at the Wildlife Institute of India, Dehradun, from 18th to 20th September 2025, for performance evaluation of 54 EIACP Centres for the work done during F.Y 2023-24 and 2024-25. The workshop was attended by 230 stakeholders. Day One of the Workshop started with the inaugural session, launch of the Digital Recourse Centre (DRC) portal and various publications, culmination of the Breath of Change campaign, evaluation sessions, and a cultural evening; Day two included intensive parallel evaluations across three venues; and Day 3 started off with the evaluation of the remaining Centres along with Ministry-led sessions on the DRC portal, financial matters, green skilling, and capacity-building initiatives. The workshop concluded with a valedictory programme wherein, WWF India (New Delhi), CPREEC (Chennai), and ASTEC (Assam) were awarded the top three positions. The event ended with closing remarks from MoEFCC, a vote of thanks by WII, and a shared commitment to strengthening EIACP's role in environmental awareness, capacity building, and sustainable development.



#### Digital Resources Centre

The Digital Resource Centre (DRC) is a one stop portal developed and managed by EIACP Cell at the national level through which all EIACP Centres would be able to update of various activities/ events/Programmes scheduled and conducted by them. These may include uploading of various information products, information related to various competitions, workshops, awareness programmes, special publications and reports, celebration of various environmental days, Green Skill (GSDP) and Capacity Building Programme related information, Media Gallery, Recruitment related to EIACP, Kids Corner and so on. The

stakeholders from Ministry of Environment, Forest, and Climate Change (MoEF&CC) and other stakeholders are now able to access information pertaining to all activities under the rubric of EIACP through a unified interface. Also, Centre wise activities can also be explored by the stakeholders as there is a dedicated page for each EIACP Centre. DRC has also been integrated with the Meri LiFE portal via APIs through which LiFE-related activities are directly shared on Meri LiFE portal. The DRC also has dynamic dashboards built into it that displays tabulated data, graphs and charts which can be made use of by various stakeholders based on the requirement.



### Breath of Change Campaign Surges: Delhi-NCR Unites for Cleaner Air

The Breath of Change campaign was not just as a campaign, but as a movement, driven by the power of partnerships, the energy of youth, and the inspiration of community voices which engaged citizens including youth across Delhi-NCR in collective action for cleaner air. Sponsored by EIACP Cell, MoEF&CC, and the Commission for Air Quality Management (CAQM), this three-month initiative (Mid-June to September 2025) culminated as a dynamic, Mission LiFE-aligned

awareness drive. It was implemented through five in Delhi-NCR based EIACP Centres viz. TERI, SPA, IIHH, WWF and JNU with CMS VATAVARAN being the media and outreach partner. Through community mobilisation, school outreach, youth rallies, greening activities, and creative digital engagement, it showcased the impact of citizen-led action for clean air. The model has demonstrated that it is scalable and can be replicated by EIACP Centres nationwide to strengthen their own community-driven initiatives through policy action, scientific data, and powerful community engagement.



### Mega Event: Exhibition cum Awareness Programme on Mission LiFE

The Mission LiFE Maha Kumbh, held from 27th January to 5th February 2025 in Prayagraj, Uttar Pradesh, was a large-scale awareness and sensitisation initiative of the MoEF&CC,

particularly in Scheduled Caste community areas.

The Sulabh International Institute of Health and Hygiene (IIHH)-EIACP RP team actively promoted sustainable living practices under the Mission LiFE (Lifestyle for Environment) awareness program in and around Juna Akhada, Mela Kshetra Near Dara Ganj Maha Kumbh and Sonkar Basti, Prayagraj, Uttar Pradesh.

As part of this initiative, Mission LiFE caps were distributed, and informative banners were displayed to encourage devotees and local residents to adopt eco-friendly practices in their daily lives. Local residents enthusiastically participated by taking the Mission LiFE pledge, committing to sustainable actions for a healthier environment.



### **Mission LiFE Mass Awareness cum Sensitization event**

A two-day Mission LiFE Awareness cum Sensitization event was conducted by SPA, Delhi EIACP RP on February 27th and 28th 2025 at the Mahashivratri Fair in Paddal Ground, Mandi, Himachal Pradesh from February 27th to March 5th 2025. The primary focus of the event was to raise awareness about Mission LiFE, emphasizing the importance of integrating sustainable practices into daily life. Through engaging sessions and informative talks, the team highlighted key issues such as climate action, environmental

conservation, and the urgent need for adopting a sustainable lifestyle.



### **National Hackathon on Human–Wildlife Coexistence: Engaging Youths for Innovative Solutions (Preliminary Round)**

The National Hackathon on Human–Wildlife Coexistence: Engaging Youths for Innovative Solutions (Preliminary Round) was held on 30 September–1 October 2025 at the Wildlife Institute of India (WII), Dehradun, organized through WII host Institute and its EIACP centres as part of Wildlife Week 2025. Aimed at harnessing youth creativity, scientific thinking, and technological innovation to address Human–Wildlife Conflict, the hackathon brought together students, innovators, researchers, and startups from across India. Participants competed across four thematic areas—Technology-Based Solutions, Financial Mechanisms, Community Engagement Approaches, and Species-Specific Solutions.



#### 4. Celebration of various Environmental Days:

- World Wetland Day, 2025 – 2nd February  
The Wetlands Division of the Ministry of Environment, Forest and Climate Change (MoEF&CC) organized a series of activities across the country to mark World Wetlands Day (WWD) 2025 on 2nd February 2025. Aligned

with the theme “Protecting Wetlands for Our Common Future”, the celebrations highlighted the importance of safeguarding wetlands to secure a sustainable future for all. Proposed activities included a nationwide painting competition, nationwide nukkad natak competition, awareness programmes, and exhibitions.

EIACP Centres viz. G.B. Pant National Institute of Himalayan Environment (GBPNHE), Institute for Wildlife Sciences (IWS), University of Lucknow, National Botanical Research Institute (NBRI), World Wide Fund for Nature-India (WWF), School of Planning and Architecture (SPA), and The Energy and Resources Institute (TERI) actively participated in the programme. These Centres conducted awareness activities with school and college students and showcased Green Skill Development Programme (GSDP) initiatives and green products in the exhibition. The programme was held at the Parvati Arga Ramsar Site in Gonda, Uttar Pradesh.



The exhibition stall displayed GSDP products, knowledge materials on human settlements

including a children’s puzzle on wetlands—along with sustainable items such as recycled cloth bags. The Centres highlighted the critical role of wetlands in environmental conservation, biodiversity protection, and supporting sustainable livelihoods.



- **World Environment Day, 2025 - 5 June**  
World Environment Day was celebrated on 5th June 2025 wherein the nationwide network of EIACP Programme Resource Partners and Hubs conducted a series of impactful activities.

These initiatives included a large-scale plantation drives, vibrant awareness rallies, focused campaigns, the publication of informative posters, environmental quizzes, interactive sessions.

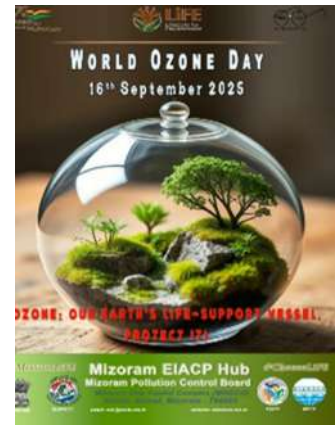


- **International Yoga Day, 2024 – 21 June**  
On 21st June 2024, all EIACP centres celebrated International Day of Yoga, embracing the theme "Yoga for Self and Society." The event not only emphasized the physical and mental benefits of yoga but also integrated the Mission LiFE (Lifestyle for Environment) message, underscoring the role of yoga in promoting a healthy, balanced, and sustainable lifestyle. Through this celebration, EIACP centres encouraged individuals to adopt yoga as a practice for personal well-being and collective societal harmony. Notable among these is the event, titled ‘Yoga Sangam’ organized by WWF EIACP RP, which on the theme “Yoga for One Earth, One Health” through a synchronized mass yoga demonstration based on the Common Yoga Protocol (CYP). This initiative reflected the collective spirit of environmental and personal well-being and contributed to the nationwide celebration of yoga as a holistic lifestyle.



- World Ozone Day, 2024 - 16 September  
The theme for World Ozone Day 2025 was "From Science to Global Action." On this significant day, EIACP Programme Centres actively raised awareness about the crucial role of the ozone layer and its importance to global climate health. Through a series of informative

lectures, poster exhibitions, engaging quizzes, and educational activities, the centres highlighted the critical need for ozone protection and its vital connection to climate action. Around 22,000 participants took part in the events.



EIACP Hubs and Resource Partners (RPs) also commemorated several other significant environmental observances throughout the year, including World Wetland Day, Earth Day, World Ocean Day, International Biodiversity Day, Wildlife Week, Lion Day, and World Mosquito Day. On each of these occasions, they organized a wide range of awareness activities, aligned with the specific themes of the day, to promote environmental consciousness and foster greater public engagement with pressing ecological issues. School, college students as well as the general public were actively involved in these initiatives.

## 5. Achievements of EIACP

- **Green Skill Development Programme (GSDP):** In FY 2024–25, 823 candidates were trained out of which 579 secured employment or initiated entrepreneurial ventures. In FY 2025–26, funds have been released to 18 EIACP Centres for conducting 40 batches with a target of training 950 additional candidates by end of FY 2025-26.
- **Capacity Building Programmes (CBPs):** 22 EIACP Centres organized 67 Capacity Building Programmes, training 1,363 participants in various environmental domains.
- **Nationwide Outreach:** Collectively, EIACP Centres organized approximately 1,825 awareness and outreach events, including Mission LiFE awareness events, reaching
- **Digital Resource Centre:** All the legacy information from the individual EIACP websites have been migrated to DRC portal and from October 2025 onwards, the information generated and compiled by all 54 EIACP Centres is being updated on the portal in real time.
- **Breath of Change Campaign:** a three-month campaign titled “The Breath of Change – Clean Air for Blue Skies,” was conducted across 13 air-pollution hotspots in Delhi–NCR, the initiative mobilized over 1.7 lakh citizens, including 50,000 youth, fostering collective action for cleaner air. The campaign, through sustained engagement was able to generate over 5 million digital impressions
- **Mission LiFE Outreach at Maha Kumbh 2025:** During the Mission LiFE Maha Kumbh held from 27th January to 5th February 2025 in Prayagraj, Uttar Pradesh, IHH EIACP Centre carried out large-scale public sensitization. At key locations such as Juna Akhada, an estimated 10,000 pilgrims per day were reached, with over 1 lakh individuals sensitized on environmental conservation, energy efficiency, and water management.
- **Mission LiFE Awareness at Mahashivratri Fair:** EIACP RP at SPA, Delhi organized a two-day Mission LiFE Awareness and Sensitization Programme on 27–28 February 2025 during the

- Mahashivratri Fair engaging 3,500 participants.
- National Hackathon on Human–Wildlife Coexistence : A total of 420 participants forming 120 teams from 75 institutions across 20 States took part, presenting their ideas online from multiple venues at WII. All teams were evaluated on innovation, feasibility, scalability, sustainability, and impact, and 12 teams were shortlisted for the Grand Finale.

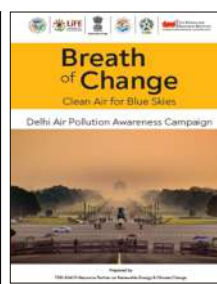
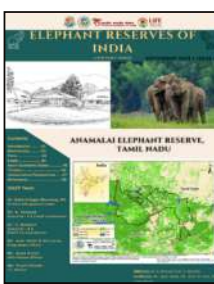
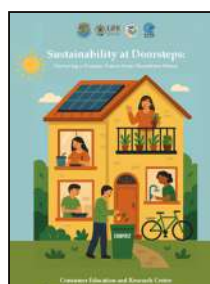
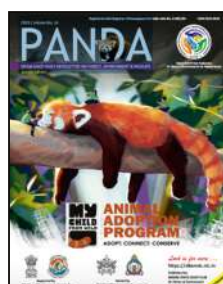
## 6. Knowledge products released during the year

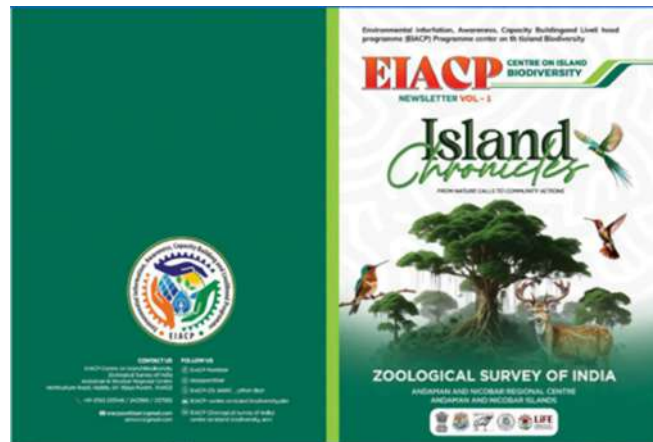
EIACP consistently brings out a wide range of valuable information products focused on

### Publications

Environment, Forests, Wildlife, and Climate Change. These include theme-based newsletters, special publications, e-newsletters, thematic bulletins, technical reports, mobile apps, posters, and directories of information at the State, Regional, and National levels. Additionally, the programme develops bibliographies, informational products on parks and sanctuaries, thematic maps, and species distribution maps for flora and fauna. Below are some of the key knowledge products produced by EIACP:

Sl. No.	EIACP Centre Name	Title	Publication type
1	ZSI ANRC	Island Chronicles from Nature calls to community Action Vol. 1	Newsletter
2	Sikkim Hub	PANDA Vol 16	Newsletter
3	SPA	Source and sinks of Air Pollution	Booklet
4	WII Dehradun	Elephant Reserves of India <a href="https://dx.doi.org/10.13140/RG.2.2.19368.84485">https://dx.doi.org/10.13140/RG.2.2.19368.84485</a>	Wildlife Series
5	TERI	Breath of Change – Clean Air for Blue skies	Booklet
6	CERC	Sustainability at Doorsteps: Nurturing a Greener Future from Home from Home	E-Book
7	EMPRI	Climate Action in waste management sector	Special Publication
8	TCE	National Wild Life week	Special Issue





Mobile App

Green Puducherry: The Green Puducherry app promotes tree plantation, enables real-time sapling monitoring, and encourages citizens to create a

greener, sustainable Puducherry.

<https://play.google.com/store/apps/details?id=com.green.pondy>

**7. Grants-in-aid released to Institutions/ organizations including NGOs (as of November 20, 2025)**

The details of Grants-in-Aid released for mandated activities of EIACP Cell in the Ministry and EIACP Hubs/ RPs during F.Y. 2025-26 (1st April 2025 to 20th November 2025) to various organizations are as follows:

Sl. No.	Name of Organisation	Purpose	Total Amt release 2025-26 (Amount in ₹)
1	Asian Development Research Institute (ADRI), Patna	Fund release for conducting Capacity Building Programme for FY 2025-26	1,82,500.00
2	Department of Environment & Forests – Arunachal Pradesh	Recurring Grant for FY 2025-26	12,02,000.00
3	Assam Science, Technology and Environmental Council (ASTECC), Guwahati	Fund release as recurring grant and conducting GSDP Courses & Capacity Building Programme for FY 2025-26	13,50,000.00
4	Bombay Natural History Society (BNHS), Mumbai	Recurring Grant for FY 2025-26	12,02,000.00
5	Botanical Survey of India (BSI), Kolkata	Fund release as recurring grant and conducting GSDP Courses & Capacity Building Programme for FY 2025-26	12,62,625.00

Sl. No.	Name of Organisation	Purpose	Total Amt release 2025-26 (Amount in ₹)
6	Centre of Advanced Study in Marine Biology (CASMB), Parangipettai	Fund release as recurring grant and conducting GSDP Course & Capacity Building Programme for FY 2025-26	46,02,000.00
7	Central Arid Zone Research Institute (CAZRI), Jodhpur	Recurring Grant for FY 2025-26	12,02,000.00
8	Consumer Education and Research Centre (CERC), Ahmedabad	Recurring Grant for FY 2025-26	13,84,566.00
9	Department of Environment - Chandigarh	Recurring Grant for FY 2025-26	12,02,000.00
10	Chhattisgarh Environment Conservation Board (CECB), Raipur	Recurring Grant for FY 2025-26	12,02,000.00
11	CPR Environmental Education Centre (CPREEC), Chennai	Fund release as recurring grant and conducting GSDP Course & Capacity Building Programme for FY 2025-26	47,46,500.00
12	Department of Environmental Science, University of Kalyani (DESKU), Nadia	Fund release as recurring grant and mega event for FY 2025-26	16,42,000.00
13	Department of Zoology - University of Madras (DzUM), Chennai	Fund release as recurring grant and conducting GSDP courses for FY 2025-26	44,78,000.00
14	Environment Management & Policy Research Institute (EMPRI), Bengaluru	Fund release as recurring grant and conducting GSDP Course & Capacity Building Programme for FY 2025-26	30,91,250.00
15	Environment Protection Training and Research Institute (EPTRI-Hub), Hyderabad	Fund release as recurring grant and conducting GSDP Course & Capacity Building Programme for FY 2025-26	55,37,875.00
16	Forest Research Institute (FRI), Dehradun	Recurring Grant for FY 2025-26	12,02,000.00
17	G.B. Pant National Institute of Himalayan Environment (GBPNIHE), Almora	Fund release as recurring grant and conducting Capacity Building Programme for FY 2025-26	14,88,000.00
18	Gujarat Cleaner Production Centre (GCPC), Gandhinagar	Recurring Grant for FY 2025-26	12,02,000.00
19	Himachal Pradesh Council for Science Technology & Environment (HIMCOSTE), Shimla	Fund release as recurring grant and conducting Capacity Building Programme for FY 2025-26	12,66,500.00
20	Institute of Forest Genetics and Tree Breeding (IFGTB), Coimbatore	Fund release as recurring grant and conducting GSDP Course & Capacity Building Programme for FY 2025-26	44,95,000.00

Sl. No.	Name of Organisation	Purpose	Total Amt release 2025-26 (Amount in ₹)
21	Indian institute of Chemical Technology (IICT), Hyderabad	Recurring Grant for FY 2025-26	24,11,212.00
22	International Institute of Health and Hygiene (IIHH), Delhi	Fund release as recurring grant and conducting GSDP Course & Capacity Building Programme for FY 2025-26	1,03,44,500.00
23	Indian Institute of Sciences (IISc), Bengaluru	Recurring Grant for FY 2025-26	16,50,785.00
24	IIT-Indian School of Mines (ISM), Dhanbad	Fund release as recurring grant and conducting GSDP Course & Capacity Building Programme for FY 2025-26	62,39,750.00
25	Indian Institute of Tropical Meteorology (IITM), Pune	Recurring Grant for FY 2025-26	12,02,000.00
26	Institute for Ocean Management (IOM), Chennai	Fund release as recurring grant and conducting Capacity Building Programme for FY 2025-26	12,57,500.00
27	Institute for Wildlife Sciences, University of Lucknow, Lucknow	Recurring Grant for FY 2025-26	13,28,000.00
28	Department of Ecology, Environment and Remote Sensing, State Government of J&K	Recurring Grant for FY 2025-26	12,02,000.00
29	Forest & Environment Department, Govt. of Jharkhand, Ranchi	Recurring Grant for FY 2025-26	12,02,000.00
30	School of Environmental Science, Jawaharlal Nehru University (JNU), New Delhi	Fund release as recurring grant and conducting Mega Event for FY 2025-26	14,52,614.00
31	Kerala State Council for Science, Technology and Environment (KSCSTE), Thiruvananthapuram	Fund release as recurring grant and conducting Capacity Building Programme for FY 2025-26	58,07,125.00
32	Department of Environment & Forests (DoE&F), Kavaratti, Lakshadweep	Recurring Grant for FY 2025-26	12,02,000.00
33	Directorate of Environment, Dept. of Forests and Environment, Govt. of Manipur, Imphal	Fund release as recurring grant and conducting Capacity Building Programme for FY 2025-26	13,25,750.00
34	The State Council of Science and Technology Environemnt, Meghalaya	Fund release as recurring grant and conducting GSDP Course for FY 2025-26	42,28,999.00
35	Mizoram Pollution Control Board (MPCB), Aizawl	Fund release as recurring grant and conducting GSDP Course for FY 2025-26	49,58,000.00

Sl. No.	Name of Organisation	Purpose	Total Amt release 2025-26 (Amount in ₹)
36	Nagaland Pollution Control Board (NPCB), Dimapur	Recurring Grant for FY 2025-26	12,02,000.00
37	National Botanical Research Institute (NBRI), Lucknow	Fund release as recurring grant and conducting Capacity Building Programme for FY 2025-26	13,48,658.00
38	National Institute of Occupational Health (NIOH), Ahmedabad	Recurring Grant for FY 2025-26	12,15,799.00
39	Centre for Environmental Studies (CES), Forest & Environment Department, Government of Odisha	Fund release as recurring grant and conducting Capacity Building Programme for FY 2025-26	12,53,000.00
40	Puducherry Pollution Control Committee (PPCC), Puducherry	Fund release as recurring grant and conducting GSDP Course & Capacity Building Programme for FY 2025-26	73,13,250.00
41	Punjab State Council for Science and Technology (PSCST), Chandigarh	Fund release as recurring grant and conducting Capacity Building Programme for FY 2025-26	23,44,000.00
42	Salim Ali Centre for Ornithology and Natural History (SACON), Coimbatore	Fund release as recurring grant and conducting Capacity Building Programme for FY 2025-26	12,50,750.00
43	Forests, Environment & Wildlife Management Department, Sikkim, Gangtok	Recurring Grant for FY 2025-26	12,02,000.00
44	State Council of Science and Technology Sikkim (SCSTS), Gangtok	Recurring Grant for FY 2025-26	12,02,000.00
45	School of Planning and Architecture (SPA), New Delhi	Fund release as recurring grant, Mega Event and conducting Capacity Building Programme for FY 2025-26	20,90,929.00
46	Department of Environment, Govt. of Tamil Nadu	Fund release as recurring grant and conducting Capacity Building Programme for FY 2025-26	12,69,500.00
47	Thiagarajar College of Engineering (TCE), Madurai	Recurring Grant for FY 2025-26	12,45,400.00
48	The Energy Resources Institute (TERI), New Delhi	Fund release as recurring grant, Mega Event and conducting GSDP Courses & Capacity Building Programme for FY 2025-26	1,30,40,500.00

Sl. No.	Name of Organisation	Purpose	Total Amt release 2025-26 (Amount in ₹)
49	Tripura State Pollution Control Board (TSPCB), Agartala	Recurring Grant for FY 2025-26	12,02,000.00
50	Uttarakhand Pollution Control Board (UKPCB), Dehradun	Recurring Grant for FY 2025-26	12,02,000.00
51	Wildlife Institute of India (WII), Dehradun	Fund release as recurring grant, Mega Event, National Evaluation Workshop and conducting GSDP Courses for FY 2025-26	73,42,000.00
52	World Wide Fund for Nature-India (WWF), New Delhi	Fund release as recurring grant, Mega Event and conducting GSDP Courses & Capacity Building Programme for FY 2025-26	75,26,249.00
53	Zoological Survey of India (ZSI), Kolkata	Recurring Grant for FY 2025-26	12,02,000.00
54	Zoological Survey of India, Andaman & Nicobar Regional Centre	Fund release as recurring grant, Mega Event and conducting GSDP Courses for FY 2025-26	56,88,000.00
Total			14,98,93,086.00

## 11.2 National Museum of Natural History

### 1. National Museum of Natural History (NMNH)

#### a. Introduction

The National Museum of Natural History, a subordinate office of Ministry of Environment, Forest and Climate Change, Government of India, was open to public on 5th June, 1978 at Mandi House, New Delhi coinciding symbolically with the World Environment Day with aiming to create environmental awareness on nature and environment through non formal medium such as thematic galleries, exhibitions, film shows and educational activities to all masses of society in respect of to promote environmental awareness.

NMNH, New Delhi has its four Regional Museums of Natural History (RMNH) in different parts of the country viz. Mysuru, Bhopal, Bhubaneswar and RGRMNH Sawai Madhopur. Another RMNH

at Gangtok is under construction to cover North-East region.

After fire incident in April, 2016, the NMNH is functioning from CGO Complex, Lodhi Road, New Delhi. Construction of permanent building of NMNH is under progress at Paragati Maidan, Bha-iron Mandir Marg, New Delhi.

The objectives of NMNH are: to develop the NMNH in the country's Capital to achieve the highest level of quality to promote environmental education on a national level; to develop Regional offices (regional museum of natural history) in various regions of the country in order to extend its activities at the regional/local levels; to develop museum-based educational projects at the level so as to help school curriculum on environmental education (EE); to develop EE resource materials (such as audio-visual aids, low-cost teaching aids, school loan kits, etc.) to promote environmental education (EE); to undertake research (museologi-

cal and collection based) consonant with the scope and resources of the museum; to extend professional help to other agencies/organizations regarding natural history collections/museums, to develop national and international cooperation/collaboration with other organizations/professional bodies/museums related to natural history/EE.

**b. Activities undertaken**

- The NMNH and its Regional centres has been undertaking Environmental educational programmes/activities round the year to all masses of the society to enhance knowledge on environmental awareness such as Temporary / Thematic Exhibitions (16 Nos.), Teacher Training Workshops (05 Nos.), Competitions (30 Nos.), Talks / Lectures (43 Nos.), Mass Awareness Campaigns (61 Nos.), Exhibits of the month (29 Nos.), Series of Workshops on Climate Change (05 Nos.), Programme for Children with Special Needs / Underprivileged (09 Nos.), Campus Bird Count Programme (01 No.).

**• Educational programmes/ activities:**

The Flagship/important programmes / activities of NMNH were organized such as online Summer Vacation Programme, World Wetlands Day, World Water Day, World Forestry Day, Earth Day, International Day of YOGA, International Tiger Day, Van Mahotsav, World Elephant Day, International Day for Disabled, World Environment Day, International Ozone Day, Wildlife Week, Orientation Workshop for Teachers, Awareness programmes on Mission LiFE, Swachhata Hi Sewa Special Campaign, Nukkad Natak Competition, Story Writing Competition etc. Collaborative programmes were organised with different institutions/organisations such as Government departments/organizations, UNDP and State Universities, State Forest Department etc. through webinars, online/offline competitions, lectures and workshops for the betterment of users. Social media

platforms such as official website, Twitter were used for wide publicity of the programmes. YouTube Channel of NMNH was utilized to upload and share the educational videos.

Assisted Ministry of Environment, Forest and Climate Change, in MoEFCC Pavilion on #Mission LiFE at “BHARAT PARV 2025” – Red Fort, Mega Beach Clean-up Celebration of World Environment Day 2025 at Bharat Mandapam, World Wetland Day 2025, “Global Tiger Day 2025” Celebration Event at National Zoological Park, Sewa Parv in which students from Delhi/NCR was invited to Asola-Bhatti Wildlife Sanctuary, New Delhi and approximately 800 saplings was planted.





### 11.3 Media Cell

Media Cell of MoEF&CC is mandated with taking up awareness campaigns using print, electronic and other mass media to enhance awareness about various environmental issues, which would in turn facilitate better compliance with environmental regulations.

## 1. Broad Objectives of Media, Publicity and Information:

- i. Creation of Environment Awareness at all levels.
- ii. Information dissemination about all Environment, Climate Change, Forest/Wildlife programmes, Biodiversity matter.
- iii. Awareness generation regarding people's responsibilities towards environment.

## 2. Major Activities of Media Division:

### A. Celebration of World Environment Day, 2025:

The Ministry celebrates World Environment Day (WED) on 5th June every year to encourage awareness and action for the protection of the environment.

The Ministry celebrated the World Environment Day (WED), 2025 at Bharat Mandapam, New Delhi on 5th June, 2025 with the theme 'One Nation, One Mission: End Plastic Pollution'. The event saw the participation of members of industry, civil society, students and Government officers from the States and Central Ministries/Departments concerned.

The National Plastic Pollution Reduction Campaign (NPPRC) was launched for the period from 5th June to 31st October, 2025. The campaign included the activities to reduce plastic pollution in urban and rural areas under Swachhta Hi Sewa programme. As per data reported on Meri LiFE portal by the Department of Drinking Water and Sanitation, 4,23,951 kg of plastic waste was collected and 1,07,155 Say-no-to-Plastic drives were held across the country during Swachhta Hi Sewa programme.

A one-day National Expo on eco-alternatives to banned single use plastic was organised on 5th June, 2025. The expo saw the participation of around 150 start-ups, recyclers and local bodies from across India showcasing innovative technologies and best practices on eco-alternatives and plastic waste management.

As part of WED, 2025, three technical sessions were organised on (i) Perspectives of local bodies on plastic waste, (ii) Promoting start-ups in eco-alternatives and plastic waste management and (iii) EPR on plastic packaging: opportunities and way forward.

The Ministry released ‘Compendium of Manufacturers/Sellers of Eco-alternatives to Banned Single Use Plastic Items’, on WED, 2025. The compendium provides details of nearly 1000 such units spread across the country. The compendium is available on the website of Central Pollution Control Board for wider dissemination and use.

A publication on ‘Government Initiatives on Ending Plastic Pollution’ was also released on WED, 2025, which covered the steps taken by the Government to address plastic pollution. The book highlighted the strength of collective action by all stakeholders including Government and Industry.

The National Hackathon – 2025 on “Eco-Alternatives to Single Use Plastics” was launched by Central Pollution Control Board on World Environment Day, 2025, as part of a series of initiatives under the National Plastic Pollution Reduction Campaign. The initiative provided a national platform for start-ups registered under Government schemes, science, research and educational institutions, and industrial entities to present already developed solutions addressing plastic waste challenges.

The hackathon received 931 registrations, out of which 231 solutions were submitted. The details of the winners are as below:

**Winners of Problem Statement 01 – To provide an eco-friendly, economically viable, and scalable solution to banned thin plastic carry bags (less than 120  $\mu$ m in thickness), which continue to be a major contributor to plastic waste despite regulatory restrictions.**

Rank	Solution Title	Winner's Institution Name
1	A Novel Flower-to-Film Approach: Design and CCD Optimization of Starch-Based Bioplastics Reinforced with Hibiscus rosa-sinensis Fiber	Department of Biotechnology, MIT Manipal
2	Solving Plastic Packaging Waste with Jute-Based Flexible Composites	ICAR–NINFET, Kolkata
3	Seaweed-Derived Biodegradable Plastic	Department of Paper and Packaging Technology, IIT Roorkee

**Winners of Problem Statement 02 – To provide an eco-friendly, technically feasible and economically viable solution to thin plastic packaging.**

Rank	Solution Title	Winner's Institution Name
1	Phycocolloid Agar-Based Food Packaging Material	Department of Biotechnology, Rajalakshmi Engineering College
2	A High-Performance, Eco-Friendly Coating Made with Rice Straws	REVA University
3	Chitosan-Based Sustainable Packaging: An Alternative Approach to Single-Use Plastics	Department of Paper and Packaging Technology, IIT Roorkee

Cash prizes of ₹1,00,000, ₹75,000, and ₹50,000 were distributed to the first, second and third rank holders, respectively.

An 'Ideas4LiFE initiative' under the framework of Mission LiFE to seek innovative ideas from students, faculties, research scholars, etc. on seven themes of Mission LiFE was launched in 2024. A total of 1384 entries were received, out of which, 21 ideas with top 3 ideas in each of the seven themes were shortlisted and felicitated on the World Environment Day on June 5, 2025.

As part of advocacy and outreach, a Mission LiFE Pavilion was set up by the Ministry on World Environment Day 2025. Dedicated LiFE Pavilions featured interactive digital displays, Virtual Reality experiences and live demonstrations, enabling visitors to explore the seven LiFE themes, take pledges, and commit to sustainable lifestyles.

On the occasion of World Environment Day, 2025,

National Museum of Natural History (NMNH) launched the following National level online Competitions for school students on the theme "One Nation, One Mission: End Plastic Pollution":

1. Poem Writing (Class 9-12)
2. Slogan Writing (Class 6-8)
3. Nukkad Natak (Class 6-12)

To commemorate World Environment Day, 2025 and to sensitize the young minds on plastic pollution, NMNH invited paintings from students of class 6th to 8th for "National Level Painting Competition" on the theme – "Ending Plastic Pollution Globally" in which 19,633 paintings from 28 States and 6 UTs were received and the paintings were displayed during the World Environment Day, 2025.

## B. Production and airing of documentary series ‘Dharti Kare Pukaar’ on Doordarshan:-

The Ministry produced 26 episodes of documentary series ‘Dharti Kare Pukaar’, which were telecast on Doordarshan National from 10th August, 2024 to 22nd February, 2025 during the Prime Time on Saturdays and repeat telecast on Sundays. The documentary series covered topics from Wetlands, Forest, Wildlife, ban on Single Use

Plastic, Climate Change, Mission LiFE, Biodiversity etc. The noted Environmentalist Shri Mike Pandey anchored the documentary series.

## C. Social Media:

The Ministry has social media accounts on Twitter, Facebook, Instagram, YouTube and LinkedIn and the approximate numbers of videos, creatives, posts uploaded are as below:-

S.No.	Social Media Handle	Followers on December 2025	Videos uploaded	Creatives uploaded	Total post
1	Facebook	2,80,000	11	77	88
2	Instagram	1,11,000	13	81	94
3	X(Twitter)	3,01,000	15	88	103
4	YouTube	14,300	19	-	19
5	LinkedIn	34,500	8	51	59

Besides, several reposts were also made on the social media handles. Efforts were made to spread awareness about the major achievements/breakthroughs of the Ministry and its Subordinate Offices, Autonomous Bodies, etc., towards the protection of environment.

## D. Other activities:

The Ministry provides non-financial logo support in the form of official logo of the Ministry and Mission LiFE logo for an event or environmental competitions, awareness programs, workshops, conferences, educational campaigns, etc., mainly aiming at awareness generation about environment protection. During the year, 34 logo support were provided for various events, summit, expo, etc.

## 11.4 Swachh aur Swastha Bharat Cell

### 1. Swachh aur Swastha Bharat (SSB) Cell

#### a. Introduction, objectives and functions

SSB Cell of the Ministry is responsible for the Swachhata Action Plan (SAP).

SAP is a part of the ‘Awareness’ component of the umbrella scheme “Environment Education, Awareness, Research and Skill Development” (EEARSD) of the Ministry.

#### b. Major objectives

To oversee, execute and monitor the programmes under Swachhata Action Plan, the Swachh aur Swastha Bharat (SSB) Cell was established in the Ministry in the year 2017-18.

#### c. Activities undertaken

Swachhata Action Plan for setting up of bio-toilets has been finalized for 2025-26 and an amount of ₹3.80 Crore would be released to the implementing agency NTCA.

#### d. Important Cumulative Achievements

- Swachhata Action Plan for setting up of bio-toi-

lets finalized for 2025-26.

- An amount of ₹3.80 Crore allocated for release to the implementing agency NTCA
- An amount of ₹1.90 Crore released to the implementing agency NTCA as on 30.12.2025.

## 2. Swachhata Action Plan (SAP)

### a. Introduction, objectives and functions

- i. To accelerate the efforts to achieve universal sanitation coverage and to put focus on sanitation, the Prime Minister of India had launched the Swachh Bharat Mission on 2nd October 2014. The mission was implemented as nationwide campaign/Jan andolan which aimed at eliminating open defecation in rural areas during the period 2014 to 2019 through mass scale behavior change, construction of household-owned and community-owned toilets and establishing mechanisms for monitoring toilet construction and usage. Department of Drinking Water and Sanitation, Ministry of Jal Shakti has been entrusted to build bio-toilet and solid waste management facilities in rural areas and Ministry of Housing and Urban Affairs has been entrusted for urban areas.
- ii. Swachhta Action Plan (SAP) is an inter-Ministerial initiative of Government of India, it was initiated in the year 2017-18 on the directions received from Cabinet Secretariat and Department of Drinking Water and Sanitation (DDWS), Ministry of Jal Shakti (MoJS). Accordingly, all Ministries/Departments of Government of India started preparing and implementing the SAP.
- iii. A separate budget head was created for this scheme in the year 2017-18 as per the directions received from Department of Expenditure, Ministry of Finance to enable central monitoring for expenditures made under SAP. To oversee, execute and monitor the programmes under Swachhta Action Plan, the Swachh aur Swasth Bharat (SSB) Cell was established in the Ministry in the year 2017-18.

- iv. During the period 2018-21 SAP was implemented as a non-scheme programme wherein funds were disbursed from Other Administrative Expense Object head towards meeting the expenditure incurred on SAP activities.
- v. To overcome the above procedural hiccup and streamline the programme a “Grant-in-Aid-General” Object head was created in year 2021-22 and the Swachhta Action Plan has been mainstreamed under the Environmental Information, Awareness, Capacity building and livelihood Programme of the Scheme “Environment Education, Awareness, Research and Skill Development”. The scope of the program now includes building of bio-toilets at National Parks and sanctuaries.
- vi. The revamped scheme consists of following components:
  1. Environment Education Programme
  2. Environmental Research & Development Programme
  3. Environmental Information, Awareness, Capacity building and livelihood Programme
 SAP has been placed under the third component for up scaling and consolidating the awareness programmes under the Ministry for a wider outreach.

### Major objectives of the Swachhata Action Plan (SAP)

- i. To raise awareness by building Bio-Toilets at National Parks and Sanctuaries.
- ii. To educate visitors/ stakeholders regarding cleanliness and thereby encouraging citizens to use toilets which will enhance the motto of the Swachh Bharat Mission.

### b. Progress/Achievements

So far, a total of ₹12.19 Crores has been released to the Implementing Agency NTCA for setting up of Bio-Toilets under SAP since the scheme was mainstreamed under EEARSD in 2021.

An amount of ₹1.90 Crores has been released to the NTCA in 2025 under SAP.

### 3. Grant-in-aid released to Institutions/organisations including NGOs.

S. No	Name of Organisation	Purpose	Total amount Released	Status of third party evaluation	Remarks
1.	National Tiger Conservation Authority (NTCA)	Setting up of Bio-Toilets in selected Tiger Reserves & Wildlife Sanctuaries	₹1.90 Crores	Completed	

## 11.5 Economic Division

### a. Introduction, objectives and functions

Economic Division in the Ministry is responsible for the following areas of work:

- i. Nodal Division to deal with references received from M/o Commerce & Industry relating to Trade & Environment including Cabinet / Cabinet Committee/ Committee of Secretaries matters of DoC and DPIIT, matters relating to furnishing of updated status on Budget Announcements and inputs for Budget Speech of Hon'ble Finance Minister to Department of Economic Affairs, NCTF Secretariat, CBIC on NCTF matters, DBT Mission, Cabinet Secretariat on DBT and reforms in GST and its action plan matters.
- ii. Coordination of Ministry's position on trade-related matters referred by other Ministries, including Regional/ Bilateral/ Multilateral Trade Agreements on environmental, ecology, wildlife and forestry issues; Trade Policy Review of India by WTO; Free Trade Agreements (FTA); Comprehensive Economic Cooperation Agreements; Bilateral investment agreements/ investment protection agreements etc.
- iii. Coordination of matters related to relevant areas considered/reviewed by National Committee on

Trade Facilitation (NCTF) headed by the Cabinet Secretary, wherein Secretary, EF&CC is a Member.

- iv. Nodal for matters related to DBT schemes including coordination with the DBT Mission, Cabinet Secretariat to on-board/off-board schemes of the Ministry on DBT Bharat portal.

### b. Important activities undertaken

- Participated in negotiations on behalf of the MoEF&CC in the Trade and Sustainable Development/Environment Chapter for the India–EU, India–New Zealand, and India–Chile negotiations.
- Provided comments on various themes of trade and environment of WTO and forwarded to Department of Commerce.
- Provided comments to DoC and DPIIT on various Cabinet Notes, EFCs.
- Furnished comments on DCNs on National Deep Tech Start-up Policy (NDTSP), Coffee Promotion Development Bill 2025, repeal of the explosives Act 1884 and Re-enactment of the Explosives Bill 2025, Ratification of the Agreement on Fisheries Subsidies, Cross-Border and Paperless Trade in Asia and the Pacific, etc., to DoC and DPIIT respectively.
- Furnished comments on EFCs/DIB on scheme for development of plug and play for Industrial Parks, Emerging Export Hubs from India'

scheme, Export Promotion Mission, Footwear & Leather Oriented Advancement (FLOAT) Programme, DIB on Phase-II Development of Bharat Mandapam to DPIIT.

- Provided comments/inputs to DoC on various matters of Environmental Services, Trade and Sustainable Development, Most Favoured Nation (MFN) Treatment as part of Chapters in India-New Zealand FTA, Goods Chapter and Energy and Raw Material Chapter under India-EU FTA, Stakeholder Consultations under India-Korea CEPA negotiations, Tariff lines for ASEAN-India Trade in Goods Agreement, India-Mauritius, India-New Zealand, India-EU FTA, India-Chile FTA, Environmental Services under India-Australia CECA, India-Chile, India-New Zealand, Specific issues on environment for India-Thailand FTA, India-Russia JETCO on Environment related matters, comments/inputs on India-Australia RoO (Rules of Origin).
- Provided comments to D/o Commerce and participated in the negotiations under India-Australia Comprehensive Economic Cooperation Agreement (CECA). Also, furnished written explanation on the Common but Differentiated Responsibilities and Respective Capabilities (CBDR-RC), as sought by D/o Commerce, with respect to the India- Australia CECA.
- Updated response on all the questions and Action plan relating to B-Ready Methodology Framework of World Bank and forwarded to DPIIT.
- Provided inputs/ comments to D/o Commerce in respect of tariff lines for the ASEAN- India Trade in Goods Agreement (AITIGA). This Division has also participated actively in the review of the AITIGA and in the successive rounds of negotiations.
- Shared inputs on various trade related issues to DoC, responses on Parliamentary Standing Committee of DPIIT.
- Prepared material for Economic Survey 2024-

25 and comments/inputs on matters on Country Strategy and Programme Evaluation Report of IFAD-COSOP to DEA.

- Prepared analysis of Budget paras pertaining to MoEF&CC and Furnished updated status on Budget Announcement/Budget Paras to DEA.
- Furnished inputs/updated status on action points on e-Samiksha matters
- Reported Monthly Progress and Annual Progress reports on achievements of DBT schemes to DBT Mission, Cabinet Secretariat.

## 11.6 Statistics Division

The Statistics Division in the Ministry of Environment, Forest and Climate Change liaisons with all the divisions of the Ministry and, where necessary, its subordinate offices and autonomous institutions to strengthen the process of collection, validation processing and interpretation of statistical data. Statistics Division also works as SDG coordination unit in the Ministry.

Statistics Division of the Ministry undertakes various tasks under the following components :

### I. Activities undertaken in respect of Sustainable Development Goals, SDGs in the Ministry

MoEF&CC is implementing Sustainable Development Goals (SDGs) relevant to the Ministry and is in particular responsible for SDG Goals 12, 13 and 15. Statistics Division acts as the nodal division for SDG indicator framework and coordinates for the implementation of SDGs and related frameworks in the Ministry. The following is the role of SDG Coordination unit-

- i. Coordination with NITI Aayog, Ministry of Statistics and Programme Implementation (MoSPI) and Custodian Agencies of SDG Global Indicators.
- ii. Coordination with the divisions and various line Ministries/Departments for the metadata,

- baseline data and data flow.
- iii. Works on the data gaps and suggests alternate methodology for computation of various indicators for SDGs.
  - iv. Presents Ministry's consolidated proposals in High Level Committee of MoSPI (HLSC) for SDG indicator refinement.
  - v. Provides technical support for metadata and refinement of indicators.
  - vi. The following work was undertaken in respect of the National Indicator framework of the SDGs-
    - a. Finalised two new indicators for the SDG NIF namely, 13.2.3: "Percentage of Industries complying with Environmental Standards" for which the data source is CPCB and 15.2.2 "Percentage change in carbon stock in forest cover" for which the data source is FSI. These indicators are mentioned in SDF NIF 2024 progress report.
    - b. For the 2025 comprehensive review proposal for SDG indicators, inputs were provided with respect to two Indicator:
      - 15.2.1 "Progress towards sustainable forest management" of Czech Forest Management
      - 15.9.1 (a) "Number of countries that have established national targets in accordance with or similar to Aichi Biodiversity Target 2 of the Strategic Plan for Biodiversity 2011–2020 in their national biodiversity strategy and action plans and the progress reported towards these targets" of Turkish Statistical Institute.
  - vii. India has shown reduction of 36% in Emission intensity of GDP between 2005 and 2020 as per fourth Biennial Update Report submitted by India to UNFCCC. The corresponding NIF is SDG 13.2.1: Pre 2020 action: Achievement of pre-2020 goals as per country priority (percentage reduction in emission intensity of GDP, over 2005 level)

Achievement of pre-2020 goals  
India achieved reduction in Emission  
Intensity  
of GDP over 2005 level



## II. Activities undertaken in respect of Environmental Statistics :

- i. To liaise with all divisions of MoEF&CC and, where necessary, its subordinate offices and autonomous institutions to strengthen the process of collection, validation processing and interpretation of statistical data.
- ii. Coordinates with the Ministry of Statistics and Programme Implementation (MoSPI) to provide technical inputs on development of Official Statistics in line with Framework of Development in Environmental Statistics (FDES).
- iii. The division supported the MoSPI for publication of 'EnviStats' I publications on Environment Statistics. Statistics Division coordinated with the Divisions to provide inputs on behalf of the Ministry for the publication on data related to forests, climate change, wild life and pollution for the publication of EnviStats-India 2024; Volume I. The publication consists of six distinct chapters viz. Environmental Conditions and Quality, Environmental Resources and their Use, Residuals, Extreme Events and Disasters, Human Settlements and Environmental health, and Environmental Protection, Management and Engagement.

## III. Activities pertaining to Environmental Accounting :

- a) The division is also responsible for coordina-

tion as regards developments in Natural Capital Accounting and the SEEA (System of Environmental Economic Accounting) and Ecosystem Accounting within MoEFCC and with other Ministries and UN

- b) The division supported the Ministry of Statistics and Programme Implementation (MoSPI) in providing data and information for Environment Accounts.
- c) Expert group on Ocean Ecosystem Accounts in India was constituted by MoSPI for compilation of Ocean Ecosystem Accounting. Division provides comments and attends meeting for compilation of the Ocean Ecosystem Accounts of India.

#### **IV. Global Indices for Reforms and Growth Dashboard related Work of EPI and CCPI :**

In reference to the ongoing activities under the directions of Cabinet Secretariat and NITI Aayog on various global indices in the Government of India, Ministry of Environment, Forest and Climate Change has been designated as the nodal Ministry for Environment Performance Index (EPI) and Climate Change Performance Index (CCPI).

Analysis of global data sets being used for EPI and CCPI was undertaken and Indian data sources being used for these datasets were examined in terms of their linkages to Indian data sets, time lag of publication and data transformations undertaken on them. Data discrepancies and methodological flaws were examined in depth.

#### **V. Data Governance Quality Index :**

Data Governance Quality Index (DGQI) is built by Development Monitoring & Evaluation Office (DMEO) for ranking the Ministries on the basis of level digitization, security, quality and sound use of data generated and handled under

Central Sector Schemes, Centrally Sponsored Schemes and Non Scheme Interventions. The score of the ministry has improved to 4.50 in the fourth quarter of 2023-24 from 3.08 during 2021-22 through several quarters.

#### **VI. Data Governance and Management :**

The Division functions as the nodal authority for data governance and data management within the Ministry of Environment, Forest and Climate Change (MoEFCC). It coordinates and oversees matters relating to standardisation, quality assurance, documentation, dissemination, and compliance with national data policies and frameworks, in alignment with the guidelines issued by the Ministry of Statistics and Programme Implementation (MoSPI).

#### **11.7 Sectoral Group of Secretaries - Resources (SGoS-3) and Viksit Bharat**

The Sectoral Group of Secretaries – Resources (SGSR) Cell functions as the nodal coordination mechanism within the Ministry for matters pertaining to the Sectoral Group of Secretaries on Resources (SGoS-3). The Cell facilitates close coordination with all concerned Divisions of the Ministry as well as with the relevant Ministries/ Departments represented in SGoS-3 for the formulation, consolidation and finalization of sector-specific goals and targets under Vision @ 2047. In this role, the SGSR Cell ensures alignment of the Ministry's long-term strategic priorities with the national vision for sustainable development, efficient resource management and environmental stewardship.

The Cell also enables systematic and regular monitoring of the Key Performance Indicators (KPIs) of the Ministry, which have been derived from the recommendations of SGoS-3. It undertakes periodic review of progress against these KPIs, facilitates inter-divisional consultations to address gaps and supports evidence-based reporting to ensure

timely achievement of the identified milestones.

In addition, the SGSR Cell acts as the nodal point of coordination with NITI Aayog on matters relating to the High Level Committee on Viksit Bharat (HLC-VB). It ensures timely submission of inputs, progress reports and policy feedback from the Ministry, and supports coherence between the Ministry's initiatives and the broader national agenda for achieving the goal of a Viksit Bharat.

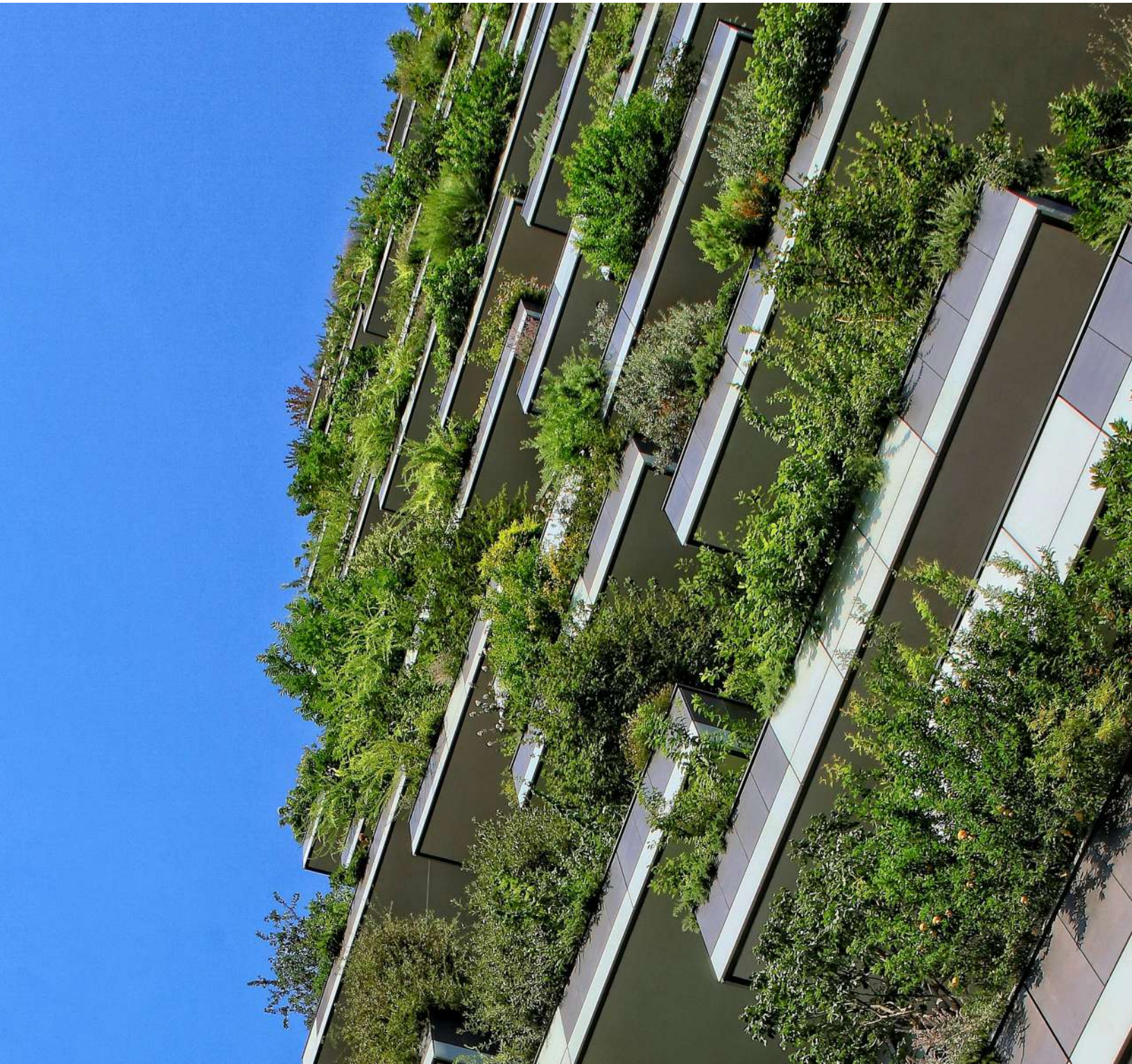
### **11.8 Non-Governmental Organization (NGO) Cell**

A Non-Governmental Organization (NGO) Cell is functioning in the Ministry to deal with policy-related matters concerning NGOs working in various fields of environment and allied sectors. The Cell does not directly disburse funds to NGOs; financial assistance is released by the respective Scheme Divisions of the Ministry. The primary role of the Cell is to act as a nodal point for liaison with NITI Aayog, Programme Divisions of the Ministry, and other Government Ministries on guidelines, directions, and policy issues relating to NGOs.

In accordance with the communication received from NITI Aayog and in alignment with the DARPAN 2.0 framework, a dedicated web-based NGO Portal is being developed for the Ministry to serve as a single-window platform for all NGO-related activities undertaken by various Divisions of the Ministry.

# Chapter 12

## ADMINISTRATION AND CIVIL CONSTRUCTION



## 12.1 Administration

### Administration (P-I):

#### a. Introduction and objectives

- Cadre Management of Scientific posts of the Ministry and Regional Offices and its Sub-offices, creation of Scientific posts of Ministry. Establishment / service matters of all Scientific posts of the Ministry (HQ) and Regional Offices and its Sub-offices viz. appointment, promotion, work allocation, court cases, leave and retirement benefits (those posted in Ministry, HQ). Creation and continuation of scientific posts of the Ministry.
  - Cadre Management of Technical posts of the Ministry and Regional Offices and its Sub-offices, creation of Technical posts of Ministry. Establishment/service matters of all Technical posts of the Ministry (HQ) and Regional Offices and its Sub-offices viz. appointment, promotion, work allocation, court cases, leave and retirement benefits (those posted in Ministry, HQ).
  - Recruitment and Framing of Recruitment Rules of Technical posts of the Ministry.
  - Cadre management of Canteen Staff of the Ministry viz. appointment, promotion, establishment /service matters, court cases, leave and retirement benefits etc.
  - Disciplinary proceedings of Group 'A', 'B' and 'C' Officers / Officials on the cadre strength of P.I Section.
  - Maintenance of ACRs / APARs of Group 'A', 'B' and 'C' Officers / Officials of MoEF&CC, other than IFS Officers of the Ministry.
  - Processing of LTC, GPF, House Building Advance, Computer Advances of Officers / Officials of MoEF&CC, other than IFS Officers of the Ministry.
  - Processing of FTP and issue of Foreign Deputation Orders in respect of Environment Wing of the Ministry.
  - Processing of Medical Advance and reimbursement cases of Scientific, Technical and Canteen staff.
  - Internship Scheme of Ministry of Environment, Forest and Climate Change.
  - Review of services under FR 56(j) and other similar provisions of Officers/Officials, other than IFS Officers of the Ministry. Compilation of FR 56(j) related data and sending it to IFS Division for uploading on the Probity portal.
  - Updation of data on the Representation of Reserved Categories in Posts and Services of Government of India (RRCPS) Portal.
  - Budget matters related to Secretariat head other than those handled by GA Section.
- #### b. Important activities undertaken
- During the period, the major activities undertaken by Administration division are as under:
- Appointment of 06 Scientists in various grades on direct recruitment basis.
  - Recruitment of 01 Research Assistant (Environment) on direct recruitment basis.
  - Requisition for recruitment of 02 Research Assistants (Environment), 02 Research Investigators (Forestry) and 01 Technical Assistant (Wildlife) sent to SSC.
  - Requisition for recruitment of 03 Technical Officer (Forestry) Gr.II on DR basis submitted to UPSC.
  - Monitoring and timely disposal of RTI applications and PG portal cases received during the period.
  - Timely processing of retirement benefits.
    1. Internship Scheme for Winter Session 2024-25 and Summer Session 2025 has been implemented.
    2. Promotion of 02 Officials in the Technical Cadre of MoEF&CC.
    3. APAR in respect of Technical Staff undertaken online through Sparrow Portal.
    4. Processing of GPF, LTC, Medical Bills etc. started through e-HRMS.
- #### c. Data on representation of SC, ST, OBC and others in Government posts and

**services:**

i. Representation data in posts and services in respect of SC, ST, OBC, EWS and PwDs (as on 01.01.2026):

SC	ST	OBC	EWS	PwDs	Others	Total
25	11	40	3	4	73 (excluding PwDs)	156

The data for Backlog reserved vacancies is as follows:

- SC-02 (Promotion), EWS-01 (DR), PwDs-03 (DR), OBC-01 (DR). Only 01 backlog vacancy for EWS was filled up during 2025. The remaining vacancies could not be filled up due to non-availability of eligible candidates.

iii. Details of Liaison Officers:

- Appointment of Liaison Officers for SC/ST/ Ex-Servicemen/EWS/PwDs & OBCs have been done.

iv. Details of the Reservation Cell:

Special Reservation Cell was constituted vide Office Order No. A-14011/2/2013-P.I dated 01.07.2024.

**Administration (P-II):**

- Cadre management of CSSS/CSS/CSCS, Central Staffing Scheme, Indian Economic Service and Indian Statistical Service officers.
- All Establishment / Service matters of `Secretariat Group 'A', 'B' and 'C' posts, including Official Language Staff (except officers working on the strength of Indian Forest Service Division and National Afforestation Eco Development Board) including appointment, transfer / posting, review cases, disciplinary proceedings, leave cases, retirement and retirement benefits, medical claims, tuition fee reimbursement, leave encashment, children education allowance, court cases, etc.
- Framing / amendment of Recruitment Rules

ii. Backlog reserved vacancies filled up during the year and remaining unfilled along with reasons:

and Recruitment of non-technical ex-cadre posts, viz. Staff Car Driver, Protocol Officer and MTS of the Ministry.

- Training Programme of All India Services (except IFS cadre) and all Secretariat officers.
- Matters relating to Minister's staff.
- Outsourcing of staff.
- Deployment of personnel for Election-related work.
- Work allocation among all officers / staff other than Scientific, Technical and IFS officers.
- Nodal Division of MoEF&CC for e-HRMS.
- Generation of AVMS Certificate on SUPREMO Portal.
- Review and monitoring regarding filling up of vacancies under Mission Recruitment.
- Processing of Pension cases and disbursement of retirement benefits of All India Services and Secretariat officers.
- Work relating to Mission Karmayogi.
- Matters related to Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act, 2013.

**Administration (P-III):****a. Introduction**

Following the re-organisation of the scientific Departments / Ministries during 1986 and the consequent de-linking of the Group 'A' scientific posts from the purview of the UPSC and the introduction of Flexible Complementing Scheme (FCS), P-III Section was specifically created in the Ministry to

function as a separate, distinct, centralized and confidential unit for the purpose of recruitment to (through Direct Recruitment / Deputation) as well as promotion under FCS in the Group 'A' Scientific posts for the Ministry including its Regional Offices and the Subordinate Offices having such posts in their organisations.

### Objectives

- i. Recruitment to all Group 'A' Scientific Posts of the Ministry including its Regional Offices and Subordinate Offices as per Ministry of Environment, Forest and Climate Change Scientific Group 'A' posts Rules, 2015.
- ii. Review/assessment of Group 'A' Scientists for promotion under Flexible Complementing Scheme (FCS) as per Ministry of Environment, Forest and Climate Change Scientific Group 'A' posts Rules, 2015.
- iii. Amendment/interpretation of the Ministry of Environment, Forest and Climate Change Scientific Group 'A' posts Rules, 2015.

### b. Activities undertaken

#### (A) Recruitment

An advertisement was published in March 2025 for filling 33 posts of Scientists on direct recruitment basis in the Ministry of Environment, Forest and Climate Change (MoEF&CC), including its subordinate offices. Out of these, 01 post of Scientist 'G' (Director-BSI) has already been filled after obtaining ACC approval. Another advertisement for filling some more posts in MoEF&CC is under process for publication.

#### (B) Promotion

As per advice of the DoP&T vide their OM dated 13.03.2024, Revised Flexible Complementing Scheme (RFCS) shall replace the Modified Flexible Complementing Scheme w.e.f. 01.07.2024, all Scientific Ministries/Departments presently implementing MFCS shall initiate action for incorporating the provisions of the Revised FCS by amending

the provisions of relevant recruitment rules so that RRs are brought in conformity with the provisions of the Revised FCS.

### (C) Other Important Activities

Nomination of Experts / External Members from MoEF&CC in various Assessment Committees/ Boards of other Scientific Ministries / Departments constituted for considering promotion/upgradation/direct recruitment in respect of Scientific Posts in their organization.

## 12.2 Indian Forest Service (IFS) Division

Mandate:

- Ministry of Environment Forest and Climate Change is the Cadre Controlling Authority for the Indian Forest Service.
- IFS division deals with all cadre Management related matters of the service.
- The total authorized cadre strength of the Indian Forest Service as on 1st January, 2025 is 3193 (Three thousand one hundred ninety-three) which includes 2242 (Two thousand two hundred and forty-two) Direct Recruits and 951 (Nine hundred and fifty-one) Promotion posts. The total Senior Duty Posts (SDP) in the Indian Forest Service are 1960 (One thousand nine hundred and sixty) and remaining under various reserves. Besides serving the 36 Forest Departments in the States and Union Territories managing the country's natural resources, a large number of the IFS officers are posted on deputation in various Ministries and institutions both in the States and at the Centre.

### Activities of IFS Division:

- Appointment of Direct Recruit Indian Forest Service Officers recommended by Union Public Service Commission.
- Determination of vacancies and framing of rules for Direct Recruitment through Union Public Service Commission and allocation of

cadres to IFS probationers.

- Determination of vacancies for induction of State Forest Service Officers by promotion into Indian Forest Service, Coordination of Selection Committee Meetings, Notification of Select List and year of allotment to officers inducted in Indian Forest Service.
- Review of cadre and revision in the composition and strength of IFS in various cadres.
- Selection/ appointment of IFS officers to various posts under Central Staffing Scheme of the Ministry and cadre clearance for appointment to various autonomous bodies including Indian Council of Forestry Research & Education, Dehradun, Indian Institute of Forests Management, Bhopal and Wildlife Institute of India, Dehradun etc.
- Facilitation of Selection / Appointment of IFS officers against the Central Staffing Scheme of Department of Personnel & Training (DoP&T).
- Finalization of various service matters like inter-cadre transfers, Inter cadre deputation, Cadre clearance for placements/ training and post-retirement benefits to the officers.
- Management of AGMUT cadre including promotions, transfers, postings and other service matters.
- Publication of Civil List of IFS Officers.
- Confirmation of IFS officers in Service.

### Achievements:

1. Vacancies for induction of State Forest Service (SFS) officers into Indian Forest Service (IFS) have been determined in respect of 24 cadres.
2. Walking and Medical Test of 148 candidates recommended by Union Public Service Commission (UPSC) in Indian Forest Service Examination, 2024 was convened and the offer of appointment were issued to 140 candidates.
3. Cadre Review of Indian Forest Service for the states of Uttar Pradesh, Rajasthan, Chhattisgarh and Nagaland has been notified in 2025. Cadre review proposal for the States of Madhya Pradesh and Tripura is under submission to DoPT for notification. Cadre Review of other States are under consideration in consultation with the State Government(s)/ DoPT.
4. Two Meetings of Joint Cadre Authority (JCA) of Arunachal Pradesh-Goa-Mizoram and Union Territory (AGMUT) have been organized in 2025.
5. Vacancy Circular for filling up posts at AIGF, DIGF, IGF, DDGF, ADGF and DGF were released on time. The Vacancy Circular for filling up the posts at AIGF, DIGF, IGF, DDGF and ADGF level were released twice. 34 IFS officers has been selected at various levels under the Central Staffing Scheme of the Ministry in the year 2025.
6. The proposal for revising guidelines of CSS-MoEF&CC Scheme is under process. The empanelment guidelines under CSS-MoEF&CC Scheme have been sent to DOPT for approval of ACC.
7. APAR in respect of IFS Officers on Central Deputation has been generated in Smart Performance Appraisal Report Recording Online Window (SPARROW).
8. Up-to-date Civil List of IFS officers as on 01.01.2025 was published.

### 12.3 Vigilance Section

- Disciplinary proceedings (involving vigilance angle) against all serving and retired IFS officers of AGMUT Cadre and other Officers and officials under the MoEF&CC.
- Examination and Processing of cases of imposition of major penalties of dismissal/ compulsory removal etc. (involving vigilance angle) on IFS officers referred to by State Governments.
- Appeals (including appeals against suspension)/Review preferred by officers/ officials under the MoEF&CC including all IFS officers.
- Conducting and appointing of Inquiry Officer

- (I.O.) and Presenting Officer (P.O.) for Preliminary Information and Inquiry.
- Handling of vigilance complaints regarding misconduct of Officers and officials (including all IFS officers) under MoEF&CC received from the General Public/Organizations/Central Vigilance Commission (CVC/CVC portal)/PMO's office etc. During the period 01.01.2025 to 03.11.2025, 107 complaints (Approx.) were received and examined from CVC/CVC portal/ directly in the Ministry and 116 complaints were closed/filed/forwarded including old complaints.
- Sanction of Prosecution including those under the Prevention of Corruption Act (PC Act), 1988 against IFS Officers and Officers/officials serving/retired from service under the MoEF&CC. Two cases of sanction for prosecution were considered/processed and out of which one was granted sanction for prosecution and another denied during the period.
- Interaction with Central Bureau of Investigation (CBI) in various matters and facilitate obtaining the information/documents from various Divisions of the Ministry.
- Identification of Sensitive Posts and to ensure periodical rotation of staff holding such sensitive posts. Administration Division is regularly asked to carry out rotation of staff holding sensitive posts.
- Receipt and Scrutiny of Annual Immovable Property Returns (AIPRs) of all officers and officials (including IFS officers) of MoEF&CC.
- According clearance from vigilance angle in respect of officers and officials of the Ministry. 1007 vigilance clearance were accorded during the period.
- All Court cases having vigilance angle.
- Permission/Intimation of Movable/Immovable property under Conduct Rules, 1964 and All India Service (Conduct) Rules, 1968.

- Preventive Measures to check corruption.
- Organizing Vigilance Awareness Week as per CVC directions.

Vigilance Awareness Week was observed this year in the Ministry from 27th October to 2nd November, 2025 and Secretary, MoEF&CC administered the pledge to the officers/officials of the Ministry on 27.10.2025 . A Poster Making Competition on the theme “Vigilance: Our Shared Responsibility,” and a Quiz Competition was held on 29.10.2025. An extempore competition was held on 31.10.2025. Winners of the competitions were awarded with Letters of Appreciation and cash prizes through e-payment.



**(The Secretary, MoEF&CC administering the pledge on 27.10.2025 during Vigilance Awareness Week 2025)**



**(All officials and staff members of the MoEF&CC took the oath on Vigilance Awareness Week 2025.)**

## 12.4 Parliament Section

### a. Introduction:

The Parliament Division is responsible for co-ordination of all Parliament matters related to the Ministry of Environment, Forest and Climate Change (MoEF&CC).

### b. Parliament Questions:

During the year 2025, at the end of the 269th Session of Rajya Sabha and 6th Session of 18th Lok Sabha on 19th December, 2025, 824 Parliament Questions were answered by the Ministry pertaining to the functioning of the Ministry. In the Rajya Sabha, a total of 415 Questions were replied to, out

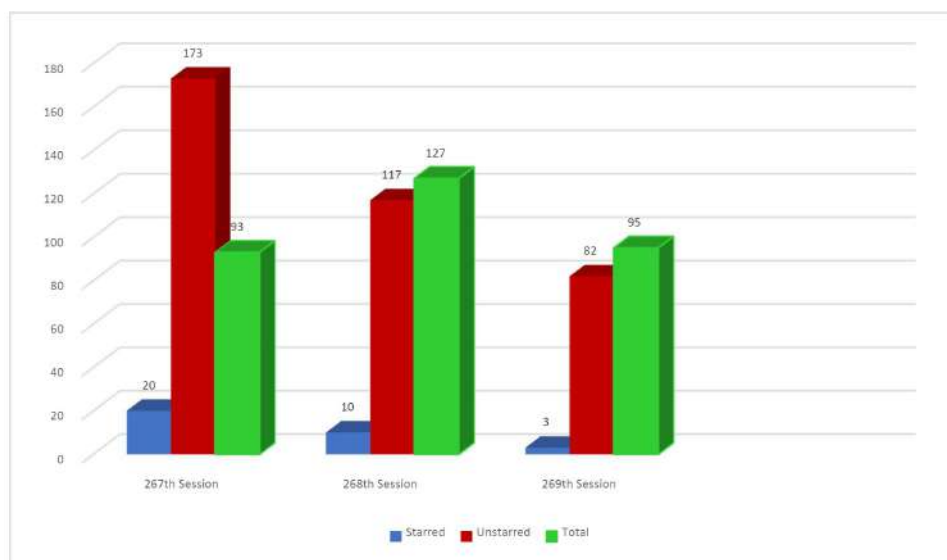
of which 43 were Starred and 372 were Unstarred. In the Lok Sabha, 409 Questions were replied to, out of which 27 were Starred and 382 were Unstarred.

The Questions covered a wide range of issues with which this Ministry is concerned with and prominent among them were the Questions relating to Control of Pollution, Climate Change, Wildlife, Forest Conservation, Waste Management, Environmental Impact Assessment, Biodiversity, Wetlands etc.

Graphical Representation of the Parliament Questions replied by the Ministry in 2025, at the end of 269th Session of Rajya Sabha and 6th Session of

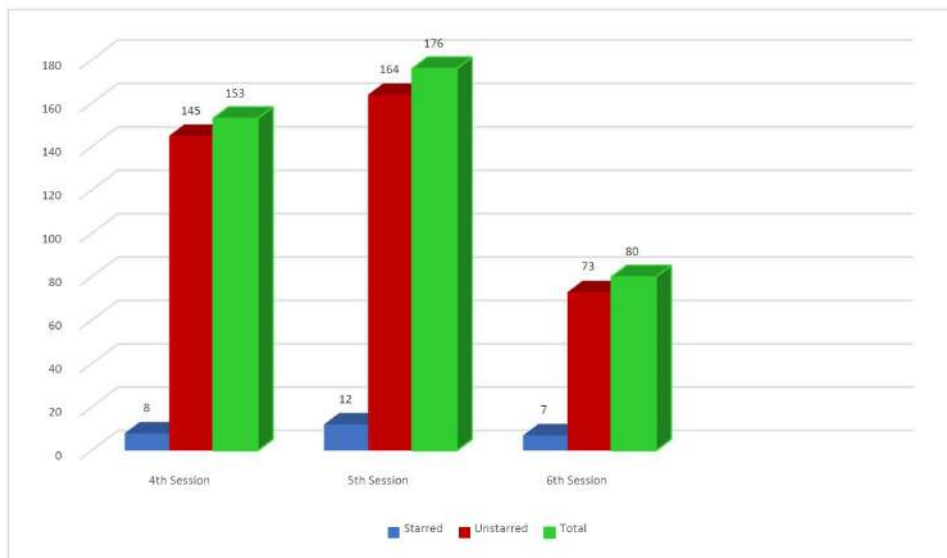
#### (i) Rajya Sabha

Question	267 <sup>th</sup> Session	268 <sup>th</sup> Session	269 <sup>th</sup> Session	Grand Total
Starred	20	10	13	43
Unstarred	173	117	82	372
Total	193	127	95	415



## (ii) Lok Sabha

Question	4 <sup>th</sup> Session	5 <sup>th</sup> Session	6 <sup>th</sup> Session	Grand Total
Starred	8	12	7	27
Unstarred	145	164	73	382
Total	153	176	80	409



Lok Sabha is given below’:

Authority (CAMPA) Matters’ and Human Animal Conflict.

### c. Parliamentary Standing Committee and Consultative Committee Meetings:

Parliament Division, during the year 2025, has coordinated four meetings of the Department related Parliamentary Standing Committee on Science & Technology, Environment, Forest & Climate Change on Demands for Grants (2025-26), Water Pollution in Delhi-NCR and steps taken by various agencies for its mitigation (2 meetigs) and Air Pollution in Delhi-NCR and steps taken by various agencies for its mitigation.

Two meetings of Consultative Committee of the Ministry were held on ‘Compensatory Afforestation Fund Management and Planning

## 12.5 Information Technology and e-Governance

### a. Introduction, objectives and functions

Government working is based on intensive knowledge and information sharing. Effective communication and sound Information and Communication Technology (ICT) go hand in hand. For speedy implementation and monitoring of various programmes / schemes and to make most of ICT to secure efficiency in working, Ministry has embarked upon a comprehensive exercise to implement various e-Governance activities / projects.



## b. Important activities

- Implementation of e-Office in the Ministry and its attached/sub-ordinate offices.
- Establishment of LAN/WAN.
- Strengthening of IT infrastructure.
- Management of Cyber Security.
- Management of SPARROW for all officers including Scientists.
- Implementation of PARIVESH 2.0.
- Implementation of online consent management.

## c. Activities undertaken on Information Technology:

### i. Trainings provided by IT Division:

- Provided training for Reskilling / upskilling of the existing support Staff under the Increasing Efficiency in Decision making in Government' programme.
- Provided online and offline training on e-Office to Botanical Survey of India (BSI), Prayagraj; Indian Council of Forestry Research & Education (ICFRE), Dehradun and Indian Institute of Forest Management (IIFM), Bhopal.

### ii. Facilitation in Meetings:

- Providing technical assistance for organizing Video Conferencing (VC) including EAC meetings.
- Creation of Meeting IDs and moderated Video Conferencing System.

### iii. Measures taken for ensuring Cyber Security:

- Implemented network security tool SentinelOne EDR and Unified Endpoint Management (UEM), as cyber security preparedness in the Ministry. The installation of UEM will ensure (i) Endpoint hardware and software inventory, (ii) Operating System patch updates, (iii) 3rd Party Software – Install, Update & Removal, (iv) Vulnerability Assessment, (v) Endpoint Policy Management and (vi) Endpoint Scripting.
- Collated 219 websites / portals registered under the Ministry in which 32 Domains were deactivated and 7 Domains were transferred to the concerned Ministries / Departments.
- Prepared Draft Cyber Crisis Management Plan (CCMP) for the Ministry.

### iv. IT Services

- Provided Technical Advisory for renovation of Conference halls and tested all IT related equipment after commissioning.
- VPN Access provided to e-Office users in the Ministry and its Sub-ordinate offices to access from the Non-NIC ISPs.
- Digital Signature Certificate (DSC) made for 120 officers.
- Created email IDs in @gov.in domain for all the users of eOffice.
- Implemented and managed the Biometric Attendance System (BAS).
- IT infrastructure of the Ministry was strengthened.
- Examination of all policy issues pertaining to Information Technology.

### v. Management of Websites and Portals

- Revamped the Website of the Ministry and managed continuously.
- Obtained STQC Certification for the website of the Ministry, as per Guidelines for Indian Government Websites 3.0
- Management of Online Stationery Request Management System for submitting the request for stationery.
- Management of Smart Performance Ap-

praisal Report Recording Online Window (SPARROW) for online submission of APAR of IAS, IES, ISS, IPS, CSS, CSSS Officers and Scientists in the Ministry.

- Management of Internship, e-Samiksha, PRAYAS, Swagatam and various other portals in the Ministry.
- Assisted for development of MeriLiFE Website and also provided online training on MeriLiFE Portal to all Nodal Ministries, Central and State Government Departments, Schools and other organisations and General Public for uploading the Tree Plantation details under 'Ek Ped Maa Ke Naam'.

#### d. Activities undertaken on

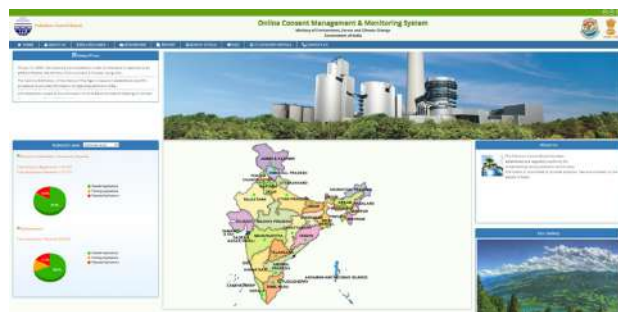
##### e-Governance:

##### i. Implementation of e-Office:

- Registered 4734 users in e-Office portal. Uploaded Promotion, Posting Order, Work allocation, Workflow, regular update in Notice Board.
- Implemented e-Office in Forest Survey of India (FSI) Sub-Office at Shimla and provided offline/Online training.

##### ii. Online Consent Management & Monitoring System:

- Online Consent Management & Monitoring System (OCMMS) developed for State Pollution Control Boards (SPCBs) / Pollution Control Committees (PCCs) to automate the existing workflow, which allows the industries for the online submission of application for Consent to Establish (CTE) / Consent to Operate (CTO), authorization for various categories of Industries / Institutions / Hotels / Hospitals. This system helps the officials of SPCB for online processing of industries application for CTE / CTO, Authorization as well as monitoring of various activities of SPCBs/PCCs.

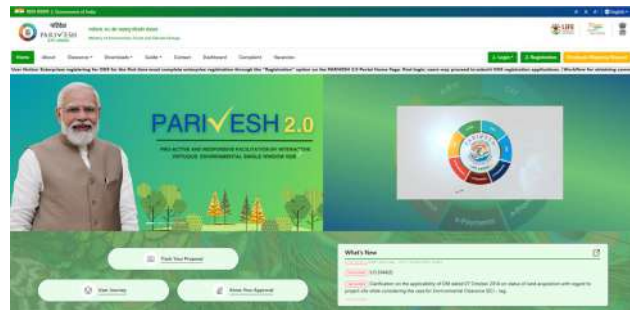


- Online Consent Management & Monitoring System (OCMMS) has been implemented in various States / UTs viz. Arunachal Pradesh, Andhra Pradesh, Bihar, Chhattisgarh, Chandigarh, Daman & Diu, Haryana, Jharkhand, Jammu & Kashmir, Kerala, Meghalaya, Odisha, Punjab, Puducherry, Telangana, Tripura, Tamil Nadu, Uttar Pradesh, Sikkim, Delhi, Goa, Himachal Pradesh, Assam, Uttarakhand, West Bengal, Andaman & Nicobar, Ladakh and Lakshadweep. Integrated in the home page for Gujarat, Rajasthan, Karnataka, Maharashtra and Madhya Pradesh with open API and hyperlink of these States in the map are also provided.
- The OCMMS is integrated with DIPP / State Government Single Window System in respect of various States viz. Andhra Pradesh, Assam, Chhattisgarh, Chandigarh, Delhi, Haryana, Himachal Pradesh, Goa, Jammu & Kashmir, Jharkhand, Kerala, Odisha, Puducherry, Punjab, Tamil Nadu, Telangana, Uttarakhand, Uttar Pradesh, Tripura and West Bengal. The mobile version of OCMMS is implemented in Fourteen (14) States viz. Andhra Pradesh, Assam, Bihar, Chandigarh, Delhi, Haryana, Jharkhand, Kerala, Punjab, Tamil Nadu, Chhattisgarh, J&K, Assam and Himachal Pradesh. The mobile app for Public Grievance System has been developed for the 5 States/UTs of Bihar, Chandigarh, Delhi, Jharkhand and Punjab.

### iii. PARIVESH

#### a) About PARIVESH:

- Pursuant to the spirit of ‘Digital India’ initiative led by the Hon’ble Prime Minister of India and capturing the essence of Minimum Government and Maximum Governance, a Single-Window Integrated Environmental Management System named PARIVESH (Pro-Active and Responsive facilitation by Interactive, Virtuous and Environmental Single window Hub) has been launched by the Ministry in August, 2018.
- Based on the concept of web architecture, a workflow based application has been rolled out for online submission, monitoring and management of proposals submitted by Project Proponents to the Ministry of Environment, Forest and Climate Change (MOEFCC), Government of India as well as to the State Level Environmental Impact Assessment Authorities (SEIAA) to seek various types of clearances (e.g. Environment, Forest, Wildlife and Coastal Regulation Zone Clearances) from Central, State and district-level authorities. It automates the entire process of submitting the application and tracking the status of such proposals at each stage of the processing. This system has been designed, developed and hosted on cloud environment by NIC, New Delhi.
- This web-based application is unique amongst all such portals of regulatory agencies. This initiative will bring the Ministry closer to the industry and citizens alike. After the introduction of e-communication in the first phase, this is the second phase of reforms towards e-Governance in its real spirit.
- Enhancements and revamp of PARIVESH, to meet the evolving needs of the Ministry and the stakeholders has been in progress.



#### b) Objectives of PARIVESH:

- Enhance efficiency, transparency, and accountability in the Environment, Forest, Wildlife and CRZ clearance processes.
- Sound and informed decision-making.
- Enhance responsiveness through workflows automation.
- Real time information about the status of applications with alerts at each of the stages through SMS and email.
- Efficient and expeditious processing and decision-making leading to reduction in turnaround time.
- Standardization in processing and decision-making across the states / UTs
- Enhance ease and convenience of citizens and businesses in accessing information and services.
- Real-time monitoring and adherence to timelines for verification.
- User-friendly and environmentally sustainable application processes.
- Improve environmental monitoring and compliance.
- Leading to the era of Mobile Governance with maximum transparency.

#### c) Benefits

##### (i) For Project Proponent/User Agency:

- Single registration using NSDL PAN services and single sign-in for all types of clearances (i.e. Environment, Forest, Wildlife and CRZ).
- KYC Authentication for Existing propo-

nent.

- Unique-id for all types of clearances required for a particular project.
  - Single Window interface for the proponent to submit applications for getting all types of clearances (i.e. Environment, Forests, Wildlife and CRZ clearances).
  - Help the user to apply, view, track, interact and respond to the queries through web-based system.
  - Facility to download the e-signed approval letter.
  - Supplemented by mobile app “PARIVESH” for Android and iOS based smart phones. The status of the application, replies to queries, agenda & minutes of meetings, approval letters can also be accessed/ downloaded anytime on a smart phone through this App.
  - Dashboard for accessing various analytical reports including charts/ graphs indicating pendency of information, time taken by processing authorities at each level, etc.
  - SMS and email alerts at all levels of application processing.
  - Facility for uploading the compliance reports for clearances. Facility for uploading of geo-tagged images on GIS maps.
  - Alerts through SMS and emails in case of non-compliances. This will help ensuring timely compliance of clearance conditions.
  - Improved public image through improved environmental compliances.
  - Form Rationalization - Elimination of duplicate and erroneous entries and Reduce effort for validation of same information at multiple points.
  - 'Know Your Approval' and DSS module has been launched.
  - Standardization of Agenda & MoM templates - Time reduction in Agenda & MoM finalization and thus in clearance.
  - Change in registration process of applicants
- Ability to map multiple projects to a unique business entity.
  - Enhancement has been done in all Forms.
  - Integration of PARIVESH with NSWS is in progress.
- (ii) For Processing Authorities:
- A Single Window System for Central, State and District level clearances.
  - Auto generation of agenda (based on first come first served principle), minutes of the meetings and online generation of approval letters through digital signatures/e-Sign by competent authorities resulting in ease and uniformity in processing of clearance applications.
  - Accessing of information about the pendency and timeline fulfilments of various applications under consideration.
  - Online submission and monitoring of compliance reports including geo-tagged images of the site by regulatory body / inspecting officers even through the Mobile App for enhanced compliance monitoring.
  - Integration with single window clearance systems launched by DIPP and various other state governments.
  - Processing of files through mobile app for expeditious decision-making.
  - Geographic Information System (GIS) interface for the Appraisal Committee, to help them in analysing the proposal efficiently.
  - Dashboard for providing various analytical reports. Help in self-assessment and improved performance.
  - Efficient and real time review of pendency by higher authorities with facility to review the performance of the processing officers.
  - Automatic alerts (via SMS and emails) at important stages to the concerned officers, committee members and higher authorities to check the delays, if any.
  - Automatic alerts in case of non-compliances for clearance conditions – would re-

sult into enhanced compliance leading to sustainable development

- Improved public image – from merely a regulator to more of a facilitator.
- Enhanced system generated Agenda for EC has been developed and made live.
- New authority process workflow for FC has been made.

(iii) For Citizens:

- Enhance ease and convenience of citizens and businesses in accessing information and services
- Availability of details of each project in public domain
- Access to various technical and impact assessment reports, approval letters, etc. through web portal as well as through mobile app
- Timeline for each stage is available in the public domain to bring in transparency and accountability in the system
- Data base sharing will facilitate in research and development activities
- Improved compliance, better environmental quality
- Integration with Green Skill Development Programme-search engine for Green jobs
- Know Your Approval (KYA) & Decision Support System (DSS) module to get better understanding of approvals required

d) Modules of PARIVESH:

- Online Registration of Proponent/User Agency
- Workflow / file processing and approval management
- E-File Noting
- Alerts & Notification (SMS and email)
- GIS based Appraisal and Geo-tagging
- Compliance Monitoring for project proponents and regulatory authorities
- Analytical Reports
- Online Agenda Management
- Online Minutes of Meeting

- Query Module for Essential/Additional Details Sought (EDS/ADS).
- Generation of Approval letters for TOR/EC/FC/Wildlife/CRZ clearances
- Dashboard for project proponents, processing authorities and citizens
- E-Green skilled jobs
- Audit Trail
- FAQ
- KYA & DSS.

## 12.6 Right to Information Cell (RTI)

As per RTI-MIS Portal, the Ministry received 4615 RTI applications and 374 RTI Appeals under the RTI Act, 2005 during the year 2025. The RTI Applications and RTI Appeals were disposed of as per the provisions of the RTI Act, 2005.

The Central Public Information Officers (CPIOs) and First Appellate Authorities (FAAs) were designated for effective implementation of the RTI Act, 2005. Designating the CPIOs/FAAs are revised periodically in case of changes in the allocation of work among CPIOs/FAAs. All the Subordinate Offices / Autonomous Bodies also undertake periodical revision of the list of designated CPIOs/FAAs.

Both online and offline applications / appeals that are received in the Ministry as well as on the designated counter at the Ministry are regularly updated and uplinked and forwarded to the respective CPIO/FAA based on the subject matter.

As per Section 4 of RTI Act, 2005, Suo-motu information with respect to the Ministry are updated / uploaded on the website of the Ministry.

Directions from the Central Information Commission (CIC) and the Nodal Ministry / Department i.e. Department of Personnel and Training are also circulated to the CPIOs/FAAs for guidance to implement the RTI Act.

As an institutional mechanism to oversee the implementation of RTI Act, 2005, the status of RTI Applications and appeals is regularly reviewed in the Senior Officers' Meetings.

## 12.7 General Administration (GA) Section

### a. Introduction

The General Administration (GA) Division of the Ministry is entrusted with the responsibility of providing logistics and support services to senior officers and staff for discharging their duties and smooth functioning of the Office. It includes procurement and supply of stationery, maintaining stores, disposal of obsolete materials, equipment, support services to the officials of the Ministry including provision of transport, communication and general upkeep etc. The Ministry is functioning from Indira Paryavaran Bhawan since 2014 and has obtained LEED India Platinum and GRIHA-5 Star Green Building rating.

### b. Activities Undertaken

Special Swachhta Campaign 5.0 was observed from 2nd October, 2025 to 31st October, 2025.

1. Cleanliness of Indira Paryavaran Bhawan (IPB) Premises  
Cleaning of entire premises, including white-wash/ paint, was carried out across IPB. Separate bins for dry and wet waste were installed on each floor.
2. E-Auction for Disposal of Obsolete/ Unserviceable Items
  - Disposable of obsolete/unserviceable items and E-waste was done through E-auction by Metal Scrap Trade Corporation (MSTC), Ministry of Steel.
  - E-waste items were disposed of through MSTC by CPCB registered recycler.
  - Three staff cars and one auto were also E-auctioned through MSTC.

- Revenue earned through E-auction was ₹11.54 lakh.
  - Total space freed after E-auction was 1180 sq. ft.
3. Innovative Works
    - Scanning facilities were provided for all Divisions to digitize maps, files, and records.
    - Shredding machines were installed for safe disposal of weeded-out documents.
    - E-waste bins were installed in each block.
    - A vermi-composting pit made functional to convert organic waste (dry leaves) into compost.

## 12.8 Public Grievance Cell

The PG Cell has been functioning in the Ministry to attend to the grievances / complaints from the public received through CPGRAMS or otherwise regarding various issues like environment, pollution, wildlife, forestry and other environmental matters.

Grievance Redressal Officers (GROs) and Sub Appellate Authorities (SAAs) were nominated to attend to the PGs and PG Appeals, respectively, keeping in mind four dimensions i.e. efficiency, feedback, domain, organisational commitment along with other indicators introduced by the DARPG. PGs and PG Appeals should be disposed of within stipulated time frame and quality of reply should be such that it generates positive feedback of the person filing the PG.

This year, PG Cell of the Ministry received 8,776 PGs of which 238 PGs were brought forwarded from the previous year and 8,538 PGs were received during the year. During the said period, 8290 PGs were disposed of.

During the year, 913 PG Appeals were received in the Ministry of which 849 PG Appeals were disposed of.

As an institutional mechanism to oversee the implementation of RTI Act, 2005, the status of RTI Applications and appeals is regularly reviewed in the Senior Officers' Meetings including root cause analysis and Interactive Feedback Session.

## 12.9 Implementation of Official Language Policy

### a. Introduction

Functions of Official Language Division in the Ministry are to implement Official Language Policy of the Union as prescribed in the Constitution of India, Official Language Act, 1963 (as amended 1967), Official Language Rules, 1976 (as amended 1987, 2007 and 2011), Annual Program and orders issued by the Government of India from time to time. This includes translation of documents and implementation of Official Language policy in the Ministry.

### b. Activities undertaken

- Meetings of Official Language Implementation Committee –  
During the said period, 03 quarterly meetings of the Official Language Implementation Committee were held to review the status of implementation of Official Language Policy in the Divisions / Sections of the Ministry as well as in the Subordinate Offices of the Ministry located in Delhi-NCR.
- Hindi Workshops-  
During the period under report, 03 Hindi workshops were organized to enable the officers and employees of the Ministry and offices under its control to do their day-to-day work in Hindi.
- Inspections-  
In order to review the status of implementation of the Official Language Policy of the Union, the Committee of Parliament on Official Language inspected 09 offices under the control of the Ministry of Environment, Forest and Climate Change. Keeping in mind the target set in

the Annual Program 2025-26, the Ministry conducted official language inspection of its 14 divisions / sections as per the target set and resolved the deficiencies found.

- Publication of “Paryavaran” magazine:  
The 73rd issue of the Ministry's 'Paryavaran' magazine has been published.
- Hindi Salahkar Samiti  
The Hindi Salahkar Samiti of the Ministry has been reconstituted and the first Meeting of the committee is going to be organized soon.
- Participation in Swaran Jayanti Samaroh and The Hindi Diwas and Fourth All India Official Language Conference organized by Department of Official Language  
Officers and employees of the Ministry of Environment, Forest and Climate Change participated in the Swaran Jayanti Samaroh organized in Delhi on 24 June 2025 and Hindi Diwas and Fourth All India Official Language Conference organized in Gandhi Nagar, Gujarat from 14 to 15 September, 2025 by the Department of Official Language, Ministry of Home Affairs.
- Organization of Hindi Mah:  
Like every year this year Hindi Mah has been organized in the ministry from 01.09.2025 to 30.09.2025. During this period, 09 Hindi competitions were organized. Large numbers of officers and employees of the Ministry and CCU has participated in the Competitions.

## MISSION KARMAYOGI IMPLEMENTATION IN MoEF&CC

1. The Capacity Building Unit successfully guided 76 Nodal Officers (MDO Admins) across all Divisions of Ministry and 11 Regional Offices, institutionalising decentralised ownership of training planning and monitoring.

2. Comprehensive training of MDO Admins was conducted, and structured Training Plans for FY 2025–26 were prepared and approved across Divisions, integrating competency mapping and role-based learning into the Ministry's annual planning cycle.
3. Mission Karmayogi implementation was expanded to subordinate and attached offices, with formal designation of nodal officers, finalisation of organisational hierarchy templates, and customised Capacity Needs Analysis for domain-specific competencies. Capacity Building Plans of premier institutions including IGNFA, CASFOS (Dehradun, Burnihat and Coimbatore) and WCCB were approved, ensuring institutional alignment with the National Programme for Civil Services Capacity Building.
4. Under the Rashtriya Karmayogi Programme, the Ministry successfully completed large-scale behavioural transformation initiatives. Seven Master Trainers were developed at the national level, followed by 17 workshops that trained 505 officials in Seva Bhaav, ethical conduct and citizen-centric governance. Subsequently, 2 Lead Trainers and 102 Master Trainers were created within the Ministry ecosystem, enabling training of approximately 4,100 end participants across institutes, organisations and sub-offices, thereby embedding behavioural competencies at scale.
5. The Ministry demonstrated strong digital learning performance on the iGOT Karmayogi platform, with more than 6,500 registered users completing over 1,05,000 learning hours during the year. A repository of 25 domain-specific courses developed by the Ministry and its associated institutions supported structured, competency-based learning across cadres.
6. As of 30 November 2025, the Ministry ranked 2nd among 89 Ministries / Departments in the Mid-Term Progress Report of the Capacity Building Commission and featured among the

top-performing Small Ministries / Departments under the Rashtriya Karmayogi Programme, reflecting sustained institutional commitment and measurable performance outcomes.

## 12.10 Civil Construction Unit (CCU)

### a. Introduction

The Government of India decided that each major scientific department with substantial annual civil work budget should have Civil Engineering Unit of its own for expeditious implementation of work connected with plan schemes. Accordingly, Civil Engineering Wing (now CCU) was created in March 1987 in Ministry of Environment, Forest and Climate Change. CCU headed by Chief Engineer is a division under the administrative control of the MoEF&CC. Main roles of CCU are:

- i. Planning of work including preparation of estimate in house and vetting of estimate prepared by other PWOs.
- ii. To construct major works in house or getting these constructed through other PWOs.
- iii. Technical advisor in the construction works of the ministry.

The Provision of CPWD code/work manuals apply to such work. All proposals relating to policy matter are submitted to the Secretary, MoEF&CC.

### Function of the Division

The CCU is engaged in execution of Civil and Electrical works of MoEF&CC, its attached subordinate and autonomous offices. These include RO, BSI, FSI, DFE, NMNH, IGNFA, ICFRE, NZP, IIFM, GBPNHIE, IPIRTI, CPCB, WII and CZA. The co-ordination and budget management of works executed by PWOs is being done by CCU.

**b. Activities undertaken****i. Works Completed:**

S. No.	Name of Work	A/A & E/S Amount (Rs. In crore)
1	Renovation of various conference halls of MoEF&CC at Indira Paryavaran Bhawan, Jorbagh Road , New Delhi.	12.83
2	Remodelling of Regional Office of MoEF&CC at Sector 31 C Chandigarh.	3.87
3	Development of Environmental Laboratory at CPCB Regional Directorate, Shillong.	1.88

**ii. Works in Progress:**

S. No.	Name of Work	A/A & E/S Amount (Rs. In crore)
1	Development of Botanical Garden of Indian Republic (BGIR) at Sector-38, Noida, Uttar Pradesh on EPC Mode.	369.00
2	Construction of New building for CPCB at Parivesh Bhawan, New Delhi	86.10
3	Construction of Office Building for Eastern Ghats Regional Centre of ZSI, Amravati, Andhra Pradesh	84.15
4	Development of civil infrastructure for National Referral Centre-Wildlife at Junagarh, Gujarat (Phase-1)	76.50
5	Construction of HQ office building, Hostel, Auditorium and Guest House for BSI at Andul Road, Howrah.	59.51
6	Construction of new hostel block G + 2 for IGNFA at FRI Campus, Dehradun	52.61
7	C/o Type II, Type-III, Type-IV & Type-V quarters, scientist hostel, field Hostel, Auditorium and administrative Block at GBPNIHESD, Srinagar (U.K)	44.64

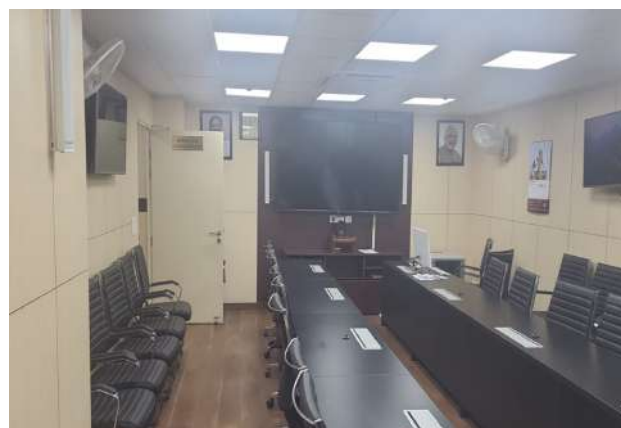
S. No.	Name of Work	A/A & E/S Amount (Rs. In crore)
8	Construction of New academic block (G+1) for IGnFA at FRI Campus, Dehradun.	17.90
9	Renovation/upgradation of Ganga Auditorium Dining hall of Vayu Wing, Godavari hall, secretary's office and common toilets of Vayu wing (Ground floor, first floor and 4th floor) and Jal wing (Ground floor) etc. of MoEF&CC at Indira Paryavaran Bhawan, Jorbagh Road, New Delhi'	11.77
10	Construction of ladies hostel for CASFOS at Coimbatore	8.58

iii. Works in Planning Stage:

S. No.	Name of Work	A/A & E/S Amount (Rs. In crore)
1	Construction of Office Complex to accommodate Regional Office of MoEF&CC, FSI, NTCA & CPCB at Doresanipalya RF, JP Nagar, Bengaluru.	115.98
2	Construction of National Coral Reef Research Institute (NCRRI), ZSI, Port Blair, Andaman & Nicobar Islands.	93.76
3	Construction of Office Building Complex for the Integrated Regional Office (SEZ), MoEF&CC, Chennai at Nanmangalam Reserve Forest Area, Chennai, Tamil Nadu.	32.24



Regional Office, Chandigarh



Conference Hall, RO, Chandigarh

# Chapter 13

## **DEVELOPMENT MONITORING & EVALUATION, BUDGET AND ACCOUNTS**



## 13.1 Development, Monitoring and Evaluation Division (DMED)

### a. Introduction

The work of Development, Monitoring and Evaluation Division (DMED) is associated with the Development Monitoring and Evaluation Office (DMEO) in NITI Aayog.

### Mandate:

The work of DMED is detailed as under:

- To carry out monitoring and impact Evaluation of the Ministry's funded schemes.
- To focus on outcomes and take them into account during appraisal for continuation of the ongoing schemes.
- To constitute Evaluation Monitoring Committee (EMC)
- Coordination with NITI Aayog

### b. Achievements

- i. NITI Aayog in collaboration with respective Ministry / Department has been preparing Output-Outcome Monitoring Framework (OOMF) 2026-27 for all CS / CSS schemes, with a view to bring focus on outcomes in addition to output and same has also been institutionalized through its incorporation in Union Budget since financial year 2019-20.
- ii. To facilitate the monitoring of progress of all Schemes, NITI Aayog had developed a dashboard and its online access had been given to all Ministries / Departments in May, 2018 to regularly update the progress against the targets.
- iii. DMED has collected information from Scheme/Programme Divisions for preparation of OOMF for FY 2025-26. The compiled OOMF 2025-26 prepared in respect of MoEFCC was sent to NITI Aayog. Hard copies of the same were printed and supplied to Rajya Sabha Secretariat and Lok Sabha Secretariat for

circulation to respective Members of the Committee.

- iv. The quarterly break-up of targets in respect of schemes of MoEF&CC FY 2025-26 was coordinated with Schemes / Programme Divisions and sent to NITI Aayog.
- v. DMED coordinated with Scheme / Programme Divisions for updation/uploading of the progress report of quarterly targets for FY 2025-26 in respect of schemes under OOMF by the Scheme Divisions in the OOMF portal.
- vi. DMED coordinated with DMEO, NITI Aayog to furnish information w.r.t evaluation study of Centrally Sponsored Schemes (CSS) of this Ministry conducted by NITI Aayog. Final evaluation report of CSS of this Ministry submitted by NITI Aayog sent to Scheme Divisions for necessary action.
- vii. DMED co-ordinated conduct of the evaluation study of Central Sector Schemes(CS) in co-ordination with Scheme Divisions through Third Party agency. Final evaluation study report submitted by the Third Party agency sent to Scheme Divisions for necessary action.

## 13.2 Budget and Accounts

Office of Chief Controller of Accounts assists the Ministry on matters pertaining to Budget, Expenditure Management, Accounting, Establishment Matters and Personal claims of the employees. The Accounting Organization in the Ministry under Chief Controller of Accounts includes one Controller of Accounts, One Assistant Controller of Accounts, the Principal Accounts office, 02 Pay and Accounts Offices (PAOs) located at New Delhi and Kolkata and 63 Drawing and Disbursing Offices (DDOS): 46 Cheque drawing DDOs and 17 non-cheques drawing DDOs.

The Principal Accounts Office (Pr.AO): The Pr. AO is entrusted with the responsibility of maintaining various accounts of the Ministry viz.

Finance Accounts, Appropriation Accounts and Monthly Account as well and timely submission of Accounts to the O/o Controller General of Accounts, monitoring expenditure to ensure adherence to Monthly/Quarterly Expenditure Plan based on DDG, conducting Internal Audit and Scheme Audit, and monitoring of compliance to the instructions issued by Ministry of Finance, O/o CGA and CPAO from time to time, has been ensured.

**The Internal Audit Wing (IAW):** The Internal Audit Wings conducts Internal Audit of PAOs, DOOs, Autonomous Bodies and performance audit of schemes of the Ministry. During the FY 2024-25, regular audit of 33 units was conducted. During the FY 2024-25 a number of 529 audit paras were settled whereas 327 fresh paras were raised. Out of these fresh paras, 55 paras pertain to non-recovery/over-payment/infructuous/irregular expenditure/irregular purchase/non-adjustment of contingency advance/blocking of government money amounting to Rs. 10032.72/- lakhs.

**The Pay & Accounts Office:** The Pay & Accounts Office is responsible for timely processing payments while ensuring adherence to budgetary and expenditure ceiling and norms of financial propriety. It is also responsible for ensuring just-in-time release of funds digitally through PFMS to all beneficiaries/vendors/agencies, while ensuring that no idle money remains parked with grantee bodies. PFMS has also been implemented in all CDDOS of the Ministry. Further, online collection on non-tax receipts through Non-tax Receipts portal (NTRP) has eliminated delay and digitized the receipts. The Pay and Accounts Office are in process to onboard all the DDOs i.e CDDOs and NCDDOs to E-bill module for smooth functioning of payment system.

Pension processing has been digitized through linkage of online Pension Sanction and Payment Tracking System- BHAVISHYA with PFMS. This

has facilitated the retiring employee to fill the forms online and the Administrative Authority to process the online claim and communicate to PAO for issuance of Pension Payment Order (PPO) to CPAO.

Employee Information System (EIS) has been successfully implemented in NCDDOS/CDOOS under the Ministry for processing Personnel payments as well as salary payments of employees of the Ministry.

GPF module of PFMS has been successfully implemented in the Ministry which has made it convenient to monitor GPF accounts by subscriber themselves. Advance and withdrawals taken by the employees are being monitored smoothly.

The roll-out of Expenditure, Advance & Transfer (EAT) module for implementing agencies receiving Grants-in-aid, has enabled for better monitoring of unspent balances and outstanding UCs SNA, CNA and TSA has been Implemented successfully in this Ministry.

Accounting of CAMPA fund is also being carried out in the Principal Accounts Office with the help of CAMPA Authority.

**Budget Division:** Budget Division is entrusted with the planning and coordination of all Schemes and Non-schemes of the Ministry. It functions as the Nodal Division for issues and matters related to Ministry of Finance (Department of Economic Affairs Budget Division and the Department of Expenditure). The work handled in the Division covers preparation, monitoring and review of the Ministry's Annual Plans and the tasks associated with the Union Budget of the Ministry. The responsibility of monitoring of the progress in utilization of allocated funds released for implementation of various Schemes is also assigned to the Division. The work of the Budget

Division is detailed as under: Preparation of Statement of Budget Estimates (SBE), Revised Estimates (RE), Supplementary and Re-appropriation proposals Preparation of Detailed Demands for Grants (DDG), Preparation of Explanatory Notes on Saving/Excess within the Grant. Coordination with Department-related Parliamentary Standing Committee Compliance of Cash Management MEP/ QEP) Monitoring of

Expenditure, Allocation of funds under Advances to Government Servant.

Annual Plan 2025-26: The Ministry has been allocated an outlay of Rs. 3412.82 crore in the Budget Estimates (BE) for the Financial Year 2025-26. The Final outlays and expenditure during 2025-26 is given in the following table: -

(Rs.In Crores)

Umbrella Scheme-wise Allocation (2025-26)			
Sr No.	Name of the Scheme	B.E.	Actual Expenditure (upto 31.12.2025)
Central Sector Scheme			
A	Environmental Knowledge and Capacity Building	102.70	6.42
B	National Coastal Management Programme	2.00	1.36
C	Environmental Education, Awareness, Research and Skill Development	101.96	58.33
D	Control of Pollution	853.90	814.18
Centrally Sponsored Scheme			
E	National Mission for a Green India	220.00	19.72
F	Integrated Development of Wildlife Habitat	450.00	144.43
G	Conservation of Natural Resources and Ecosystems	50.00	16.16
Total		1780.56	1060.60

(Rs.In Crores)

Umbrella non-scheme-wise Allocation (2025-26)			
Sr No.	Name of the Scheme	B.E.	Actual Expenditure (upto 31.12.2025)
A	Secretariat	304.95	186.68
B	Attached/Subordinate Offices	640.81	428.13
C	Assistance to Autonomous Bodies	454.62	294.99
D	Statutory and Regulatory Bodies	231.88	138.46
Total		1632.26	1048.26

## Status of Pending Audit Paras

S.No.	Para Raised By (Time duration)	No. of Pending Paras
A.	C&AG (up to 31 <sup>st</sup> December, 2025)	25
B.	Internal Audit Paras (As on)	966
C.	PAC paras as per APMS portal (up to 31 <sup>st</sup> December, 2025)	NIL



Ministry of Environment, Forest and Climate Change  
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