

### Biodiversity surveys, ecological assessments, and management planning for protected areas

The division carries out ecological assessments, biodiversity surveys, and management planning for protected areas. An important component of our work relates to protected area management including addressing and mitigating human-animal conflict issues, assessing the socio-economic linkages and dependencies of local communities on protected areas, and institutional strengthening.

### Valuation of ecosystem services

Valuation of ecosystem services is a powerful mechanism to underline the importance of biodiversity. The division is actively involved in ecosystem valuation including study to assess the economic costs of forest and mangrove degradation for Kingdom of Saudi Arabia conducted for World Bank, valuation of ecosystem services provided by protected areas in the Terai landscape for the Norwegian Government, and a valuation of two important ecosystems in Fiji for UNDP and economic valuation of ecosystem services provided by Delhi Zoo and Sardar Patel 'Statue of Unity' campus in Kevadia, Gujarat.

### Strategic planning for biodiversity conservation and conservation finance mobilization

Over the years we have influenced strategic planning in biodiversity by developing detailed biodiversity strategy and action plans for several Indian states and mainstreaming biodiversity through incorporation in climate action plans. We are currently working with UNDP as part of their global BIOFIN agenda to identify innovative financial mechanisms for Uttarakhand.

### Monitoring and evaluation

The Land Resources Division specializes in monitoring, evaluation, and impact assessments. The division has evaluated several important watershed programmes for the Watershed Management Directorate, Government of Uttarakhand. The Division evaluated on the plantation of 50 million saplings in 6000 sites undertaken by the Uttar Pradesh Forest Department. Because of these staggering numbers, this afforestation drive has been documented in The Guinness Book of World Records.

### Capacity building and training

The division organizes extensive training programmes to build the capacity of forest officials, frontline staff and communities on carbon finance, carbon stock assessments of forest ecosystems, climate action, forest governance, and biodiversity. These include capacity-building programmes held in Chhattisgarh, Uttarakhand, Punjab, Goa, Assam, and Maharashtra; training of more than 500 IFS officers under the Mid-Career Training (MCT) Programme for IFS Officers; and of local communities.

### Sponsors, Partners and Networks

In order to achieve environmental amelioration, mainly through sustainable forestry, Land Resources Division works closely with the national and international agencies, especially MoEFCC, state forest departments, state biodiversity boards, and the Ministry of Tribal Affairs. The Division collaborates extensively with national and international organizations and carries out projects for a range of organizations including the World Bank, Japan International Cooperation Agency (JICA), United Nations Development Programme (UNDP), German Society for International Cooperation (GIZ), the Norwegian Ministry of Foreign Affairs, Conservation International-Japan, International Centre for Integrated Mountain Development (ICIMOD), and International Union for Conservation of Nature (IUCN). Several partnerships have been established, e.g. with The International Partnership for the Satoyama Initiative (IPSI), Corporates such as India Tobacco Company (ITC), Hindalco industries Ltd, National Hydroelectric Power Corporation (NHPC), Gujarat Industries Power Corporation (GIPCL), YES Bank, and research institutes and universities, e.g. University of Melbourne, University of Eastern Finland, Yale University, University of Guyana, Birsa Agriculture University and the Institute of Forest Productivity, Ranchi.



### Infrastructure and Services

#### Forest Research and Demonstration Centre at Gual Pahari, Gurugram

The R&D centre is an advanced nursery, provides platform for carrying out research on forest tree species, medicinal, and ornamental plants. It supports mist chambers, shade houses, hedge gardens, and clonal orchards with the capacity to produce 3000 clonal plants annually. The Centre's gene bank holds over 42 clones of Eucalyptus hybrid, 22 clones of Poplar, and various clones of Shisham (*Dalbergia sissoo*).



**To know more, contact us:**  
Land Resources Division, TERI

**Director: Dr J V Sharma**  
Email: [jv.sharma@teri.res.in](mailto:jv.sharma@teri.res.in)

**CFMG**  
**Area Convenor:** Dr Yogesh Gokhale  
**Email:** [yogeshg@teri.res.in](mailto:yogeshg@teri.res.in)

**CSLM**  
**Area Convenor:** Dr Syed Arif Wali  
**Email:** [syed@teri.res.in](mailto:syed@teri.res.in)

**CBES**  
**Area Convenor:** Mr Siddharth S Edake  
**Email:** [siddharth.edake@teri.res.in](mailto:siddharth.edake@teri.res.in)

TERI, Darbari Seth Block, IHC Complex, Lodhi Road, New Delhi – 110 003, India  
Tel: (+9111) 2468 2100 and 2468 2111, Fax (+91 11) 2468 2144 and 2468 2145

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**The Energy and Resources Institute (TERI)** is a not-for-profit think tank, actively engaged in multi-disciplinary research on natural resource management and conservation for over four decades. Owing to its extensive work in fostering forest management, biodiversity conservation, and contributing to rural and tribal livelihoods, In 2019, TERI was recognized as a Centre of Excellence by the Ministry of Tribal Affairs. TERI has also signed MOUs with several organizations and institutions including, The Indian Bureau of Mines (IBM), Indian Council of Forestry Research and Education (ICFRE), Indian Institute Technology (IIT) Roorkee, National Aluminium Company Limited (NALCO), National Green Highways Mission (NGHM) under National Highways Authority of India (NHAI).

## Land Resources Division

The Land Resources Division in TERI focuses on promoting sustainable forest and biodiversity management, providing solutions towards generating finance through carbon mechanisms for forests, and supporting the livelihood of forest-dependent communities. The division operates through three centres: Centre for Forest Management and Governance, Centre for Sustainable Land Management and Centre for Biodiversity and Ecosystem Services.

### Centre for Forest Management and Governance (CFMG)

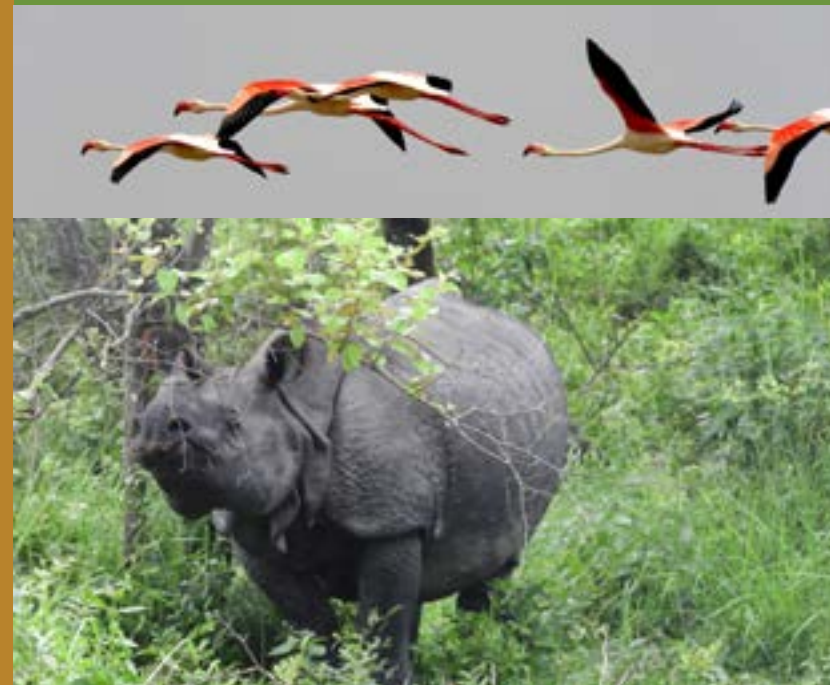
The Centre for Forest Management and Governance blends research, policy and implementation to address key challenges of the forestry sector. With a strong focus on technical interventions and participatory approaches, the Centre responds to current challenges in the area of carbon-based forestry while maintaining a portfolio of work in more persistent areas of interest such as policy and impact assessment of natural resource projects.

### Centre for Sustainable Land Management (CSLM)

Centre for Sustainable Land Management offers solutions in minimizing land degradation, rehabilitating degraded areas, and ensuring the optimal use of land resources for the benefit of future generations. The CSLM is focusing on the challenges in the area of land acquisition, rehabilitation and resettlement of PAF, mine rehabilitation, training and capacity building on climate change and forestry issues, policy support.

### Centre for Biodiversity and Ecosystem Services (CBES)

Biodiversity, upon which millions of people depend for ecosystem services, is under unprecedented pressure, threatening to unravel and weaken the resilience of complex and fragile ecological systems, and even endangering wildlife populations. The Centre of Biodiversity and Ecosystem Services (CBES) takes a broad-based view of biodiversity. The focus is not only on species or habitat loss, but also on policies, social, and economic issues that undergird arguably one of the most vexing problems facing the world today.



## Thrust Areas of Land Resources Division

### Fostering community conservation

With support from a GEF-Satoyama project grant through Conservation International-Japan, TERI has been active in mainstreaming community-conserved areas for biodiversity conservation in Nagaland. This project has won several accolades including special recognition in the category of 'Sustainable Use of Biological Resources' for the Biodiversity Awards 2018, awarded by the Government of India and United Nations Development Programme (UNDP). A documentary film on community conservation in Nagaland has won several awards at film festivals including the Golden Beaver award. The division is currently implementing Japan Fund for Global Environment of the Environmental Restoration & Conservation Agency (JFGE) funded project in North-East India to understand the role of traditional agriculture in form of shifting cultivation for sustainable development and safeguarding traditional knowledge of communities in North-East India.

## Thrust Areas of Land Resources Division

Forests and climate change	Developing sustainable forest-based livelihoods	Policy support	Restoration of degraded sites
The key expertise of this division include assessment of biomass, socio-economic/ institutional assessments, and preparation of project design documents (PDDs) for Clean Development Mechanism (CDM) and 5 REDD plus readiness assessments. A forestry NAMA (Nationally Appropriate Mitigation Actions) project has recently been completed while voluntary carbon market projects for agroforestry in states of Punjab, Gujarat and Haryana as well as voluntary carbon market project for Panchayati Forests under Utarakhand Forest Resource Management Project (UFRMP) are currently underway for generating carbon finance.	The division has established the minimum support price of selected Minor Forest Produce (MFP) in the country with the Tribal Cooperative Marketing Development Federation of India Ltd. This has been for 54 MFPs. The Government of India is revising the current rates of these MFPs on the basis of recommendations. Supported by Coal India Ltd, the division has improved the socio-economic conditions of 1,250 farmers and 10 village communities in Purulia District of West Bengal through training, capacity-building, and innovative income-generating activities for poor farmers.	The division provides policy support to promote effective forest management, land use, and governance. Currently, the Centre is developing effective forest governance models for the implementation of Community Forest Resource Rights under the Forest Rights Act, 2006.	The division is engaged in the rehabilitation of degraded sites including mined areas. The focus is on research and technology development for rehabilitation of mined areas, and dissemination of rehabilitation technology.
<b>Land Acquisition, Rehabilitation and Resettlement</b>			
Supported by the Ministry of Tribal Affairs (MoTA), the division has involved anthropological and the sociological perspective of the study in light of RECTLARR Act 2013 which act as reference points to the policymakers, administrators, practitioners, academicians, researchers and civil society to gauge the inclusiveness and sustainability of safeguards for the Scheduled Tribes and Other Traditional Forest Dwellers incorporated in the Central Law.			