

Environmental Impact Assessment and Ecological Planning for Hydropower Projects

During 2025, the Centre for Interdisciplinary Studies on Mountain and Hill Environment (CISMHE), University of Delhi, undertook a series of consultancy assignments involving Environmental Impact Assessments (EIA) and ecological surveys for hydropower projects across northern, central, and southern regions of India, particularly in ecologically sensitive river basins and mountainous landscapes.

These assignments involved comprehensive field-based ecological assessments, followed by the submission of detailed technical reports to concerned agencies. The studies were designed to support environmentally responsible decision-making by integrating scientific analysis with policy requirements.

Key components of the work included:

- Conducting multi-season ecological surveys covering aquatic systems, biodiversity, and habitat conditions
- Developing baseline ecological profiles for riverine and catchment areas
- Assessing potential environmental impacts of hydropower development on fragile ecosystems
- Preparing and submitting Environmental Impact Assessment (EIA) reports in accordance with regulatory frameworks
- Formulating Environmental Management Plans (EMPs) to ensure sustainable project implementation

A distinctive feature of these studies was the application of integrated ecological assessment frameworks, combining hydrological, biological, and socio-environmental dimensions. The work also contributed to cumulative impact assessment approaches, supporting long-term sustainability of river ecosystems.

Through these consultancy engagements, CISMHE has actively contributed to aligning infrastructure development with ecological safeguards, conservation priorities, and sustainability principles, strengthening the role of scientific institutions in evidence-based environmental governance for Viksit Bharat.