

CONSERVATION SCIENCE AND INNOVATION LABORATORY (COSI LAB) CENTRE OF RESEARCH FOR DEVELOPMENT (CORD), UNIVERSITY OF KASHMIR, SRINAGAR

Kashmir Himalaya is distinct from the rest of the Himalaya, and it has ecosystems endowed with rich and unique biodiversity. Many charismatic species have made this region their home because of unique habitats and long history of human-wildlife coexistence. It has emerged through careful use of natural resources by the local communities who strive to balance economic gains and environmental sustainability.

In recent times, owing to its geographic position, and lack of awareness related to wildlife crimes, it faces a growing threat of crimes related to wildlife. This region has also emerged as an important location for monitoring illegal wildlife trade. Climate change impacts would change gradients in habitats in mountainous areas, and this region might experience dramatic shifts in species ranges and modifications of natural habitats. These factors pose significant threats to sustainable development in the region.

To address these emergent threats in Jammu & Kashmir and Ladakh, CSIR-Centre for Cellular and Molecular Biology (CCMB), Centre of Research for Development (CORD), University of Kashmir, along with Atal Incubation Centre - of CCMB established a 'Conservation Science and Innovation Laboratory' (CoSI) based at CORD, University of Kashmir. This laboratory will function as a field office to provide scientific knowledge, training and forensic diagnostic services for the interpretation of relevant evidence in a manner best suitable for presentation in the court of law to curb wildlife crime in the region. It would serve as a knowledge hub for innovative technologies to be tested in the field to improve livelihoods and sustainability in the region. It would also disseminate knowledge on biodiversity and transfer skills to improve conservation outcomes.

CORD is a UGC-approved centre at the University to promote multidisciplinary research, including wildlife research, as one of its thrust areas, since its inception. The centre researches ecology and wildlife of Kashmir region. CORD has been a partner and beneficiary in CSIR-CCMB's National Mission for Himalayan Studies (NMHS) ongoing project on 'Improving capacity and strengthening wildlife conservation for sustainable livelihoods in Kashmir Himalaya'. The establishment of CoSI-Lab is an outcome of the deliberations made with different stakeholders through this project. Based on a joint proposal made by AIC-CCMB and CORD, IKP-Knowledge Park, Hyderabad and Rural Electrification Corporation Foundation generously supported establishment of CoSI-Lab. The University of Kashmir further provided space and human resources for setting up of the facility.

The CoSI-Lab firmly believes that it can enable successful partnerships in conservation by promoting excellence in conservation science, exchange of knowledge and skill development.

Beneficiaries

- Department of Wildlife of Jammu & Kashmir, and Ladakh
- Forest Departments of Jammu & Kashmir, and Ladakh
- Police and other Enforcement Departments of Jammu & Kashmir, and Ladakh

- Judiciary of UTs of Jammu & Kashmir, and Ladakh
- Forensic labs, universities in Jammu & Kashmir, and Ladakh
- Animal Husbandry Department in Jammu & Kashmir, and Ladakh
- TRAFFIC, WCCB, WTI and other institutions/ NGOs working for wildlife conservation in these union territories.
- Students, innovators and researchers interested in conducting field studies.
- The University of Kashmir and sister institutions in Kashmir that foster higher education

Scope of engagement of partners:

- **AIC-Centre for Cellular and Molecular Biology (CCMB):** AIC- CCMB through LaCONES and CCMB, will train research personnel and provide scientific and technical support to execute the project and monitor the project for two years.
- **CORD:** The space and other basic amenities for the proposed COSI-LAB facility are provided by CORD. It will also provide personnel for training and logistic support for the programs.

After the facility at CORD becomes self-sufficient, AIC-CCMB would continue to mentor and hand-hold CoSI-Lab. This would allow CoSI-Lab to fledge in wildlife forensics and conservation in the Union Territories of Jammu & Kashmir and Ladakh.

Outcomes:

This project will benefit biodiversity conservation in the region and society at large. In the long-run, we foresee successful closures of wildlife crime cases with more prosecutions of wildlife offenses. Success criteria would be evaluated based on the present status and the change achieved in measurable terms.

Some of the success criteria for deliverables/outcomes are:

- Significant reduction in time taken for sample analysis, report generation, and submission
- Number of people trained at the centre and the number of sensitization programs conducted by the lab
- The lab will provide a platform for research and improvements/refinements in population monitoring techniques, DNA tools and technologies, and publication of SOPs, manuals, booklets and peer-reviewed reports in national and international journals.
- MoUs with Department of Wildlife Protection of Jammu and Kashmir and Ladakh UTs, and other departments of the UTs.