Utilization of RLCMS and NLCMS Data in Environmental Management

Recognizing the gaps in consistent land cover maps across the HKH region, SERVIR-HKH at ICIMOD developed RLCMS and NLCMS using publicly available Landsat satellite imagery. These maps enabled comprehensive land cover change analysis and supported various applications, including environmental monitoring, resource management, and policy development.

Partners & Collaborators

- Forest Research and Training Centre
- Global Land Analysis and Discovery (GLAD) group at the University of Maryland
- SilvaCarbon, US Forest Service
- Bangladesh Forest Department
- SERVIR Southeast Asia

Land cover data downloaded

- **Nepal**: 3,684 times (Sept 17, 202 –Feb 2, 2024)
- **HKH**: 1,421 times (Sept 21, 2023–Aug 15, 2024)
- **Afghanistan**: 64 times (July 20, 2022–Sept 9, 2024)

Land cover data is used in informed settlement planning, prioritization
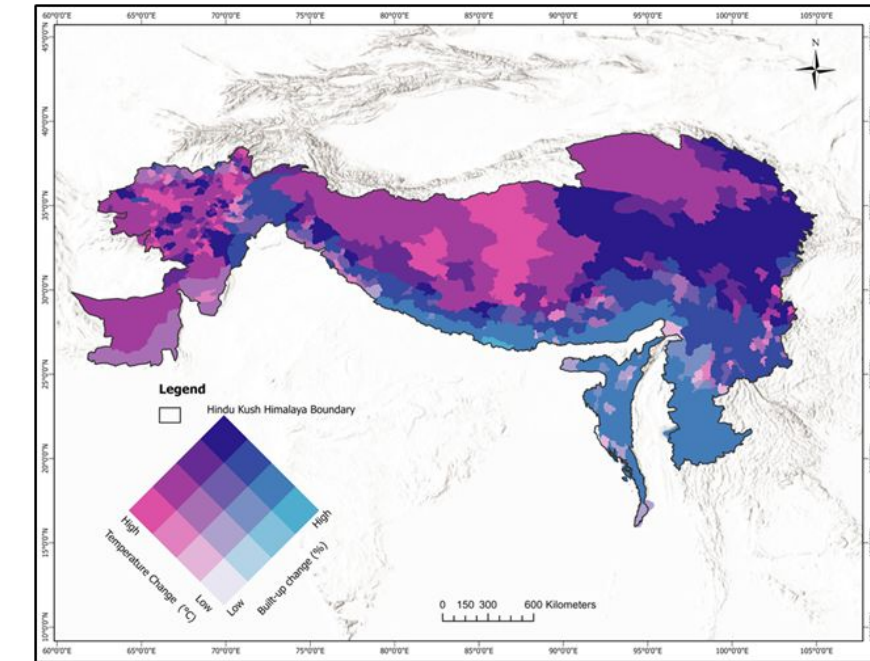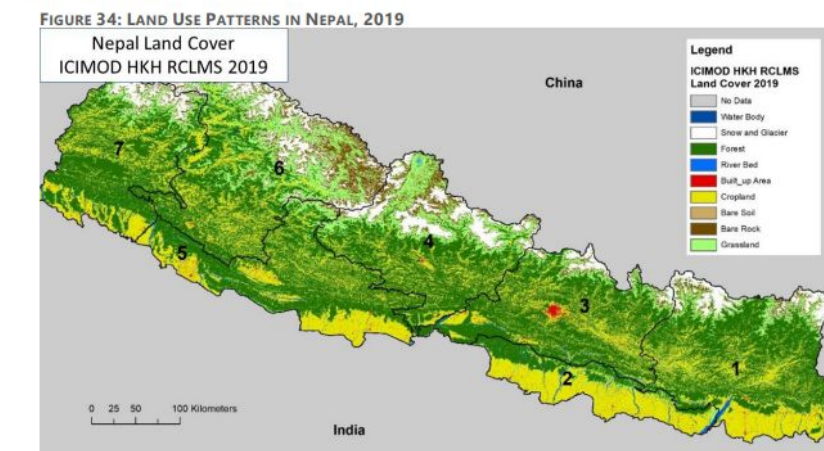
Launch of NLCMS for Nepal

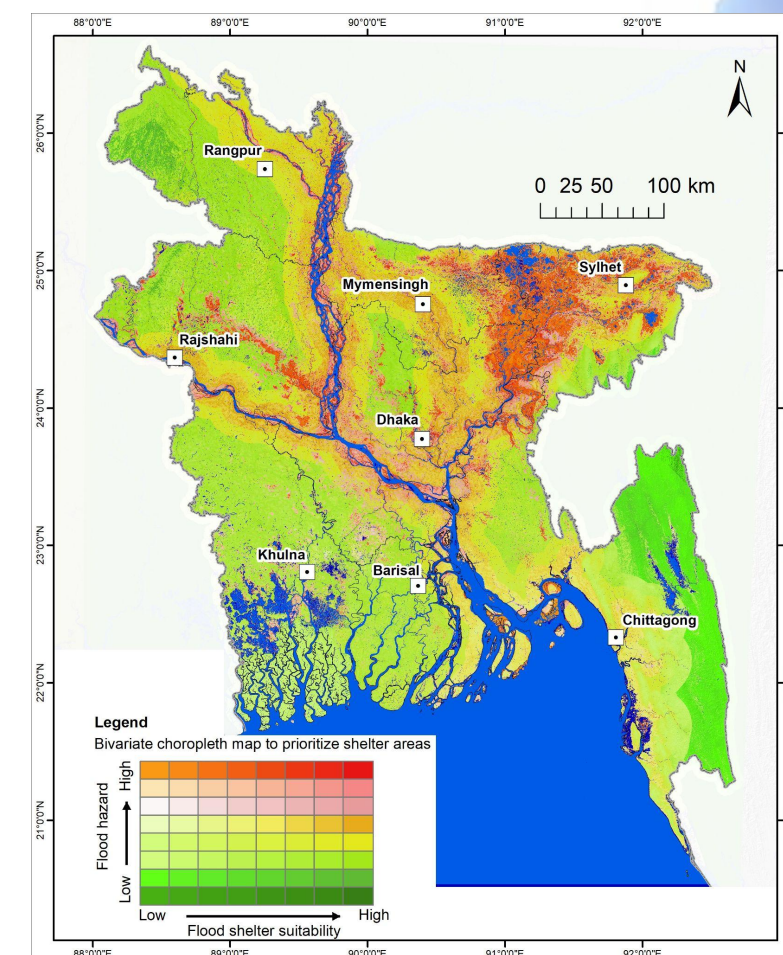NLCMS data is used as the national reporting

ENVIRONMENT STATISTICS OF NEPAL 2019

Land cover data is used in the World Bank report

Land cover data is used in the habitat suitability study

Outcomes & Impacts

- Stakeholders employed Earth observations and machine learning to develop annual land cover maps
- Enabling assessment and analysis of changes
- Utilize land cover data as a national product
- Enhancing partner's mapping capabilities
- Supporting environmental management at the HKH region

Next Steps:

- We will continue to generate national and regional land cover data
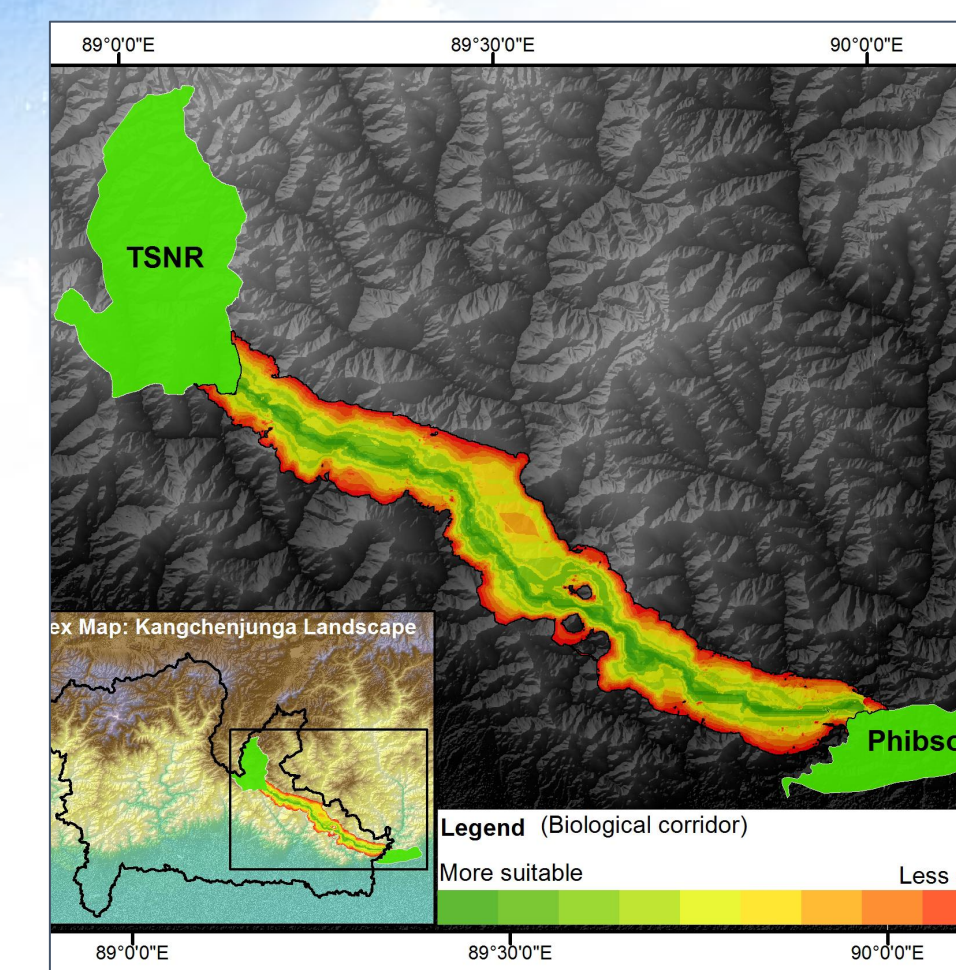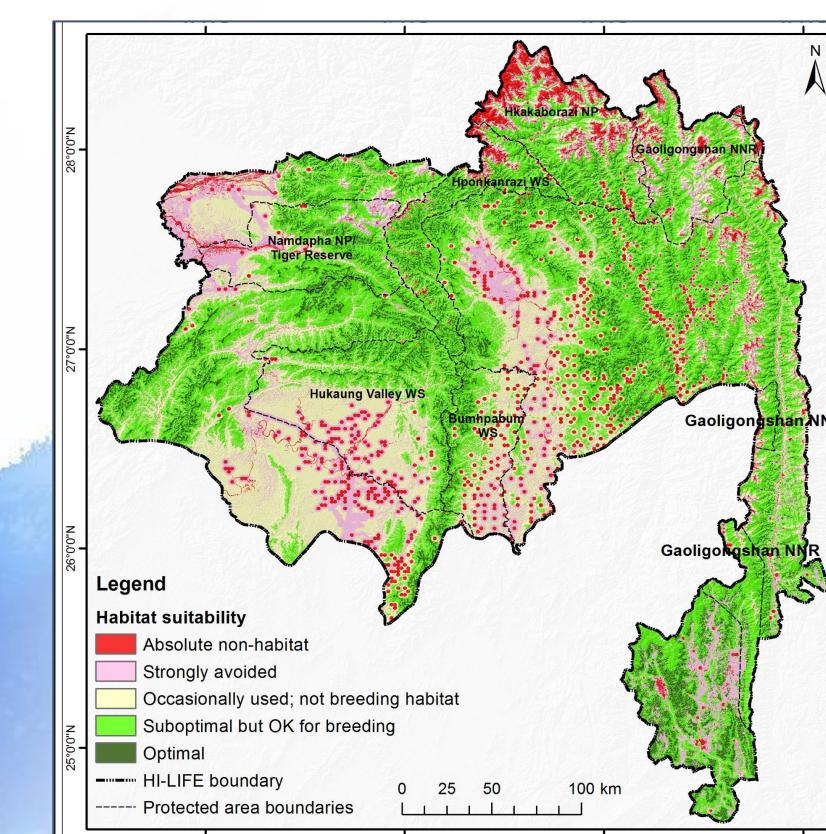- Using RLCMS land cover data, in 2025 we will generate a soil erosion map for the HKH region

Land cover data is used in flood shelter suitability mapping
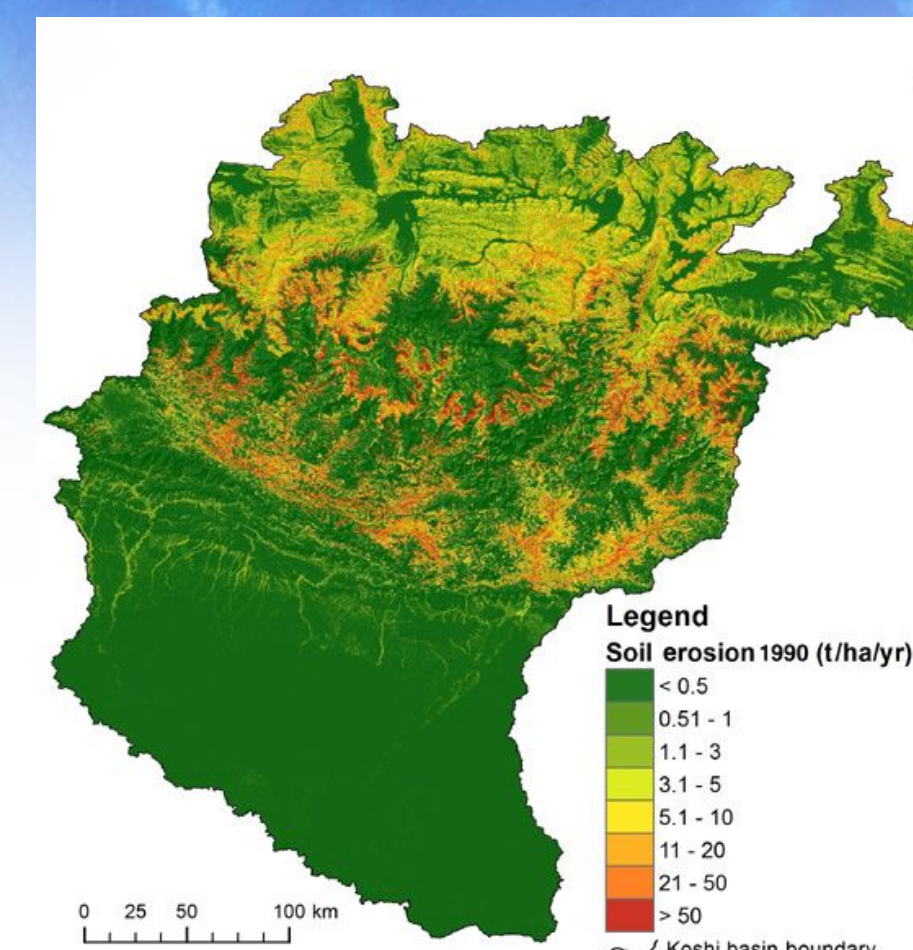
Land cover data is used in soil loss assessment.

Land cover data is used in the biological corridor design