

TERMS OF REFERENCE (ToR)

**Data Science Consultant – Disability and Disaster Mapping for
ICIMOD**

ToR

About ICIMOD

The Hindu Kush Himalaya (HKH) region stretches 3,500km across Asia, spanning eight countries – Afghanistan, Bangladesh, Bhutan, China, India, Myanmar, Nepal, and Pakistan. Encompassing high-altitude mountain ranges, mid-hills, and plains, the zone is vital for the food, water, and energy security of up to two billion people and is a habitat for countless irreplaceable species. It is also acutely fragile – and frontline to the impacts of the triple planetary crisis of climate change, pollution, and biodiversity loss.

The International Centre for Integrated Mountain Development (ICIMOD), based in Kathmandu, Nepal, is an international organisation serving the Hindu Kush Himalaya for more than two decades to make this critical region greener, more inclusive and climate resilient. For more information, read our [Strategy 2030](#) and explore our [website](#). ICIMOD places GESI at the centre of its work guided by its [GESI policy 2024](#), to promote inclusive policies, actions, and investments that support sustainable and equitable development.

Consultancy Overview

The HKH region, marked by diverse socio-economic and cultural contexts, faces escalating climate risks such as floods, GLOFs, landslides, and avalanches. People with disabilities are disproportionately affected, particularly in remote mountain areas where access to information, services, and disaster response is limited. Despite the urgency, data on the intersection of disability and climate risk remains sparse. This study aims to bridge that gap by analysing national and subnational data on persons with disabilities in India, Nepal, Pakistan, and Bangladesh.

ICIMOD seeks a **consultant/contractor (or a team of consultants)** to support a regional analysis on disability and climate risk in the HKH. The consultant will be responsible for identifying, acquiring, cleaning, and formatting relevant national and subnational survey data from India, Nepal, Pakistan, and Bangladesh. The data analysis will explore links between disability and socio-economic vulnerability. In addition, the consultant will support the development of an interactive disability map for the HKH region, collaborating with the ICIMOD team to design an interactive visual map on the status of persons with disabilities and their exposure to climate-induced disasters.

Objectives

The objective of this consultancy is to compile and analyse high-quality, comparable datasets on disability, disaster risk, and key socio-economic indicators across Nepal, India, Bangladesh, and Pakistan and to prepare the datasets for the development of interactive regional maps that clearly illustrate the linkages between disability, disaster risk, and socio-economic variables.

1. Data Collection and Compilation

- Review statistical data from census bureaus, household surveys (e.g., DHS, MICS, NSS, LSMS), and global databases (e.g., WHO, World Bank, UNDRR, IDMC) to identify relevant datasets on disability, disaster risk, and socio-economic variables for Nepal, India, Bangladesh, and Pakistan. Compile relevant national, household-level, and open-source datasets on disability prevalence, climate induced disaster risks, and socio-economic vulnerability across the four countries.
- Assess the quality of the datasets, ensuring disaggregation by disability status, gender, age, geography, and other key socio-economic variables.
- Secure necessary permissions and approvals from data-owning institutions for the use of selected datasets.

2. Data Quality Assurance

- Ensure spatial granularity and disaggregation of data by disability type, age, gender, urban/rural status, and other relevant variables.
- Aggregate data at appropriate administrative levels (e.g. districts, provinces, states), based on country context.
- Identify and document data gaps, inconsistencies, and instances where proxy indicators are used due to the absence of disability data.
- Clean and process datasets using reproducible code in (e.g.) R or Python.

3. Database Development and Analysis

- Prepare high-quality, analysis-ready datasets compatible with ICIMOD's geo-spatial and data visualisation platforms.
- Conduct statistical analysis to examine relationships between disability, disaster risk, and socio-economic variables.
- Collaborate with ICIMOD's GIS team to organise datasets into an interactive map that overlays disability prevalence, climate-induced disasters, and socio-economic vulnerability.
- Develop a user-friendly data documentation guide, including dataset structure, variable definitions, and data quality assurance procedures.
- Deliver datasets in formats compatible with ICIMOD's geo-spatial and data visualisation platforms.

Key Deliverables

Deliverables	Description	Timeline
Inception Report	A technical work plan outlining the proposed methodology for data identification, quality assurance, and analysis. Includes tools/software to be used (e.g., R/Python), priority datasets, and administrative levels for data aggregation.	15 days

Data Inventory Matrix	A comprehensive matrix listing all identified datasets from census bureaus, household surveys, and global databases, including metadata (e.g., year, source), types of disability indicators, socio-economic and disaster-risk variables, and levels of disaggregation.	30 days
Data Quality Assurance Report	A detailed report on the quality assurance process, including steps taken to ensure disaggregation and how missing or inconsistent data were addressed.	5 days
Analysis Ready Dataset	A quality-assured dataset for Nepal, India, Bangladesh, and Pakistan developed and submitted to ICIMOD's team, ready for integration with ICIMOD's geospatial and data visualisation platforms.	15 days
Final Technical Report	A report summarising the overall approach, data sources, quality assurance procedures, analytical insights, and recommendations for further use.	15 days
TOTAL		80 days

Reporting and Supervising

The Consultant will work closely with and report to the GESI Lead and Senior Geospatial Application Development Specialist, providing regular updates and submitting progress reports to them and other relevant team members for review and feedback throughout the consultancy. All datasets collected, generated, and analysed will comply with ICIMOD's Regional Information Service (RIS) protocols for archiving and knowledge dissemination.

Duration

The consultancy period is from July to December 2025, a total of 80 days within this period.

Payment:

Payment will be made in three instalments as follows:

- 20% upon signing the contract
- 40% upon submission of the data quality assurance report
- 40% upon submission of the final technical report, incorporating ICIMOD's feedback

ICIMOD's Core Values

Our core values are integrity, neutrality, relevance, inclusiveness, openness, and ambition. These values are an expression of our culture and are central to the guiding beliefs and principles of our work and behaviour. Our core values will lie at the heart of ICIMOD operations and delivery. They will underpin everything we do and frame how we work with our partners. They reflect our founding intentions and the balances we seek to hold, while equipping ourselves for the future.

Diversity, equity, inclusion, and safeguarding

ICIMOD's consultant selection process is based on the qualifications and competence of the applicants. As an employer, ICIMOD is committed to promoting diversity, equity, and inclusion, and offers equal opportunities to applicants from all backgrounds and walks of life, including but not limited to gender, age, national origin, religion, race, caste, ethnicity, sexual orientation, disability, or social status. ICIMOD strongly encourages applications from all eligible applicants, especially women, from all parts of the HKH region.

ICIMOD is dedicated to establishing and upholding a safe and nurturing work environment, where all its employees can participate fully and meaningfully without fear of violence, harassment, exploitation, or intimidation. Any type of abuse or harassment, including sexual misconduct [including child abuse], by our staff, representatives, or stakeholders is not condoned or tolerated.

Person Specification/Competencies

The consultant should have the following qualifications and expertise:

- a) Advanced degree (MSc or higher) in Data Science, Economics, Econometrics, Geoinformatics, Applied Statistics, or related quantitative field.
- b) At least 5 years of technical experience in multi-sectoral data analysis, preferably within international development, socio-economic indicators, disaster risk management, or climate change.
- c) Proficient in programming (R, Python or STATA) and knowledge of spatial (QGIS/ArcGIS) and socioeconomic data analysis.
- d) Strong understanding of data governance and ethical considerations related to disability data.
- e) Proven experience analysing large-scale and complex survey data supported by relevant publications or reports.
- f) Excellent documentation and communication skills in English.

Selection Process

Applications will be evaluated based on the quality of the proposed methodology, the consultant's technical expertise, and demonstrated experience in similar assignments. Final selection will be made based on this evaluation.

Interested consultants are invited to submit:

- An updated CV demonstrating relevant qualifications, technical expertise, and experience in multi-country data analysis, disability and disaster risk contexts, and handling large-scale survey datasets.
- A detailed methodology and approach outlining how you will carry out the tasks described in the Terms of Reference (ToR) and key deliverables. This should include steps for data collection, quality assurance, analysis, and reporting, and specify the tools and software they plan to use (e.g., R, Python, GIS tools).
- A clear strategy for managing data quality and addressing potential data gaps or inconsistencies.
- Examples of previous similar work or publications related to multi-sectoral data analysis, disability, disaster risk, or geospatial data integration, if available.
- Per day consultancy fee rates and total cost proposal in USD or NPR, inclusive of taxes. Costs related to official travels under this consultancy will be borne by ICIMOD.

Application evaluation criteria:

Criteria	Weight
Technical expertise and experience	30%
Relevance of proposed methodology	30%
Demonstrated experience in multi-country data work	20%
Quality and clarity of proposal	10%
Value for money (cost effectiveness)	10%

Method of application

Interested and eligible consultants should email their applications (and queries, if any) before **July 10, 2025** (11:59 PM Nepal Standard Time) to jobs@icimod.org.

Only shortlisted candidates will be notified.