

# SAJAG – NEPAL: Preparedness and planning for the mountain hazard and risk chain in Nepal

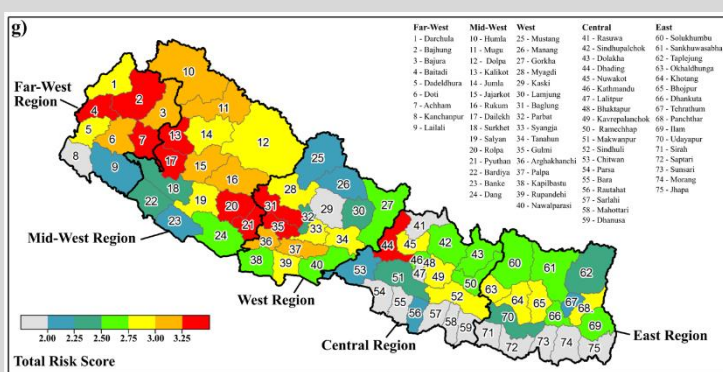
## Program Highlights

July 2021 to March 2022  
Data Source @NSET | MEL  
SAJAG-NEPAL Program

**Sajag-Nepal** is a research project funded by the UK Government's **Global Challenges Research Fund (GCRF)**. The project will explore local knowledge and experiences of mountain hazards, including earthquakes and landslides, and their associated risk, and opportunities for more effective preparedness and planning.

Specifically, the project seeks to:

1. Explore the social, political, economic, and environmental context in which disasters occur
2. Establish a new approach to national-scale strategic planning for complex multi-hazard events, including earthquakes and landslides
3. Develop new interdisciplinary science to anticipate, plan for and communicate the range of hazards that occur during the monsoon
4. Find effective ways to utilize local knowledge and interdisciplinary science to inform how to prepare for and respond to multi-hazard disasters.



The earthquake risk map of Nepal prepared by Sajag-Nepal Team in 2018 for humanitarian stakeholders to identify locations to prioritize for urgent earthquake disaster risk reduction, and individual risk metric maps. Sajag-Nepal will further update/develop scenario ensembles that consider multi-hazards, exposure, and vulnerability for National-scale Emergency Reposed preparedness plan (ERPP).



### Key Stakeholders

Government of Nepal, UN Agencies, I/NGOs, Academicians and Researchers, Humanitarian Country Team (HCT), Humanitarian Clusters

### EXPECTED OUTCOME

1. Develop a better understanding of the role of both natural science and social science in UN organizations pre-disaster planning and post-disaster response and recovery activities.
2. Support government and humanitarian agencies for the contingency planning for the multi-hazard (Monsoon and Earthquake)
3. Develop a method to allow the automated mapping of cascading hazards across the entirety of Nepal
4. Preparation of the national wide landslide inventory
5. Upscaling of landslide monitoring and modelling to multi-hazards at national scale

### ACTIVITIES

1. Preparation of the cluster workshop at federal and provincial level to map out the processes and needs of each cluster in preparing their ERPPs and to understand the decisions that are taken by and across clusters in the development of the ERPPs.
2. Derivation and Categorization of the landslide inventories: Collation of existing landslide inventories.
3. Clustering of existing landslide inventory data - Using Automated/semi-automated method for clustering landslide polygons.

4. Develop a method for calculating the degree to which each landslide progressively extends in both upslope (retrogression) and downslope (runout) directions
5. Prepare a database of 100 landslide events (2018-2021) based on ranked impact (Fatalities). This includes the collation of contextual information from media reports/local records. Further the GPS location of the identified landslide are being identified with the support of the ward representatives of the respective area.

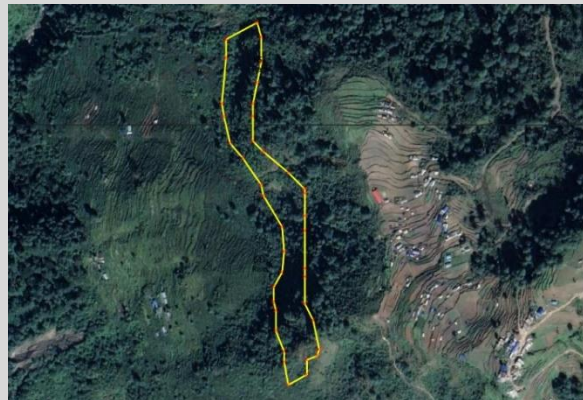
## UPCOMING ACTIVITIES

1. Humanitarian cluster workshop at federal at Federal level from April 11-13, 2022, at UN house Conference Hall. The focus groups workshop is intended to deal with technical aspects of the ERPP and disaster response for each cluster/organization, so participation from a diverse but technical group including key decision-makers, focal persons, and technical persons is expected.
2. Develop outline for multi-hazard inventory mapping in Nepal.
3. Geo physical Investigation of the 10 landslides events with potential threat.
4. Analysis of the clustered landslide and study the temporal change in the pattern.
5. Support Strengthening Urban Preparedness, Earthquake Preparedness and Response in Western Region of Nepal (SUPER) Project, UNPD in Impact modelling based on the Ensemble Earthquake scenarios
6. Field Visit with the UK team for Drone Survey and site investigation for the sensor installation.

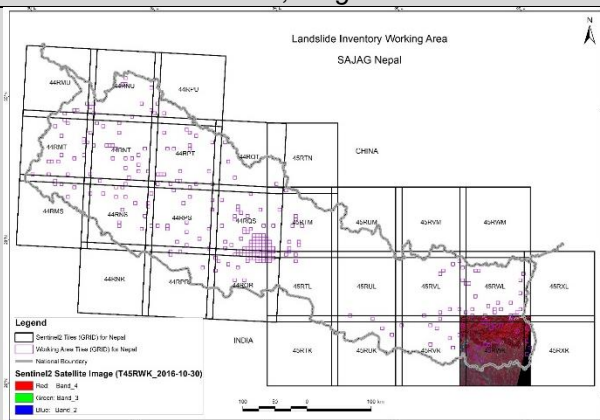
## PHOTOGRAPHS



*Monsoon Reflection and sharing session at NDRRMA, Singhadurbar*



*Validation of the landslide data using google earth images*



*Collation of Landslide inventory: Mapping of 6 Epoch (2016 Post-Monsoon to 2021 Post-Monsoon) using Sentinel2 Satellite Images*



*GPS Location mapping of the 100-landslide event (2018-2021)*

