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Indian is facing a sudden spurt in the construction activities related to roads and buildings, in the last about a decade. The fast rate of implementation of development projects in hilly terrains often overlooks the adverse geological features, that are inherently present in such areas. Inadequate geological and geotechnical inputs often lead to increased incidences of landslides, consequently resulting in geo-environmental hazards. A Landslide is the downward and outward movement of slope forming materials - composed of rock, soil, artificial fills or their combination - along the surface of separation by falling, sliding, flowing under a fast or slow rate - under gravitational force and the triggering factor may be natural or anthropogenic. There is an urgent requirement for adopting landslide hazard evaluation techniques in the planning stage of the project. Further detailed analysis of the landslides may be required for evolving suitable control measures based on the principles of sustainable development.

Sustainable development in mountainous terrains refers to implementation of development projects taking into consideration the existing instabilities of the terrain so that the resultant geo-environmental hazards can be minimized. For that purpose, the planning for construction projects should be based on the principle of 'whole to part', where large areas are initially considered with many options and later narrowed down to a specific one based on systematic investigations. This will help in adopting environmentally sound practices. In this context, the use of landslide hazard zonation (LHZ) and landslide risk assessment (LRA) maps in the initial planning stage will help to identify the potential unstable zones.

The presentation envisages to focus on a detailed discussion on the existing practices of LHZ and LRA with reference to construction activities, particularly buildings and roads. Various landslide mitigation techniques will also be discussed to minimize the distress due to landslides.