

Online Guidance Tool

## The World Bank

Environment, Natural Resources and  
Blue Economy Global Practice



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4.2.1 Choosing the LRA Level

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4.4 Phase 3: Develop Landslide Risk Reduction Strategy

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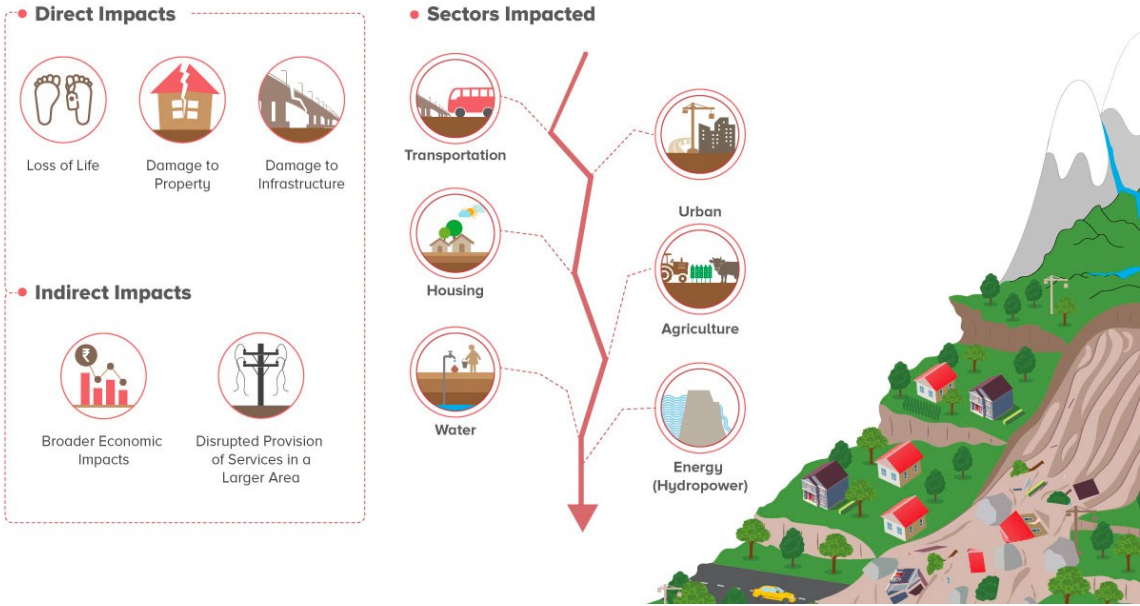
5.1 ThinkHazard

5.2 Kaligandaki Landslide Risk Assessment

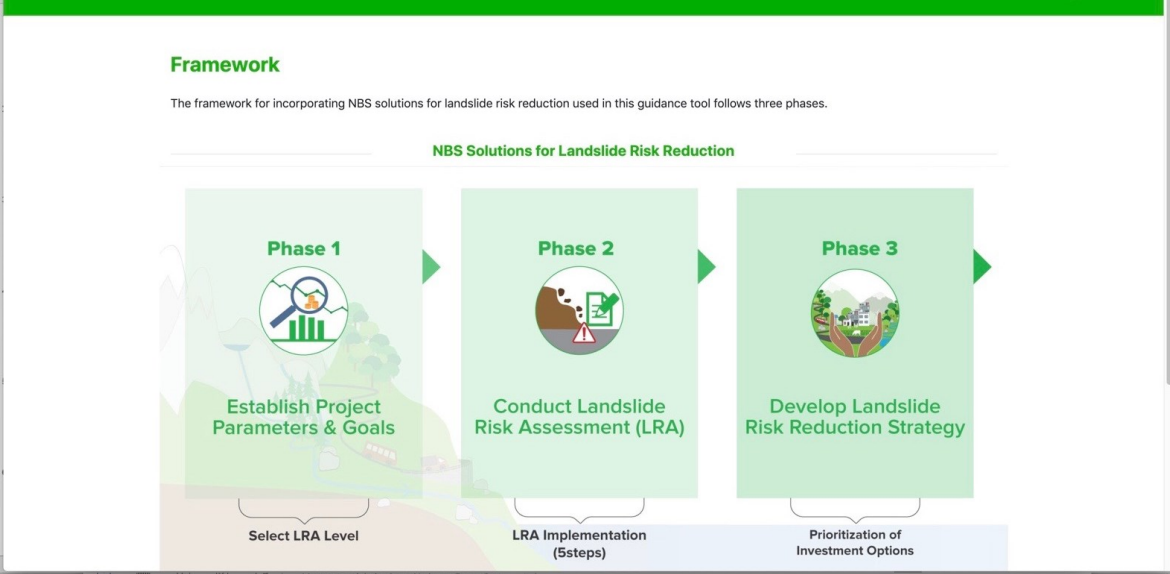
5.3 GFDRR Africa National Landslide Risk Profiles

# Benefits of Landslide Risk Management

- Landslides are a leading cause of loss of life and damage to property and infrastructure
  - Landslides interface with multiple development sectors across a landscape
  - South Asia is a global hotspot for fatalities from landslides
- = *Identifying and mitigating landslide risk at the watershed scale has multi-sectoral benefits*

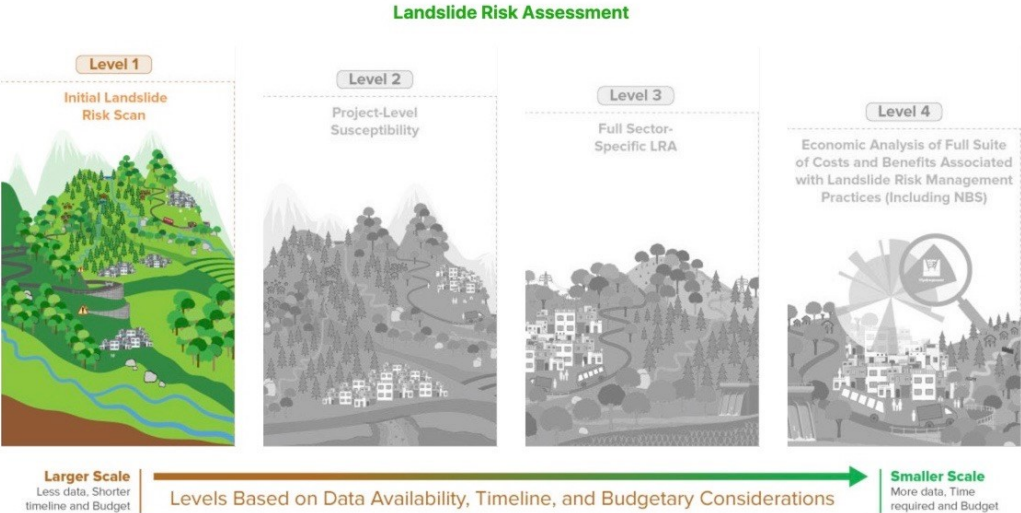


# Phased Approach to Landslide Risk Reduction



## Phase 1: Choosing the LRA Level

LRA levels range from screening-level assessments to more detailed LRA analyses that assess a higher resolution hazard, exposure and vulnerability to calculate risk and determine solutions, and a cost-benefit analysis of those solutions to guide prioritization. Note that the LRA level may change as consultants are on-boarded and help the project team with data and methods.



## Landslide Risk Assessment Steps:



# NBS for Landslide Risk Reduction Guidance

## Objectives

- Identify suitable landslide risk assessment methods
- Understand how NBS can be integrated into landslide risk reduction
- Assess the level of effort and relative cost of landslide risk assessment

## Components

- Landslides 101
- Landslide risk assessment methods
- Nature-based solutions methods
- Phased frameworks for identifying landslide risk reduction approaches
- Case study examples



### Disaster Risk Management (DRM)

Managing exposure of people and assets to landslide risk (GFDRR ThinkHazard; Africa National Landslide Risk Profiles; Sierra Leone Multi-City Risk Assessments)



### Environment (ENB)/Erosion & Sedimentation

Managing impacts to agriculture, hydropower, and drinking water quality (Kaligandaki Case Study)



### Transport/Roads

Managing impact of roads on landslide risk, and landslide events on roads (Afghanistan Roads DSS)