- Susceptibility zoning map(s) with related information on how susceptibility was determined and a description of validation and limitations of the zoning.
- Where hazard zoning is required a hazard zoning map(s) at an appropriate scale with related information on how frequency of landsliding was assessed and a description of validation and limitations of the zoning. The report should also include the landslide inventory and susceptibility zoning.

Where risk zoning is required a risk zoning map(s) at an appropriate scale with related information on how frequency of landsliding was assessed and detail the assumed elements at risk, temporal spatial probabilities and vulnerabilities and how these were determined and a description of validation and limitations of the zoning. The report should also include the landslide inventory and susceptibility and hazard zoning.

7 LANDSLIDE ZONING MAP SCALES AND DESCRIPTORS FOR SUSCEPTIBILITY, HAZARD AND RISK ZONING

7.1 SCALES FOR LANDSLIDE ZONING MAPS AND THEIR APPLICATION

Table 3 summarizes map scales and the landslide inventory, susceptibility, hazard and risk mapping to which they are usually applied. Landslide zoning maps should be prepared at a scale appropriate for displaying the information needed at a particular zoning level.

Table 3: Landslide zoning mapping scales and their application.

Scale Description	Indicative Range of Scales	Examples of Zoning Application	Typical Area of Zoning
Small	< 1:100,000	Landslide inventory and susceptibility to inform policy makers and the general public	>10,000 square kilometres
Medium	1:100,000 to 1:25,000	Landslide inventory and susceptibility zoning for regional and local development or very large scale engineering projects. Preliminary level hazard mapping for local areas	1000 – 10,000 square kilometres
Large	1:25,000 to 1:5,000	Landslide inventory, susceptibility and hazard zoning for local areas Preliminary level risk zoning for local areas and the advanced stages of planning for large engineering structures, roads and railways	10-1000 square kilometres
Detailed	> 5,000	Intermediate and advanced level hazard and risk zoning for local and site specific areas and for the design phase of large engineering structures, roads and railways	Several hectares to tens of square kilometres

In practical terms the scale of mapping may be controlled by the scale of the available topographic maps.

7.2 DESCRIPTORS OF THE DEGREE OF SUSCEPTIBILITY, HAZARD AND RISK FOR USE IN LANDSLIDE ZONING

7.2.1 General

There will be considerable benefits if those carrying out landslide zoning use common descriptors to describe the degree of landslide susceptibility, hazard and risk. It will allow geotechnical professionals doing the zoning to relate to each other and allow legislators and those developing building controls to refer to these descriptors in the knowledge that they have a uniform meaning. This Section defines susceptibility, hazard and risk descriptors.

7.2.2 Examples of landslide susceptibility descriptors

It is difficult to standardise descriptions of landslide susceptibility because:

- Whether the geological, topographical, geotechnical and climatic conditions are judged to be conducive to landsliding is often subjective and not readily quantified.
- Different descriptors are required for the different types of landslides, e.g. the proportion of the area which may be affected by the landsliding for small scale landslides; the number of landslides/ square km for small landslides; the number of rock falls per kilometre length of cliff etc.