

Glossary

ARC/INFO: A GIS software.

Band: A section of wavelengths.

Brightness value (BV): A number in a range that is related to the amount of radiance in watts per square centimeter striking a detector in a multispectral scanner. For 8 bit data the BV range is 0 - 255. This is also called as Digital number (DN).

DEM (Digital Elevation Model): Any digital representation of the continuous variation of ground relief over space.

ERDAS Imagine: A raster based image processing software.

Factor: Any characteristics, natural or man induced, of the environment which is directly or indirectly related to cause landsliding in a given region. For example slope gradient, geology, and land use/cover.

Global Positioning System (GPS): A satellite based device that records locational and ancillary data for the Earth.

Image: The recorded representation of an object produced by optical, electro-optical or electronic means; generally used when the electromagnetic radiation emitted or reflected from a scene is not directly recorded on film.

Landslide: The term used to denote all varieties of slope movements.

Landslide affected areas: The areas with any kind of slope movement phenomena, and areas associated with sediment deposition or flooding.

Pixel: A data element having both spatial and spectral aspect. The spatial variation defines the apparent size of the resolution cell; the area on the ground represented by the data value. The spectral variable defines the intensity of the spectral response for that cell in a particular channel.

Raster data: An array of cells (pixels) referenced by a set of row and column numbers. It is one of the fundamental ways of representing and storing spatial data.

Radiometric resolution: It is a sensitivity of the sensor to distinguish between the surface of the earth. For example, an 8-bit resolution indicates the capacity of the sensor to distinguish the Earth surface in 256 ranges.

Resolution: A measure of the ability of an optical system to distinguish between signals that are spatially near or spectrally similar.

Spatial resolution: Spatial resolution is a measure of the smallest angular or linear separation between two objects, usually expressed as radians or meters. For example the spatial resolution of Landsat TM data is 30 m.

Spectral resolution: Spectral resolution is a measure of the discreteness of the bandwidths. For example the spectral resolution of Landsat TM data is 7.

TIN (Triangulated Irregular Network): A relief representation consisting of a continuous set of connected triangular facets.

TM data: The data captured by thematic sensor of Landsat satellite.

Vector data: A set of graphic data that can be ultimately decomposed into point locations generally described by coordinates; it may include points, lines or polygon. It is one of the fundamental ways of representing and storing spatial data.