

**A PROPOSAL ON BUSINESS ANALYTICS PROJECT ON**

**GLOBAL LANDSLIDES**

**WRITTEN BY**

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**SUBMITTED TO**

**SCHOLARNURTURE**

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## **INTRODUCTION**

A landslide is defined as the movement of a mass of rock, debris, or earth down a slope. Landslides are a type of "mass wasting," which denotes any down-slope movement of soil and rock under the direct influence of gravity. The term "landslide" encompasses five modes of slope movement: falls, topples, slides, spreads, and flows.

Almost every landslide has multiple causes. Gravity is the primary driving force for a landslide to occur, but there are other factors affecting slope stability that produce specific conditions that make a slope prone to failure. In many cases, the landslide is triggered by a specific event (such as a heavy rainfall, an earthquake, a slope cut to build a road, and many others), although this is not always identifiable as slides are aggravated by human activities, such as:

- deforestation, cultivation and construction;
  - vibrations from machinery or traffic
  - blasting and mining
  - earthwork (e.g. by altering the shape of a slope, or imposing new loads);
  - Agricultural or forestry activities (logging), and urbanization, which change the amount of water infiltrating the soil.
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- Temporal variation in land use and land cover (LULC): it includes the human abandonment of farming areas, e.g. due to the economic and social transformations which occurred in Europe after the Second World War. Land degradation and extreme rainfall can increase the frequency of erosion and landslide phenomena.

## **STATEMENT OF THE PROBLEM**

. Landslides can be initiated in slopes already on the verge of movement by rainfall, snowmelt, changes in water level, stream erosion, and changes in ground water, earthquakes, volcanic activity, disturbance by human activities, or any combination of these factors. Earthquake shaking and other factors can also induce landslides underwater. These landslides are called submarine landslides. Submarine landslides sometimes cause tsunamis that damage coastal areas.

## **PROJECT SITE**

The project site is the National Aeronautics and Space Administration (NASA) site with the url <https://data.nasa.gov/Earth-Science/Global-Landslide-Catalog/h9d8-neg4>

## **PROJECT AIM**

Landslide hazard analysis and mapping can provide useful information for catastrophic loss reduction, and assist in the development of guidelines for sustainable land-use planning. The analysis is used to identify the factors that are related to landslides, estimate the relative contribution of factors causing slope failures, establish a relation between the factors and landslides, and to predict the landslide hazard in the future based on such relationship.

## **METHODOLOGY**

The processes below will be adopted in the execution of this project;

1. Web Scraping
2. Data Cleaning
3. Data Analysis
4. Data Visualization using Power Bi