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Landslide Investigation in Mahad Taluka : A Case Study Of Taliya Village

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Abstract: Landslide is a characteristic wonder which is *happen due to either by artificial or because of regular variables. Landslide events in slope improvement zones assume a critical part to adjust the landslide. Slope cutting and leveling for home and improvement of zone in a case of synthetic action which is an explanation behind land sliding around there Natural factor, for example, excess precipitation , surge in waterway are the case of characteristic factor so that for reason for understanding their specialized perspective we embrace examination in Taliya village.In our in examination and overview we gather soil and rock test from site in which we will done different test for researching their properties . In our review with our guide we take GPS perusing implies scope, Longitude and rise of these point and furthermore comprehended the topographical and geomorphologic qualities of shake and soil. The principal phase of our task is the study of Taliya village and gathering topographical data of site and next stage is accumulation of test of each point and testing the soil and rock sample and their outcome can be contrast with ASTM.*

Index Terms - Hillside, Latitude, Longitude, GPS

1. INTRODUCTION

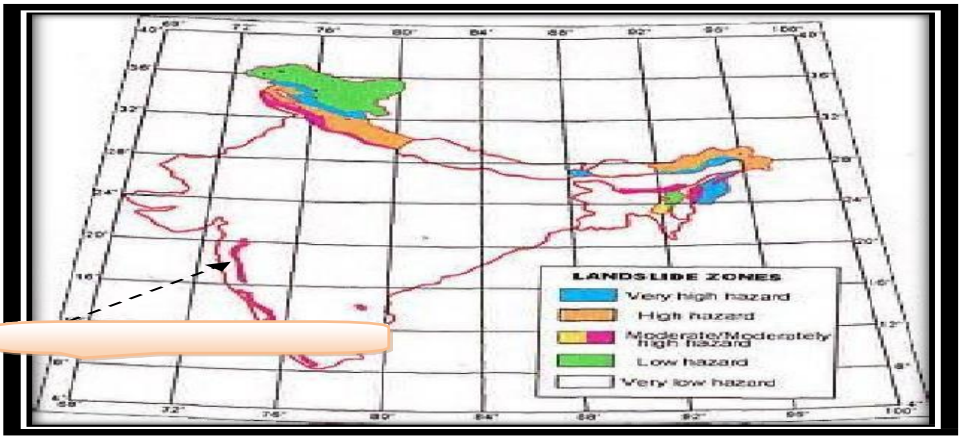
Activity in India and all around the globe is increasing rapidly.one such example of natural hazard is landslide which have the effect in socio economical way the society. The downward and outward movement of the consolidated and unconsolidated soil and rock matter from any geomorphic features due to natural and manmade caused are termed as landslide. Such movement or displacement occurs under the influence of gravity force pressure of water gently aids the phenomenon as it make the rock and soil media weak and mobile. . India is a one of the fastest developing country in the world. The rate of development in India is very rapid. A land slide is happen when the piece of normal incline can't sustain its own weight because of regular or anthropogenic reason. For instance, Soil strata on an elusive surface beneath it or toe of slant cut by synthetic action can turn out to be overwhelming with delayed substantial rain fall and may slide down because of expanding weight of soil strata the mass of moving soil material and stone can be crush the property along its way of development and cause demise of individuals and livinghood. Generally landslide is occur in low slope gradient ground too .Increasing demand of infrastructure and cheap residence has caused the development on hill. Taliya village is having heavy and prolonged rainfall and most prone area to landslide.During our visit to landslide incident were present in complex manner. The geological survey of India carried out study of landslide hazard which is divided into two types

I) Before Disaster Studies

II) After Disaster Studies

I) Before disaster Studies :The identification of susceptible slope is done by landslide hazard zonation (LHZ) mapping technique on the various scales or by studying the slope which are carried individually. There are mainly five type zone in India

1. Very high hazard
2. High hazard
3. Moderately high hazard
4. Low hazard
5. Very low hazard



II) After Disaster study :In the after disaster studies the detailed analysis of the landslide which have occurred already is done and the remedial measure are suggested.

2. METHODOLOGY

The field work survey identified and notifies the landslide activities such as scars, remedial measure in study are .The location are denoted using standard GPS instrument for the latitude and longitude .Study area map has been generated through different software. Visited location are planned from post studies as important .The surveys are used to classify to differentiate the mitigation level of action and interpret further. The sample can be collected to specify stream and test can be performed related to rock and soil sample and result can be compare to ASTM.

I) **Objective**

1. To study landslides in study area and re-markation for possible location.
2. To apply preventive measures at possible landslide points/locations.
3. To examine and investigate exact reason of landslide at study area.
4. To provide soil conservation structure along the slope and to plant the trees in short to maintained ecological balance.

II) **Study area**

Satellite Image of the Taliya village

The study area is part of Western Ghats. The latitude and longitude of study area is N19029.935'00'' and E 73049.11'00'respectively, elevation is 513m.This village is located at the toe of Janani Mata Mandir. The lithology is the compact basalt,vesicular compact basalt. The population of the village is 250.The village is located at the plain platu. The north side of village stream is present which we have studied. In the village primary school first to fifth standard. The grampanchayet of the village is in TaliyeTaliye.

3. LANDSLIDES

In the village along the road sectors more and continuous landslides are occurring because of anthropogenic activity and naturally the soil loosen its strength of creep day to day could be the causes of landslides.morever sudden discontinuous in slope means vertical cuts for road builds up could be reason

4. CONCLUDING REMARK

Conclusion of our project after studying various parameter and investigation the site we measurably found that anthropogenic and natural phenomenon are the reason for landslide in Taliya village. Heavy rainfall is a main reason of landslide in Taliya village. There is need to provide various landslide control and prevent measures like netting, bolting and shortcreating etc

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