

1. Project Title: Remote Sensing and GIS Based Input for Road Realignment Planning in the Disaster Prone Areas of NER (Silchar to Imphal)

2. Scope & Objective:

Disruption of communication links during rainy season due to landslides and mudslides has become a major hurdle in the NER, especially in the hilly terrain. Moreover search for alternate route which is free from any kind of natural disaster such as landslide, subsidence etc. is urgently needed in the region. In this regard the present study is proposed to be carried out to prepare disaster prone areas along Imphal – Silchar road corridor (NH-53). The objective of the project is to prepare a map showing disaster prone areas on 1:25000 scale or larger along Imphal - Silchar Highway corridor (NH-53) using remote sensing and GIS techniques in conjunction with the ground surveys and existing collateral data. The work also aims to validate the usefulness of DEM generated from CARTOSAT –I Stereopair in such terrain conditions where slope plays a very important role.

3. Centre/ Unit: North Eastern Space Applications Centre, NE-SAC.

4. Funding Agency: EOAM/DOS

5. Study area:

The area is covered between latitude 24° 40' N to 24° 55' N and longitude 92° 45' E to 94° 00 E with a total length of 235.425 Km. It lies in the survey of India toposheet nos. 83H/1, 83H/5, 83H/6, 83H/9, , 83H/13, 83H/14 & 83D/13 covering part of 14 toposheets on 1:25,000 scale.

6. Methodology:

The present study will be carried out in the following major steps – data collection, database generation (with pre & post field interpretation) ground truth collection and analysis. The average width of the corridor to be taken will be about 5 km (2.5 km. on either side of the road), although it may change slightly depending on the accessibility and terrain conditions.

7. Data Used:

Resourcesat: I LISS – IV MX,

CARTOSAT – I, Stereopair. (6 stereopair), Existing maps and literature and data collected from ground surveys.

8. Present Status: Completed the Interpretation of Lithology, drainage, settlement, main road (under study), geomorphology, structures etc.

9. Expected Results: Hazard Zonation Map and Infrastructure Planning Map

10. Duration: 3 Years (2007-2010)