The landslide potential index once organised and computed, ranges from 676 to 3922. Thus these values are reclassified into 5 landslide hazard susceptible zones and these are: low potential zone, medium potential zone, and medium to high potential zone, high potential zone and very high potential zone. Thus this was the final output map for landslide potential zonation generated from contributing, weighting and ranking all factors that are illustrated in Figure 2 (A, B, C, D) & Figure 3 (E, F, G, H). Figure 4 illustrate the EHP landslide hazard potential zone.

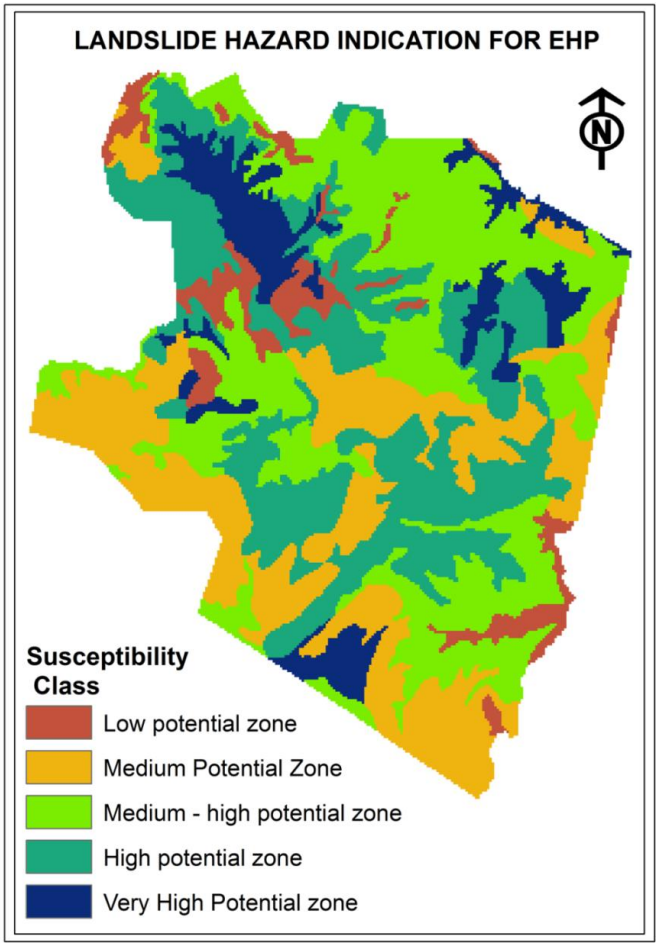

Figure 4: Landslide hazard zonation map for EHP

The landslide potential index ranging from 676 to 3922 is reclassified and arranged into 5 susceptible zones. Zones are demarcated as 5 landslide potential areas for the entire EHP as shown in figure 4. Thus table 3 shows the tabulation of Landslide potential index ranges, the susceptible zones were decided according to each ranges of LPI and finally the area covered by each susceptible classes of landslide are shown in square kilometre and percentage.

Table 3: Landslide potential index (LPI), susceptibility classes and area in percentage and km2

Susceptibility Class	LPI	Area (km2)	Area (%)
low potential zone	676 - 1288	5211.77	5.22
medium potential zone	1288 - 1845	25843.69	25.81
medium to high potential zone	1845 - 1887	33001.67	32.96
high potential zone	1887 - 2134	26964.73	26.93
very high potential zone	2134 - 3922	9097.59	9.09
Total		100119.45	100

5. Conclusion

Landslide hazards are common in mountainous areas experiencing high downpour. The hazard is aggravated by deforestation and improper land use. Moreover, such hazards further being exacerbated by frequent earthquakes are thus becoming a permanent menace to the inhabitant communities, also with respect to civil engineering construction. Events like tectonic activism, high rainfall, geology and inherent soil conditions are beyond the control of humans to manoeuvre, but pernicious human fiddling on the face of the slope by way of indiscriminate deforestation, unscientific engineering construction of building, dams etc., clearing pristine forests for agriculture should have to avoided.

In this context the research study brings out a definite relationship between the remote sensing and GIS techniques, which play a significant role in landslide zonation mapping. All the data were processed and analysed in GIS environment. The landslide hazard zonation of EHP can give clear view to the community living in EHP and civil engineers on the varied potential zones for landslide as depicted on the map. These can be a stepping stone for communities to look ahead, plan and manage their lands in a way that they can have the appropriate preparedness to mitigate the impact of landslide in such mountainous areas.

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