

**A NOTE ON PRELIMINARY GEOTECHNICAL INVESTIGATION FOR  
CONSTRUCTION OF POURKARMIKAS QUARTER / HOUSES UNDER THE  
“POURKARMIKAS GRUHA BHAGYA SCHEME” AT MADIKERI, KODAGU,  
KARNATAKA**

In pursuance to the request from the office of the Commissioner, City Municipal Corporation, Madikeri, a team of officers from State Unit: Karnataka & Goa, Geological Survey of India (GSI) comprising Shri. K V Maruthi, Director; Shri. Sunandan Basu and Shri. Amar Jyoti Hatiboruah, Geologists; visited the site in Karnangeri village near Sudharshan guest house, Madikeri, Kodagu district for preliminary geotechnical investigation on 16<sup>th</sup> May, 2019. The GSI officials visited the site along with officials from City Municipal Corporation, Madikeri. The GSI officials carried out preliminary geotechnical investigation of the site mentioned in table below:

Sl. No	Location		Elevation	Locality	Lithology
	Latitude	Longitude			
1	12°25'12.17"N	75°44'49.56"E	1158 m	Karnangeri Village Madikeri Taluk	Granite Gneiss (Peninsular Gneissic Complex )

**Brief description of the site:**

The site is located near Karnangeri village, Madikeri Taluk adjacent to Sudharshan guest house, Madikeri. The site is moderately undulating in nature with general slope varies from 35° - 40°. Geologically the area comprises of highly weathered granite gneiss and the overburden thickness of the area is relatively high (5 – 7 m). There are no landslides or surface cracks present within the site or along the peripheral part of the site. One prominent 1<sup>st</sup> order stream with the flow path towards south western direction is present within the site. The 1<sup>st</sup> order stream along north eastern peripheral boundary of the site is partially filled with some dumped materials (Photo – 2 & 3) which may block the stream in future resulting in initiation of slope failure. Moreover, the site is situated at the mid slope area of the hill slope. For any constructions in the mid slope area, cutting and benching of the slope is essential. Proper remedial measures must be adopted for the cut slope towards the upslope area and the toe of the bench towards the downslope area to avoid any slope failures in the future.

- Further, the study site falls under high susceptible zone as per the landslide susceptibility map of NLSM programme of GSI (Ankur Kumar Srivastava, Sr. Geologist and Neha

Kumari, Geologist, 2017: Marco Scale (1:50,000) Landslide Susceptibility Mapping in parts of Toposheet No. 48P/7, 11 & 12, Kodagu District, Karnataka). The adjacent areas also fall mostly under moderate susceptibility zone. This high to moderate susceptible zones should be either avoided for any future construction or utmost care should be taken if any future constructions are supposed to be carried out in these zones.

From all these observations made during preliminary feasibility study, the site is found to be geotechnically not suitable for construction of pourkarmikas quarter / houses. But it was informed to the GSI team that Detailed Project Report (DPR) for the site has already been prepared by some other agency. So, in case of any future construction, proper precautions and care must be adopted in cutting, benching and stabilization of the slope.



Photo – 1 View of the general slope of the site.



Photo – 2: 1<sup>st</sup> order stream at the site partially filled with dumped material in the north eastern peripheral boundary.



Photo – 3: View of dumped material along the north eastern peripheral boundary of the site.



Photo – 4: View of weathered granite gneiss exposed at the top of the hill slope.

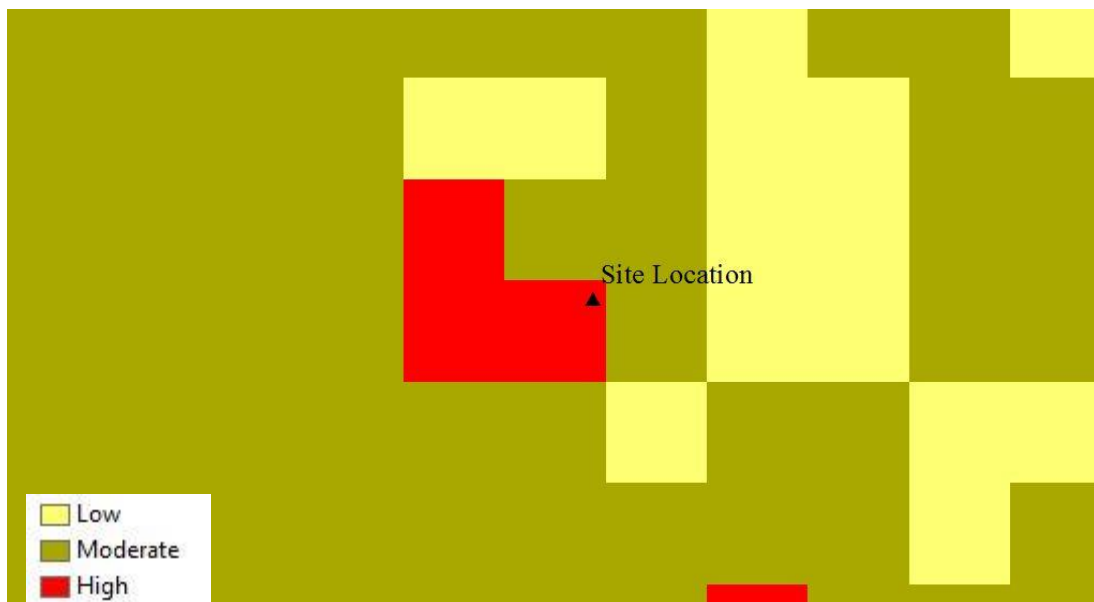


Figure – 1: Location of the site over landslide susceptibility map of NLSM programme of GSI