1.1 Location and Accessibility: The State of Meghalaya comprising the Garo, Khasi and Jaintia hills districts geographically covers an area of 29,000 sq. kms. approximately. Formerly a part of undivided Assam State, it came into existence on 19th January, 1972. The state is bordered by Assam in the North, East and West and by Bangladesh in the South. Physiographically, the state represents a remnant of an ancient plateau of Pre-Cambrian shield, a block uplifted to its present height. This plateau stands as a watershed between the Surma valley and Bangladesh on the south and Brahmaputra valley of Assam on the north. Dissected by several rivers and a network of their tributaries and lateral streams, it presents a picturesque landscape of plateau, ravines, brooks, rivulets, lakes and waterfalls, besides some magnificent gorges exceeding 60m. depth. The elevation of the state varies from 150m. to 1950m. above the mean sea level. Shillong, the capital city, is located at an elevation of 1800m. in the central part of Khasi hills district. The population density of the state is 44 per sq. km.

The area where the present studies are carried out falls in the Jaintia hills district which forms the eastern part of the Meghalaya State, comprising about 4000 sq. kms. of area with population of about 1 (one) lakh. The district with a mean elevation of about 1000m. overlooks the gentle plains of Bangladesh to the south and the Assam plains to the north and east. It presents a rugged terrain where the hills are generally flat topped rising up to a height of around 1200m. above the mean sea level.
Deep gorges and narrow valleys curved out by the Myngot, Mynthedan, Mynghreg and a number of turbulent streams characterise the topography. The drainage pattern reveals straight courses for the rivers and streams.

The study area is a part of the Khliehriat Subdivision of the Jaintia hills district and falls in the Survey of India toposheet No. 83 c/sw and is bounded by latitude 25°8' and 25°25' and longitude 92°10' and 92°25'. The area lies south of the Shillong-Badarpur National Highway No. 44, which passes through this subdivision. Bapung, the northernmost point of the area is situated at about 97 km. from Shillong, the State Capital and 27 km. from Jowai, the District Head-quarter. A gravelled road connecting Bapung with Borghat is the only communication link up of the study area with the National Highway No. 44, and rest of the State.

1.2 Physiography: The area represents a gentle undulatory topography with flat topped hillocks scattered all over the area having a gentle general slope towards south. The highest elevation measured is 1302 m., above sea level, around Rynbed village south of Bapung. This gentle undulatory topography with decreasing southward elevation laterally merges with the plains of Bangladesh near Borghat in the extreme south. In the northern part, this gentle undulatory topography is dissected by numerous small ravines and valleys; whereas towards the southern margin deep gorges curved out by outgoing streams adds a few scarps, cliffs and gorges to the existing topography.

1.3 Drainage: The drainage pattern reveals near straight courses for the rivers. Myntdu and Lyber are the two rivers draining the present area. Both
of them has taken an almost southerly course in the area. Several tributaries passing through the hills subsequently feed these rivers. They scoop out small ravines in the northern part of the area. Southward, approaching the plains of Bangladesh, where the elevation diminishes, it gives way to the formation of wide flood plains on the river banks. Massive headward erosion by the rivers also resulted in the formation of deep gorges along the river courses.

1.4 Climate: The climate in the area is represented by extreme weather both in winter and summer. The summer is represented by moderate to heavy rainfall. An annual rainfall of around 600cm. has been recorded around Khilishrist the Sub-divisional headquarter. Except a few centimeters of sporadic fall in the winter months, the area receives the bulk of the rainfall between March and September, during the monsoon. The summer temperature fluctuates between 25 to 30 degrees celsius during the sunny hours of the day. Nights are quite pleasant with mercury level moving around 8-10 degrees. The winter months eventually saw a sharp fall in temperature with the formation of mist, dew in the night. Peak period viz. months of December and January even experiences a near freezing point temperature fall, leading to the formation of small sheets of ice on the top of all the water bodies. But southward, approaching the Bangladesh plains, the climate is quite warm even in the winter months, the night temperature fluctuate around 10 degrees.

1.5 Vegetation: The area in the north presents very picturesque views with its green meadows and grass covered flat topped hillocks containing isolated groups of pine trees. Thick bushes and shrubs are noticed in some
of ravines, curved out by outgoing streams. With the diminishing heights towards south the pine population diminishes giving way to sub-tropical type of vegetation. High rainfall and high temperature characterise sub-tropical climates. The high rainfall in the area produces a rich deciduous forest. The forests are marked by broad-leaf hard wood trees, that shed their leaves during the cold dry season. The trees have their branches inter-twined by luxuriant vines and creepers. Important among the trees are Sal, Teak, Mahagoney, Sandal, Cane and Rasewood. Besides tall bamboos and coarse grasses also grow between the trees. A luxuriant dense undergrowth of weeds, bushes and creepers also covers the topography besides tall trees.