

Chapter 2

Scope and Object of the Present Investigation

The soils of the Eastern Himalayan Region had not so far received proper attention of soil scientists, mineralogists and agricultural chemists. Indiscriminate deforestation and land slides have been seriously affecting the nature of the soil. Our knowledge with regard to the actual soil condition of this region is still meagre. Moreover, unscientific farming as well as heavy rainfall sometimes become the radical cause of soil erosion and environmental imbalance.

As the nature and mode of different agencies responsible for soil formation and distribution of organic matter in soils are very much governed by the eco-system, the physicochemical characteristics of the soils are found to vary widely from region to region. The temperature decreases with increase in altitude of the places. Thus there is a change in the local climate which affects the formation of soils. So the soils of the Eastern Himalayan Region have been developed under varied climatological conditions. Little information is available on physicochemical characteristics, inorganic and organic components and plant nutrients of the soils of the Eastern Himalayan Region in respect of their distribution as functions of altitude and climatological conditions. Such studies are essential for conservation and management practices.

Keeping all these in view, bulk of the work done which appear in the subsequent pages is of applied nature aimed at getting an insight about the soil. The hill soils of North Bengal and Sikkim soils having different altitudes have been studied. Emphasis has been given on NPK and micronutrient status, characterisation of the humic substances and clay mineralogy of the soils.