Physical environment, Socio-economic influences and Population Distribution

In order to live, all human beings require certain resources that include oxygen, water and food, warmth and living space. These ecological necessities for human life are absent in certain physical environments like altitudes above 5,000 metres, glaciers and rocky terrain. The optimum temperature for humans is between 10-30°C. But the human population is biologically very adaptable, as evidenced by Inuits of Canada, desert Bedouins and Andean Indians, who manage to make a living in inhospitable climatic conditions. In spite of severe physical constraints, human beings can live almost anywhere on the earth's surface using technology and imported resources. Ecological factors can have both a limiting and an enhancing effect on the distribution of human populations. Favourable physical factors such as water, good soil and flat terrain can attract people to an area and help support high population densities. Unfavourable conditions such as cold climates and high altitudes, repel people. It must be stressed that physical factors are closely linked to economic factors and many physical constraints, if economically attractive, can be overcome by supplementing the resources from other areas. Deserts can support people by the use of a high level of irrigation technology.

The economic characteristics of an area exert a much more direct effect upon its population patterns than do its physical characteristics. To a great extent, the nature of a given economy determines the ways, in which a group of people controls or is influenced by the physical environmental elements either singly or in combination. Socio-economic considerations such as the level of technological advancement attained by a society and the type of economic activity undertaken by a population can be equally if not more important than physical factors in determining population distributions.

With such important considerations in mind it is rather obvious that the physical and socio-economic environment of Birbhum district requires a thorough and careful study in a proper assessment of the population distribution of the district. However mere description of the physical and socio-economic characteristics of the district will not effectively project such interrelations. Throughout the following sections, a correlative approach will be attempted between population distribution and the different elements of the physical and socio-economic environment of the district. This study combines the traditional geographical outlook with prevalent quantitative techniques in analysing the interaction of selected environmental factors and population distribution.

It is considered impossible to discuss population distribution without indicating how many persons are there in proportion to a given area. The density of population thus acts as an indicator of population distribution. The population of Birbhum is predominantly rural. Hence in the present study, a selection of physical and socio-economic determinants of only the rural population distribution of the district has been examined.