Kashmir is considered to be a paradise on earth. It is also a paradise for researchers. It has many unexplored natural and cultural phenomena which are largely due to the difficult terrain. Substantial areas of Ladakh province are geologically unexplored. Pastoral activity and tourist industry offer virgin fields for research. Similarly numerous problems of regional, economic, human and urban geography await solutions. Jammu and Kashmir is an area of great natural charm, possessing still greater geographical interests. It possesses sparkling rivers, silvery springs and streams, lofty mountains and above all dense and luxuriant forests.

It is in the forests resources that a great potential for economic development exist. A considerable portion of revenue of the state comes from the forest royalty. Consequently the forests of the state are considered to be green gold. The only other natural resource that can match forests in economic significance is a great the potential for hydro-electric power development but it involves enormous cost and numerous technological problems. Tourism is another revenue earning industry of the state and banks heavily upon the scenic beauty of the forests. It is a sorry state of affairs that in spite of all this no serious
and systematic work either from ecological, botanical or even from geographical point of view has been done to study the forests of the state as a whole.

It is in this context that the present work has been undertaken. A general survey of the forest types of Jammu and Kashmir State has been made. Some discrepancies in Champion's list of forest types for Jammu and Kashmir State have been noted and rectified. Depending heavily on Champion's classification of forest types of India (relating to Jammu and Kashmir State) the author has tried to give the local distribution of each type in Jammu and Kashmir State in detail, thus filling the gap left by Champion and Seth in their Revised Survey of Forest Types of India (pertaining again to Jammu and Kashmir State).

Of all the forest species present in Jammu and Kashmir only four, namely Cedrus deodara, Pinus wallichiana, Abies pindrow (also Picea smithiana) and Pinus roxburghii are extensively being exploited at present. A detailed distribution of these four species in various forest division of the state is given, taking into consideration their areas, population and density per hectare. To measure the absolute dispersion of these species the standard deviation method has been used. Similarly, to measure the relative variation of each species within a forest division or
throughout the state, coefficient of variation (c.v.) was obtained by using the formula
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\text{C.V.} = \frac{\text{Standard deviation}}{\bar{X}} \times 100 \text{ where } \bar{X} \text{ is the mean of the areas. Thus the homogeneity or consistency with which a particular species is found over an area (forest division) was revealed. Since it was practically impossible to discuss every forest species found in the state individually, a list of important species indicating their natural habitat and occurrence along with the potential uses to which these can be put to appears in Appendix 2.}

Without regeneration the forests are likely to disappear. It was, therefore, thought proper to investigate the state of natural regeneration of these species. It was found that although nature demand localised help from man in the process of regeneration of all the species, the condition of *Abies pindrow* (fir) is pretty bad. This species, therefore, demands extensive artificial regeneration. Measures which are required to be taken for the augmentation of natural regeneration are suggested.

In the section dealing with utilization of forest resources, an assessment of growing stock viz-a-viz total extraction has been made. Regional and temporal variations in the extraction of timber of each species has been discussed in detail. Standard deviation and coefficient
of variations in actual outturn of timber were calculated to show the absolute variations in the actual extraction during the period 1966-76. Although it is very difficult to predict the future, mathematical calculations have been made to approximate the extraction in the year 1985-86, taking into consideration the trend in the extraction during the last decade i.e. 1966-76 and the position of the growing stock.

Four major forest based industries have been discussed in chapter sixth. These include Government Joinery Mills at Pampore (Kashmir) Government Kosin and Turpentine Factory at Miran Sahib (Jammu), Government Pharmaceutical and Match Factory at Baramulla (Kashmir) and Kashmir Willows at Miran Sahib (Jammu). A detailed study relating to location of these factories, availability and consumption of raw material, process of working, quality and quantity of finished products, market position of these products and labour condition have been discussed.

Minor Forest Products are most neglected in the state of Jammu and Kashmir. A survey of these minor forest products has been made, relaying heavily on existing literature and official records. The distribution and uses to which each of these minor forest products can be put to are discussed.
In the beginning of this work the physical setting of the area under study has been discussed although its aim is rather limited. The idea was not to discuss the physical geography in detail but to introduce those areas in particular which are occupied by the forests. A limited survey of soil and climate of the state has also been discussed because they very much influence the distribution of forest species.

The data for the present work has been obtained from various sources. Working plans for various forest divisions were consulted. Two forest statistical digests published in 1969 and 1974 by Jammu and Kashmir forest department were also consulted besides numerous 'Annual Administration Reports' about the forests. Official records were also consulted wherever it was felt necessary. Most of the data was collected from the official records of various forest divisions and industries. In case of minor forest products and the figures related to total timber extraction of various species, official records proved very helpful. The data regarding number of trees and the volume of growing stock appearing both in text and in appendices 4, 5, 6, 7 were obtained from the latest working plans.

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(Gurbaksh Singh)