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Title of Thesis: Agro-Climatic Regional Planning for Integrated Rural Development in Northeast India: A Case Study of Manipur Sub-Zone

Abstract

The significance of the study of Rural Development can hardly be overemphasized owing to the fact that about 75 percent of the world lives in the rural areas. The rural areas in the developed world have comparatively better socio-economic conditions but the rural areas of the Third World lag far behind in the overall degree of development. Realizing the importance of rural development, the planners and policy makers in these countries have adopted different approaches and many rural development programmes and schemes have been introduced for the reduction of poverty and well-being of rural workers. As a result of implementation of these schemes and programmes, many lives have been improved socially and economically but a large majority continue to suffer from illiteracy, unemployment and persistent poverty in many developing countries.

In India, agro-climatic regional planning (ACRP) was initiated by the Planning Commission in 1988 with a view to give a new impetus to the agricultural planning as agriculture occupies an important place in India for the growth and development of the rural economy. The ACRP aims at scientific management of regional resources to meet the requirements of food, fibre, fodder and fuel wood without eroding the status of natural resources and environment through an appropriate mix of crop production and allied activities including animal husbandry, horticulture, forestry, agro-processing , etc.

The present study is an attempt to study the spatial variations in geo-ecological conditions and availability of resources; to identify the broad agro-climatic micro-zones from sub-zones within Manipur state of India; to study the inequalities in the agricultural development of various regions of Manipur state; and to formulate integrated rural development strategy for various micro-sub-zones of Manipur state.

For the purpose of planning, 12 Agro-Climatic Micro-Sub-zones have been delineated on the basis of soil, temperature, rainfall and altitude for the state of Manipur. The 12 Agro-Climatic Micro-Sub-Zones are:- (1) Northern Sub-Alpine and Temperate Micro-Sub-Zone (ii) Eastern Sub-Alpine and Temperate Micro-Sub-Zone (iii) North-Eastern Sub-Alpine and Temperate Micro-Sub-Zone (iv) Western Sub-Alpine and Temperate Micro-Sub-Zone (v) Central Sub-

Tropical Plain Micro-Sub-Zone (vi) South-Eastern Sub-Tropical Plain Micro-Sub-Zone (vii) South-Western Sub-Tropical Plain Micro-Sub-Zone (viii) Northern Mild Tropical Hill Micro-Sub-Zone (ix) Northern Mild Tropical Hill Micro-Sub-Zone (x) Eastern Mild Tropical Hill Micro-Sub-Zone (xi) Central Mild Tropical Hill Micro-Sub-Zone and (xii) South-Western Mild Tropical Hill Micro-Sub-Zone.

The core strategies and area-specific strategies for all these micro-sub-zones have been proposed. The core strategies like horticulture, agro-processing, tank irrigation, water harvesting, mechanization of agriculture and horticulture, minor irrigation projects, animal husbandry, etc. have been proposed for each and every micro-sub-zones on the basis of geological and agro-climatic conditions. The area specific strategies such as afforestation, fisheries, sericulture, handlooms skills, agricultural input delivery systems, poultry, etc. also have been proposed for each micro-sub-zones taking into consideration the agro-climatic conditions and prevailing needs of each micro-sub-zones.

The composite index using Kyndall's ranking method has been employed to find out the resource potentials of each sector. The study has revealed that the state of Manipur has inter-districts and micro regional variations in the geo-ecological conditions such as soil, relief, temperature, rainfall, etc.

To determine the overall levels of agricultural development at the district and sub-divisional level and its uneven distribution in the study area, 15 variables for the district and 4 variables for the sub-divisional level have been selected and aggregated and transformed into indices using Z-Score technique. On the basis of the Z-Score, Thoubal is the most agriculturally developed district and Senapati district at the bottom. At the sub-divisional level, Ukhrul South is the most agriculturally developed sub-division while Tamenglong sub-division is the least developed in the agricultural development index. The study of agro-climatic resource potentials and the actual levels of agricultural development also reveals that the enormous agro-climatic resource potential of the state has not been fully utilized. There is a wide gap between the actual level of agricultural development and the resource potentials at the micro-level.