CHAPTER-VIII

SUMMARY AND RECOMMENDATIONS
Statement of the Problem

Manipur - a small hill girded state with an area of 22,327 square kilometres shelters 23,88,634 persons (2001). It had 4079 educational institutions during 1999-2000 with 6,04,462 students on the roll and 32,045 teachers employed for imparting instructions. However, provision of quality education (not necessarily on quantitative growth) is immensely needed so as to ensure rational development of this region. But education in Manipur is much more quantity oriented and least qualitative, more mechanism and less organism. The geographic education in the state seems to be less qualitative though about 5.5 lakh students are learning the subject from primary school level to post graduate level as a part of environmental studies, social studies and as a full fledged subject. Institutions, institutional community and teaching-learning support materials are the three most
important factors that affect the quality of education and in this regard, geographers may come forward for a closed investigation from geographic angle. An appraisal of the spatial patterns of distribution of educational institutions is, therefore, a pre-requisite for attaining its optimal spatial organisation. The present trend of teaching conditions and research works in geography; knowledge, understanding and attitudes of geography students; regional differences in the infrastructural development may closely be studied, examined and analysed so that strategies for future development and improvement may be suggested and portrayed.

Teaching of geography may be referred to the transmission of geographic knowledge to the students to prepare them as future citizens to imagine accurately the conditions of the great world stage and to help them to think sanely political and social problems in the world around.

The present study examines various associated features in teaching of geography, such as –

1. Assessment of the history of modern education as a background of geographic education in the state,

2. Spatial pattern of distribution of educational institutions,

3. The quality of geography teaching and attitudes of the teachers, and

4. Attitudes and level of knowledge, understanding and skill possessed by geography students, etc.

Besides, the study also attempts to give an outline of the post-graduate teaching of geography and doctoral researches in the subject being pursued in
Manipur University. It also examines the availability of geographic equipment and teaching aids in educational institutions in the state. Based on the investigations made, the various problems pertaining to teaching geography have been assessed and various suggestions for their improvements have been presented in the concluding part.

Environmental Setting

Manipur comprises an oval-shaped valley surrounded by hill ranges which gradually slope towards south. Loktak lake, the largest freshwater lake in the entire region, lies in the south-central part of the valley. Geographically, the state belongs to the Alpine system of young folded mountains. The state is drained by various rivers and streams which belong to two river systems. The state is very rich in forest resources which cover about 78.92% of her total area. Due to various reasons like terrain diversity, altitudinal variation and river regime, the climate of the state varies from place to place with sub-tropical to warm temperate conditions. Both residual and transported soils are found.

About 72% of the state population live in villages, and over 70% of them directly or indirectly depend on agriculture and that too on monoculture of rice which covers about 92% of the total cultivated area in the state. The state has a tremendous scope for the development and expansion of horticulture, livestock and fisheries. The state at present produces little mineral and enough hydro power with tremendous potentialities for their future development. Industrially, the state is least developed and has no large or medium industry. Tourism and sericulture have immense scope for development. The transport and communication network in the state is still not well developed and continue to be much below the national
average which hampers the rapid development of economic and social sectors excluding educational sector. The population of the state during 2001 recorded a growth rate of 30.02 through the last decade. The Manipur valley covering only 26 per cent of the state area accommodates as much as 58.84 per cent of the total population. Inspite of its rich natural resources, Manipur has a poor economy due to her higher population growth, low agricultural productivity, ever-expanding unemployment situation etc.

**General Education in Manipur**

The modern education though came late in Manipur, the traditional system of education, based on learning through oral transmission of knowledge from one generation to the other, have been in vogue since time immemorial. Having a wide scope of studies, education in ancient Manipur emphasised all round development of the personality. Important features of ancient education system have been:

a) use of lecture, demonstration and discussion in teaching programme.

b) practice of reward and punishment,

c) complete control of administration by private agencies, and

d) evaluation of students' achievement through practical /oral examinations.

Western education in Manipur was started during the later part of 19th century. Subsequently, the first high school was established in 1921-22 and the state experienced slow progress in expansion of western education. With the establishment of D.M. College, in August, 1946, Manipur entered a new era of higher education. Rapid strides towards achieving universalisation of elementary
education; the adoption of 10 – 2 + 3 pattern; establishment of Kendriya Vidyalayas, Sainik School, Public School, Ashram School and Jawahar Navodaya Vidyalayas; vocationalisation of education at the plus two stage; and establishment of Manipur University in 1980 were the most important landmarks in modern education in Manipur since Independence. Establishment of Centre for Electronics Design and Technology of India (CEDTI); Manipur Institute of Management Studies (MIMS); Government College of Technology; Central Institute of Plastic Engineering and Technology (CIPET); opening of regional centre and study centres of Indira Gandhi National Open University (IGNOU) and Central Agricultural University at Iroisemba are the latest additions to the modern education facilities in the state.

The first 10 years of school education is broadly divided into primary, middle and secondary sections. Sometimes, these sections form independent units and sometimes constitute integral part of a higher secondary/secondary school. Secondary examination is conducted by the Board of Secondary Education, Manipur, while the higher secondary examination is conducted by the Council of Higher Secondary Education.

Established in 1910 at the level of Deputy Inspector of Schools, the state Education Department was upgraded to inspectorate level in 1950 and finally to directorate level in 1958-59. At present, the educational administration is carried out at three levels i.e. Secretariate, Directorate and Field.

As a part of general education, the teaching of geography at the school level was introduced by the British officials. Upto the end of 1930’s the spread of knowledge of this subject was not in a proper way for want of trained teachers and
text books in local language. Lately, strategy for popularisation of geographic
instruction was taken up during 1958-59. But the instruction of the subject at the
post graduate level is quite recent and an appropriate strategy is required for its
further improvement and development.

Spatial Organisation of Educational Infrastructures

Since geographic education is provided in educational institutions, the
study of their spatial pattern and organisation becomes important as it is related to
the expansion and growth of geographic education.

The growth of educational institutions in the state before Independence
was very slow due to varied reasons. Till 1947-48, the state had only one Degree
College, 6 High Schools, 13 Middle Schools, 278 Primary Schools and 13 Special
Schools (Madrasa and Sanskrit Tol). Since then, Manipur experienced a rapid
growth of educational institutions with the introduction of free and compulsory
education. During 1999-2000, the state had as many as 3981 educational
institutions of general education (including the two Universities and four junior
colleges).

Due to variation in the physical, socio-economic and cultural
development of different regions/districts, the distribution of educational
institutions also varied from one area to the other. The four valley districts viz.,
Imphal West, Imphal East, Thoubal and Bishnupur, which occupy less than 10% of
the total state area contain more than 53% of the total educational institutions.
While primary schools are spread to most of the inhabited villages, middle schools
are found in about 80% of the villages. High Schools cover about 30% of the
settlements while majority of schools are concentrated in Greater Imphal, Thoubal and Churachandpur town areas. In the case of higher secondary schools and colleges, dense concentrations are found within Greater Imphal area and the rest are found in other towns of the valley districts. Churachandpur town too has a good number of such institutions. Though the valley districts contain the highest number of primary and middle schools, their vast population do not match with the institutions and create heavy pressure upon the institutions. While the valley districts have higher density of institutions, lesser density of them occurs in hilly districts. As a result, the average area served per institutions becomes very large in the hilly districts. A very significant feature is the availability of largest number of primary and middle schools per lakh population in the hilly district while the valley districts have the largest number of colleges and higher secondary schools per lakh population. The enrolment of students at various levels of educational institutions have increased 14-fold since Independence. Of the total students enrolled during 1999-2000, more than 66% were concentrated in the valley districts. Similarly, these districts contain around 63% of the total teachers employed in the state. During the period 1950-2000, the employment of teachers recorded a 21-fold growth. Thus, the average teacher-taught ratio in the university, colleges, higher secondary schools, high schools, middle schools and primary schools are found to be 1 : 15, 1 : 10, 1 : 22, 1 : 20, 1 : 18, 1 : 20 and 1 : 19 respectively during 1999-2000. However, the percentage of trained teachers for the state as a whole is still only one-third (33.25%).

Basic Amenities and Teaching Aids

Geography education in the state has made much progress during the last fifty years or so. Unlike the traditional concept, it has now become the science
of terrestrial space, the discipline which studies the spatial distribution of resources and human activities. The organisation of space as the framework of human activity, whether it is productive work or rest and relaxation, is its field, its real purpose. In fact, the teaching of geography lessons through the available written knowledge alone is meaningless till the knowledge earned becomes more understandable through direct investigation of phenomena and is supported by various teaching aids that are made available in the geography laboratory or classroom. By investigating a sample of seven degree colleges, nine higher secondary schools and thirty-two high schools across the state, an overview of the quality of infrastructures, including teaching aids available in the institutions can be arrived at. From the investigation it is seen that neither the colleges nor the higher secondary schools have well-set geography rooms. While 85.71% of the degree colleges surveyed have semi-pucca geography room/department, as much as 62.5% of the higher secondary schools surveyed were kutchha geography room and majority of them are not located in proper position. Of the total, 71.43% of the colleges and 75% of the higher secondary schools have very poor room amenities, whereas, not even a single high school has separate geography room. Except for the D.M. College of Arts, Johnstone Higher Secondary School and T.G. Higher Secondary School in Imphal West district and Churachandpur College in Churachandpur district, most colleges (71.43% of the total) and higher secondary schools (77.78% of the total) have less than half of the required geographical equipments whereas almost 81.25% of the high schools have no equipments at all. As revealed by the survey, not even a single institution surveyed has separate library of its own and also lack geography museum and weather observation station. About 42.86% of the colleges, 33.33% of the higher secondary schools, and 84.38% of the high schools have teaching aids hardly half of the total requirement.
Surprisingly, even the much talked about Mission and Mission model schools as well as private schools do not have even the basic teaching aids in geography classrooms.

The Geography Community

The Geography community includes the teachers and students of geography. The geography teacher is the only person in the teaching-learning process who can influence students' knowledge, understanding and their attitudes and ideas about the subject. He must be well aware of students' physical, mental and psychological conditions and needs. Besides, he must develop certain values, skills and interests in himself. For evaluating these characteristics, 16 degree college lecturers, 12 higher secondary school lecturers and 46 high school teachers from different districts were interviewed and their teaching programme were observed. It was found that most of the geography teachers (more than 80% in colleges, over 90% in higher secondary schools and almost over 95% in high schools) do not pay right attitudes and do not develop necessary skills towards the philosophy and methods of teaching geography. Most of them (above 83% in colleges) and all the geography teachers in higher secondary and high schools in the state do not have enough idea about the objectives of the teaching of geography. No significant differences in the qualification of geography teachers are detected. However, majority of the more qualified teachers with good professional training are concentrated in the valley districts. About 81%, 83% and 58% of geography lecturers and teachers in the college, higher secondary and high schools respectively remain without higher/technical training qualification. Besides, most geography teachers are confronted with varied problems and, as such, more than 12%, 16% and 13% of teachers in colleges, higher secondary and
high schools are not satisfied with their profession, and majority of them do not feel satisfied with the amount of the salary they are paid. It has also been detected that many of the geography teachers in high schools do not have specialisation in the subject even at the degree level.

Based on the interview results of 35 degree college students, 45 higher secondary school and 320 high school students, it is found that most of the students could not attain maximum possible knowledge of the subject. Their skills are less developed and their attitudes towards the subject is not healthy. On the other hand, the students particularly of Mission. Mission model and private English schools possess better knowledge of the subject with high degree of understanding but their skill and attitudes towards the subject are less impressive.

Low educational qualification, attitudes and skill of teachers; lack of geography rooms, equipments and teaching aids; low social value of the subject; poor economy and low educational qualification of guardians; less guidance by the guardians and shortage of learning materials are the important factors that make students less interested in the subject.

Post Graduate Teaching and Geographical Researches

In the early twentieth century, the teaching of geography in India was started by the British-trained geographers who were responsible for superimposing the colonial attitude and distribution concept while completely neglecting the role of processes responsible for the pattern. It was only in 1920 that the teaching of geography in India at the graduation degree started at Lahore under University of Punjab and teaching of the subject at the post graduate level was first started at Aligarh in 1931 with establishment of the first full fledged Department of Geography.
At the time of establishment of Manipur University, there was no facility for teaching geography at the post graduate level. It was only during 1984-85 that geography was introduced at the M.A./M.Sc. level under the Department of Earth Sciences (composite department of geography and geology). With the separation of Geography as a full-fledged department from the Department of Earth Sciences in October 1992, much development have taken place. By acquiring a good well-finished building: the department has two main lecture halls, conference hall, remote sensing laboratory, offices and store room. Now the department is providing instruction to 20 post graduate students every year with varied branches of the subject including geomorphology, remote sensing and resource evaluation, settlement geography, agricultural geography, regional development and planning etc. However, the department is not free from the problems. The present faculty size with four members is too small; teaching methods are restricted to lecturing only. Teaching aids and equipments available are inadequate. Specialisations offered to the students are very few. The department still has no museum and library of its own. Though the department provides a wide range of geographic research facilities for the award of degree of Doctor of Philosophy, the average number of Ph.Ds. produced per annum is quite meagre. The 17 theses submitted till the end of 2000 show certain degree of diversification but still research studies have not been taken up in many branches/disciplines of the subject. Major contributions are made in urban geography and regional development and planning (as these two branches share more than 47% of the entire research studies done so far).

Suggestion and Recommendations

1. Looking into the great pressure of population upon the existing size of educational institutions of various types, and in view of demands of future population, two more degree colleges each in Ukhrul and Senapati districts and one more in Tamenglong district may be established urgently.
b] Besides the existing higher secondary schools, every administrative subdivisions particularly in the hilly areas must be provided with one higher secondary school so that pressure of population on them and walking distance may effectively be reduced. Their establishment may strictly be done through the upgradation of well-equipped existing high schools wherever necessary so that huge amount of money required for the establishment of a new one may be saved.

c] Distance slab and walking distance is no more an essential consideration for location of schools except in the remote rural and hilly areas since a good number of Mission. Mission model and Private English schools have their own pick-up services besides local school services. Therefore, lower level schools (primary to high schools) may be established if necessary based on average population size served by them. Therefore, on priority basis, hilly districts except Churachandpur require more high schools whereas valley districts of the state as a whole require more middle and primary schools.

d] Since a good teacher-taught pattern in the university, colleges, high/ higher secondary schools, middle schools and primary schools are found (1:15, 1:10, 1:21, 1:18 and 1:20 respectively), no further employment of more teachers are required.

2. [a] Every high school must be provided with a separate R.C.C. geography room/museum with enough teaching materials and audio-visual aids. The existing geography room/laboratory of degree colleges and higher secondary schools must be expanded with more scientific teaching aids, preferable furniture and equipments to a specially designed new RCC building. A separate library may be recommended for this level. Every kind of room amenities must also be provided.
[b] The geographic text and reference books must be made available to the needy students in time.

[c] At least the undergraduate departments of geography in the colleges should maintain a mini-weather observation station and observation of daily weather condition may be carried out by the students.

3. Suggestion for the Teachers

[a] The geography teachers must be well aware of students’ physical, mental and psychological conditions and needs and must develop certain values, skills and interests in himself like –

   i] knowledge of aims and objectives of geography teaching and philosophical outlook towards the subject

   ii] interest in outdoor observation and ability to lead

   iii] ability to use material aids according to the requirements of the lesson

   iv] ability to handle the geographers’ tools: maps, charts etc.

   v] developing interest in reading geographical journals, magazines and other books in order to enrich personal knowledge, and

   vi] use of library periodically.

[b] In order to make geography teaching more effective, the teacher should formulate suitable strategies including teaching framework and teaching methods before going to the class (as shown in Fig. 8.1). Field study should be used extensively as a teaching method and not only to stimulate the child’s mind but also to develop the child’s mental abilities like creative, critical and analytical thinking. For improving the teaching-learning process, educational/information
TEACHING FRAMEWORK MODEL

- Topic or Subject content
  - Learning objectives, Terminologies, concepts etc.
    - Pre-test to know student's potential and background
      - Teaching/Learning activities with required teaching aids
        - Sequential Summary of Lesson
          - Evaluation (Both formative and summative)
technologies should be used as a continuous support. Stimulus-response (S-R) associanism and Gestalt-field theories or model should be employed while teaching geography lessons as these are the newer psychology of learning resulted from modern experimental work.

[c] Geography teachers must go for professional training regularly as the quality and content of syllabi are an ever changing proposition.

[d] They must develop a positive attitude towards the subject in terms of teaching and proper help to the students.

4. **Suggestions for the Students**

[a] Students of geography must know the true concept and meaning of the subject as inquisitive learners.

[b] They must have a positive attitude towards the subject in terms of its status and importance of learning it for the development of natural resources, socio-economic development, national integration and social harmony.

[c] In order to develop competence, they must specialise in the selected field of their study.

[d] It is also essential that a student of geography should learn to understand and use the concepts and methods of the related disciplines, both social and systematic.

[e] Besides acquiring knowledge, the students of geography should also develop understanding and skill through model teaching programme including maximum information and knowledge about new facts and findings.
5. **Suggestions for Society and State**

Here the term 'society and state' includes all those who affect education in any way.

[a] Parents should help, guide and initiate their children in learning geography.

[b] To improve the quality of geography teaching particularly in schools, only trained and qualified teachers who have specialised in the subject at the degree level as well as who possess a deep knowledge of the subject should be appointed and given geography classes.

[c] The appointment of teachers, particularly for schools, must be made through a State Education Service Commission. An assessment of teaching skill of the candidates may be made compulsory as part of screening test besides written test and interview. B.Ed. or equivalent degree must be made compulsory educational qualification for teachers.

[d] Frequent refresher and orientation courses must be given to the teachers regularly so as to improve the quality of teaching.

[e] Like the science teacher, the geography teacher at the school should be given less number of periods so that he may get time to prepare teaching materials, aids etc.

[f] Necessary arrangements for allocation of separate funds may be initiated for the creation and improvement of geography rooms - their infrastructure, equipment and teaching aids both at the school and college levels.
Strategies should be adopted to check and minimise the pressures on teachers in regard to admission, better results, etc.

To improve the social status of the subject, the government may provide special opportunities for employing geographers in various professions, such as consultants for location of industries, industrial raw materials, marketing, town planning; regional planning; agricultural planning, location and distribution of crops, marketing. consultants in road planning, military services etc.

6. Suggestions for Improvement of Geography

The scope of the study of geography should be widened in its relation to zoology, botany, geology, geophysics, geochemistry, mathematics, climatology, seismology, oceanography, mountaineering etc. Every undergraduate department of geography in the colleges should have a number of sections or wings properly manned and fitted for training the youth in diverse disciplines, so that these departments in the colleges in the state may in future cater to the manifold needs of the state and the country. In this regard, the Manipur University through its Post Graduate Department of Geography has to play a crucial role.

The courses offered should show theoretical as well as social concerns so that both learning of theory and its application to solve problems of Indian society go together. Stress has to be laid on implications of theoretical development for decision making.

The courses developed should have an employment generating thrust so that geographers of tomorrow can become consultants, policy makers and planners.
[d] There should be regular workshops and teachers training programme at the advanced centres in Geography where some of the best minds could train youngsters to become better teachers. The fundamental ideas in geography is being shown in the form of chart in Fig. 8.2.

7. **Suggestions for the Post Graduate Department of Geography, Manipur University**

[a] In view of the future, the existing building of the Geography Department need extension for varied purposes like composite library-cum-museum, remote sensing laboratory, cartographic laboratory, toilet complex etc. The north-western end backyard which remain unused may be planned for a mini-rock garden showing varied landscape.

[b] The department urgently requires **more qualified faculty members** with at least two professors.

[c] The department needs sufficient equipments and teaching aids for effective teaching.

[d] The university authority may kindly take a decision for the creation of an Advanced Centre of Studies in Geography as an independent wing of the Post Graduate Department of Geography.

[e] This post graduate department must be equipped with geographic information system (GIS) and internet link-up so that it may become one of the best centres for post graduate teaching and researches in geography in the entire North-East India.
FIG. 82. FUNDAMENTAL IDEAS IN GEOGRAPHY

After Lawrence Senesh
More diversified researches have to be carried out to enlarge the frontiers of geographic knowledge.

The research students may take care while choosing the research problems/topics, so that the researches done must suit and serve the immediate social and environmental needs of the state and its people.