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Chapter – VI

SUMMARY, CONCLUSION, SUGGESTIONS AND RECOMMENDATIONS

6.1 Summary:

For the development of technical education in Manipur effort have been made from the past several decades; it is one of the most important factor that lead the students of Manipur to educate themselves and acquire the knowledge, skills and training in various technical courses which enable to produce adequate number of skilled and trained manpower with efficiency and quality.

The present study has highlighted the developmental trend of Technical Education in the State of Manipur. Two districts, Imphal East and Imphal West were selected for the study. The reason for selecting these two districts was the fact that Technical Institutes in Manipur were mainly confined to these two districts of Manipur. The study explores the types of technical institutes existing in the State, available institutional facilities, courses/trades offered, finance, institutional administration and management, its progress, achievement/output and the problems, the constrains, the hurdles faced and come across for the development of technical education in the state are studied.

The study was made with five objectives to find out the development of Technical Education in Manipur, they are: to trace out the growth and development; to evaluate the infrastructure and manpower facilities; to compare educational facilities available in the eight technical institutes; to study the budget, fund allocation and expenditure from plan and non-plan and to explore
The present study was classified into six chapters keeping in view of the above objectives. The first chapter was devoted to study of the background information of technical education in India and Manipur, its present status, the geographical, demographic, literacy and education structure of the state Manipur. The Second Chapter reviewed the relevant studies made in the field of technical and vocation education to enable to link up what was studied and what is to be studied which provides an up-to-date information. The third chapter was method and procedure of the study. The fourth chapter explores the progress of the eight technical institutes under study institution wise. The fifth chapter was analysis and interpretation of the whole problem. Analysis of the study was made with hypothetical assumptions and framed works, also with statistical applications. And the last chapter six was on summary, conclusion and suggestions for improvement of technical education in the state with a few recommendations.

Though Manipur has some good number of technical institutions after Assam and Tripura of the North East States, yet in regard to development of water resources, electric power generation and utilization of mineral resources is far behind others States. There is hardly any prospect for self-employment as there is no medium or large scale industry besides the existing small scale industry in Manipur. If the recommendation of the Working Group of Vocational and Technical Education in Manipur are implemented and Science and Technology are harnessed to the productive process, there will be faster technological advancement and industrial development in the State than technical education in Manipur may make progress.

From the finding of the study technical education in Manipur has made some progress with the attention and emphasis given by both the State and Central Government for the development of technical institutions in the State. As
a result an engineering institute of National importance, National Institute of Technology (NIT) was established in 2010 to cater engineering education to the needy students of the state. Government has planned to upgrade the NIT Manipur to deem University in near future. These will opportune the engineering students to get higher technical education up to Post-Graduate and Research Programme. The state technical institutions has many problems regarding lack of quality infrastructure, equipment, library facilities, curriculum, shortage of trained and skilled teachers, poor management and administration of the technical institutes limited courses/trades and more fund is require for further expansion and upgrading the existing technical institutions. All these hinder the development and progress of Technical Education in Manipur.

6.2 Conclusion:

The growth of technical education in Manipur seems to be slow and it seems to be still in the stage of infancy. The state is industrially backward state with excessive reliance on agriculture. There are several limitations for expansion of this sector such as dominance on the few existing technical institutions with the limited courses and trades provided. The state has no engineering institute which provide post-graduate and research programme. In some of the institutes there seems to be poor management and administration which is also one of the factor for slow progress of the institute. Though technical education plays a very significant role for the social and economy development of a state, its development has been hampered by several factors both internal and external.

Conclusions drawn from the current study are highlighted objective wise below the following:

**Objective One - Growth and Development of Technical Education in Manipur.**

(i) Maximum number of technical institutions is established during late 1980s.
(ii) At present there are twenty technical institutes under state and central government which impart semi-skilled engineering and engineering courses at certificate, diploma and degree level.

(iii) Maximum of the institutions are situated in Imphal West and Imphal East districts of Manipur. Imphal West has ten technical institutes and Imphal East with three technical institutes at certificate, diploma and degree level. The remaining seven districts of Manipur have only one ITI each.

Objective Two and Three - Infrastructure and Manpower facilities available in eight Technical Institutes and its comparison in educational facilities available.

(i) Except CIPET, Imphal, all the other seven technical institutes has RCC (Pucca) buildings for academic purposes. CIPET has semi-pucca buildings for both academic and hostel.

(ii) ITI Takyelpat has no girl hostel but under construction. The rest institutes provides both boys and girls hostel.

(iii) CIPET provides the least courses with two programmes while ITI provides maximum programme of 23 trades.

(iv) CIPET has the lowest intake capacity of 100 seats and ITI with the maximum intake of 392 seats.

(v) In regard to faculty strength, it is found that GOPOLY has maximum faculty strength with 176 teaching, non-teaching and technical staffs and CIPET has the minimum with 33 teaching, non-teaching and technical staffs.

(vi) Among the eight institutes, ITI, Takyelpat teachers has the minimum educational qualification while COA has the maximum educational qualification.
(vii) The year 2004 has the highest pass percentage of 86.62%. Female pass percentage is higher than that of male students almost in every academic year except in 2002 and 2004. Among the eight technical institutes CIPET, Imphal has 99% placement and ITI Takyelpat has the minimum of 25% placement within and outside the state of Manipur.

**Objective Fourth** - to explore the problems of technical institutions in Manipur which are encountered by the students, teachers and heads of the eight technical institutes:

(i) CIPET and ICM campus does not meet the All India Council for Technical Education (AICET) norm. The two institutes have faced an acute problem of land area.

(ii) Almost all the eight technical institutes students has faced varied problems such as inadequate infrastructure facilities, shortage of skilled teaching and technical faculty, lack of advance technological equipments and chemicals, no provision of internet facilities to the students, irregular organization of seminars on related topics, unattractive courses and programmes etcetera.

**Objective Five** - to study the budget, fund allocation and expenditure from plan and non-plan.

(i) Out of the eight technical institutions, two are funded by the State Government, five by the Central Government and one institute funded both by State Government and UGC.

(ii) Budget allocation trend increased dramatically during the financial years considered i.e. 2002-03 to 2011-12 except for the years 2003-04.

(iii) Budget expenditure is comprehensively less than the budget allocated almost in every financial year considered.
(iv) Among the eight technical institutes NIELIT Imphal has faced problem on financial matter but it was made up by taking projects from time to time and through income generated through academic activities.

**Main Findings**

Main findings of the present study are short listed below:

(i) Limited number of Technical Institutions which give technical education in Manipur at degree level. No single post-graduate engineering institute in the state so far.

(ii) Lack of more advance and diversified courses.

(iii) Lack of infrastructure and educational facilities. The available infrastructure and educational facilities in the eight technical institutes were not upto the National Standard.

(iv) Low rate of female enrolment than male enrolment almost in all the eight technical institutes in every academic session.

(v) Shortage of trained and skilled teaching faculties for the course of study and practical work.

(vi) Irregular organization of orientation, seminars, workshops programme for the teachers and the students.

(vii) Sufficient budget allocation by the concernment Government for institutional and academic development. Budget expenditure almost in all the technical institutes under investigate are lower than budget allocation (including institution generated funds).

(viii) Poor Management and Administration in some technical institutes which hampered the progress in some technical institutes.

(ix) Unsuitable examination system, irregular conduct and declaration of examination in some institutions.
The students of technical institute under Central and Autonomous, functioning under the aid of Central Government of India have good academic performance with high pass percentage than that of technical institutes under State Government.

There is probably mismatch between the available manpower and the required manpower of technical education in Manipur. Today’s requirement is not of general education manpower but of technical manpower. There is need of focusing on technical education in Manipur. The actual demands of Technical Education by the students in particular and the public in general and the activities undertaken by the Government towards development of Technical Education have a wide gap. There is no satisfactory progress of Technical Education in the State. There is need of establishing more institutions of technical education, upgrading the existing institutions in post graduate and scaling up research in cutting-edge technologies, opening of more advanced courses of modern technology. Necessary steps should be taken up for qualitative improvement by providing adequate funds and infrastructure facilities including extension of campus to meet AICTE norm, digital library, workshop, practical workroom, laboratory, skilled teacher/instructor, advance teaching aids, high technological equipment, campus Nationalised Bank, post office, health care centre facility, transport, etcetera to meet the manifold problems of technical institutions in Manipur. Manipur State Council of Technical Education and Directorate of Technical Education should also be set up to look after the proper functioning of Technical Institutions in the State and to make Plans and Policies for the development of Technical Education to cater the needs of the people and develop human resources for skilled, efficient manpower of the state, if the State Government has taken up such measures, technical education would contribute to such progress, both by reducing unemployment, through creating employment in the fields of vocational and technical specialization and self-employment, by engendering a higher propensity for labour force and technical participation at the
secondary schooling, improving productivity, and correspondingly resulting in higher graduate earnings, it will be a boon to the people of Manipur.

Likewise that of American educational structure of giving institutions autonomy in functioning, administrating, framing curriculum and syllabus, fee structure, examination etcetera if the educational institutions of India too has given autonomy than some of the many fold problems could be solved to some extent. President Pranab Mukherjee in his speech on 10th Annual Convocation of the National Institute of Technology (NIT), Kurukshetra held on 9th April, 2013 has rightly mentioned that quality, affordability and accessibility should become the mainstay of higher education system. He said the universities, engineering colleges and research and development centers should be the hotbeds of innovation. He also pointed out that “our pool of qualified manpower will be the backbone of this new age”. Here the importance of innovation in higher technical education, better understanding of various problems and issues should be acknowledge by the policy maker and take up progressive steps to fulfill the requirement of technical education is very much needed in this hour to compete in the technological advancement of the global scenario.

Technical Education is one of the most crucial components of Human Resource Development with great potential for adding value to product and services and for improving the quality of life of the people. It promotes not only higher technical education but also the economic growth and human resource development of the nation. Technical education is actually an effective instrument of social, economic and technological change. It has emerged to meet the rapidly changing technological needs of the society. As per a recent Forbes Survey, only three Indian companies have been listed amongst the world’s most innovative companies. This number will increase if the process of innovation is made a permanent feature in our institutions of learning Mukherjee added.
Considering the very need of expansion of more quality technical institutions and developed more skilled and trained manpower, in the 11th Plan, 10 more National Institute of Technology (NIT) were added to enable one each NIT in every states of India to cater technical education to the students of India. Mukherjee also said, the government intends to establish more Central Universities in the 12th Plan with priority also to be given to governance reforms. More institutes of National importance such as Indian Institute of Technology (IIT), NITs etcetera were to be established further. This will be great help especially to the people of North Eastern Region who have high motivation to learn higher technical education and acquired more knowledge and skills of technical education. The data and materials of this study has been compiled with the hope and belief that it may help in further improving and strengthening the Technical Education System in Manipur by reforming the existing technical education structure and setting up State Board of Accreditation to look after the functioning of technical institutions and give assessment for quality development in the state.

6.3 Suggestions:

In the light of the findings of the present study the following suggestions may be submitted for consideration to minimize the problems investigated in the study:

(i) The number of quality technical institutions should be increased to meet the demand of the students for technical education.

(ii) New advanced courses should be added to meet the ever changing technological need of the society and driven interdisciplinary research and need to scale up research in cutting edge technologies.
(iii) Adequate fund should be made available by the concerned Government for infrastructure, equipment and facility development.

(iv) Government both Central and State should take up immediate steps to make progress in the field of technical education through proper planning.

(v) Orientation, Training Programme, Workshop, Seminar etcetera should be organized from time to time to update the knowledge of technical skills for teaching, non-teaching and the students.

(vi) Filling up the vacant post of teaching and non-teaching faculties.

(vii) Good Administrator and Managing Committee of technical institutions.

(viii) Improving the quality of technical education and make avail national and international standard equipment and facilities. Provision of regular supply of electricity and water.

(ix) Most urgent need for the development of technical education in Manipur is to have a Directorate of Technical Education and Training Department for proper guideline to the administrator of technical institutions.

(x) To set up State Board of Accreditation to assess the functioning, standard, examination system etcetera of technical institutions in Manipur and give accreditation.

6.4 Educational Implications:

The inferences of this study have their usability for (i) Institution Administrator (ii) Technical Education Seeker and (iii) The Government.

(i) This study points out various policies and programmes which could be taken up by the administrators to become an efficient administrator for the progressive work of the institution.
(ii) Technical education seekers and learners can use the findings of this study to choose the institution and courses which they like.

(iii) The Government both Central and State can refer the institution profile and take up necessary steps for the development of technical education in the state.

6.5 **Recommendations for Further Researches:**

The above observation shows that qualitative research in technical education need to be under taken on a much larger scale than what it is now. Attempts have been made in the present study to investigate the development of technical education in Manipur. The study has opened up some new areas; it will help the later researchers in this field, since technical education is one of the burning components of education programme of technology. Research on the status of technical education is of great importance. The following are some of the suggested problems based on the findings of this study which need more attention and further investigation in the field:

(i) The study may be under taken to the administrative and management problems of all technical institutions in Manipur.

(ii) The study may also be taken up on Professional efficiency of technical institutions teachers.

(iii) Development of Engineering Education in North East India.

(iv) Role of Government towards the development of Technical Education in North East India.

(v) A comparative study of students’ Academic Performance between Engineering Education and Management Education in Manipur.

(vi) Technical Education: A comparative study between Manipur and other North East States.
(vii) Students’ Attitude towards Technical Education in North East Region – A comparative study of Manipur and Assam.

(viii) Development of Information Technology (IT) Education and its role in Technical Education Programme in Manipur.

The above given areas if connected with various research topics related to Technical Education be taken up on priority basis with quality research, Technical Education, its problems, prospects, implication, development etcetera will enable to find out its position and help to develop qualitative and quantitatively in the state as well as in the country by making proper planning and policy by the policy maker for its development and economic development of the State in particular and the country in generate.