CHAPTER XVIII

PROGRESS OF HIGHER EDUCATION
CHAPTER XVIII

PROGRESS OF HIGHER EDUCATION

General Education:

In the post independence period growth in the number of colleges and enrolment in the entire North East India was very rapid. The number of colleges of general education increased from a mere 17 in 1950 to 190 in 1977(1) and enrolment increased from 6498 in 1950 to 1,15,517 in 1975(2), that is, enrolment increased by more than 17 times. A spectacular increase took place in the quinquennium 1960-65 when the number of colleges increased from 28 to 87 in North East India excluding Tripura. The enrolment during this period increased from 24,037 to 41,805. This was mainly due to establishment of colleges in rural and semi-urban areas through public donations with teachers who obtained the Master’s degree in different subjects. The Gauhati University produced altogether 3510 Master’s degree holders in different subjects of general education during the period from 1948 to 1965(3) and a majority of them were employed in the newly established colleges.

(1) Appendix Table 3.
(2) Table 4 A and Table in previous page.
The growth of colleges and institutions of general education in Tripura is shown below:

**Tripura**

**Growth in collegiate education**

<table>
<thead>
<tr>
<th>No. of colleges for General education</th>
<th>Enrolment</th>
<th>Total Direct Exp. Rs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boys</td>
<td>Girls</td>
<td>Total</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>1950-51</td>
<td>2</td>
<td>-</td>
</tr>
<tr>
<td>1955-56</td>
<td>2</td>
<td>-</td>
</tr>
<tr>
<td>1960-61</td>
<td>2</td>
<td>-</td>
</tr>
<tr>
<td>1965-66</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>1968-69</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>1973-74</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>1974-75</td>
<td>5</td>
<td>1</td>
</tr>
</tbody>
</table>

*Source: (a) Education in Tripura, Statistics Section, Education Directorate, Govt. of Tripura, Agartala, 1975.*

*(b) Education in India, 1955-56,'60-61 1967-68.*

*(c) Not available.*
The number of graduates in general education produced in selected years from 1950-51 is shown below:

Output of graduates by courses

<table>
<thead>
<tr>
<th>Year</th>
<th>B.A.</th>
<th>B.Sc.</th>
<th>B.Com.</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1950-51</td>
<td>8</td>
<td>-</td>
<td>12</td>
<td>20</td>
</tr>
<tr>
<td>1955-56</td>
<td>37</td>
<td>21</td>
<td>12</td>
<td>70</td>
</tr>
<tr>
<td>1960-61</td>
<td>147</td>
<td>36</td>
<td>38</td>
<td>221</td>
</tr>
<tr>
<td>1965-66</td>
<td>145</td>
<td>38</td>
<td>45</td>
<td>226</td>
</tr>
<tr>
<td>1968-69</td>
<td>762</td>
<td>149</td>
<td>184</td>
<td>1095</td>
</tr>
<tr>
<td>1970-71</td>
<td>466</td>
<td>126</td>
<td>47</td>
<td>639</td>
</tr>
</tbody>
</table>

The number of students that passed the degree examination in 1950-51 was only 20 for an enrolment of 702 in two colleges. This number rose to 221 for an enrolment of 1381 in 1960-61 and to 1095 for an enrolment of 4454 in 1968. The number of graduates declined to 639 in 1970-71. The enrolment in colleges continued a steady increase from 1950-51 to 1974-75. The main reason for the growth of enrolment in higher education is mainly due to establishment of colleges in all the district headquarters and growth in direct expenditure on higher education from
Rs. 1,55,876 in 1950-51 to Rs. 47,66,810 in 1974-75 and larger number of scholarships. In the year 1974-75 alone Rs. 4,41,910 was paid as scholarship by the State Government.

Progress of Women's Education:

In 1836 Rev. Brown and T. Cutter of the American Baptist Mission came to Assam. Cutter's wife founded a school at Sadiya for Girls which was the first attempt at girls' education in North East India. The educational policy laid down by the Despatch of 1854 laid stress on the spread of female education. But this policy was not implemented. In 1865 Mary Carpenter, of a great English Social Reformer came to India and found that the great obstacle for the spread of female education was the absence of female teachers. So she suggested the establishment of normal schools for females. When some lady teachers were available schools for girls were established in different parts of Assam. In 1870, there were 8 girls' schools in North East India, 5 in Kamrup and one each in Darrang, Nowgong and Lakhimpur (4).

The Indian Education Commission, 1882 discussed the problem of women's education and suggested that liberal grants should be given to girls' schools; there should be fee concession to girl students; that scholarships should be given to them; and finally a simple curriculum should be prescribed. Some of these recommendations were implemented (5). But progress of women's education was very slow.

In 1904, the Government of India in their Educational Policy Resolution recommended that Government should spend more on women's education. The Government Resolution on the Educational Policy, 1915 laid down certain principles for the expansion and improvement of women's education (6).

On 12 October 1915, a memorial on women's education was presented to His Majesty's Secretary of State for India pointing out the deplorable condition of girls' education. While the Home Government was anxious to do something, they

(5) Rawat: History of Education; P. 186.
(6) Nurulla and Naik: Education: History of Education in India; p. 575.
could not take any action because of the constitutional reforms contemplated. In 1919, the Government of India enunciated its policy on girls' education. The result was that there was steady progress in girls' education.

In spite of all these efforts, the progress of women's education was lopsided. Both the sexes were not benefitted equally by the educational facilities provided by Government. Custom, tradition and prejudice were greatly responsible for this state of affairs. The author of the Census report, 1881, recorded that respectable women who could read and write would reply in the negative when they were asked whether they were literates. It was considered as not respectable for a woman to write though her ability to read was not a blot on her character. It was against this prejudice that women had to fight. The recommendation of the Indian Education Commission, 1882 that an equitable proportion of the local funds should be set aside for girls' education was practically a dead letter. Therefore the percentage of literacy among women was very small.

Various factors were responsible for the lopsided development of education of females. First, subsidies were granted for the opening of boys' schools in all villages
with a population of five hundred and more but not for girls' schools. While the accepted policy of the Government was introduction of compulsory education for all children of the school-going age, Muslim girls in particular and girls in general were excluded from the scheme of compulsion. In other words, compulsion for girls was not treated as a matter of fundamental importance. Thirdly, the employment of male teachers in girls' schools impeded the progress of girls' education. Women teachers understand their sex better and can deal with all problems concerning girls' education with better knowledge, tact, and patience. Further, they can be on more intimate relationship with their pupils and can advise, stimulate and inspire them in many ways not open to men. Above all, schools staffed by women teachers would command the confidence of the parents and induce them to send their daughters to school. It is true that the supply of women teachers was not equal to the demand and when they were available they hesitated to take up employment in schools in far off places. Above all, the directing and the inspecting agency consisted of Europeans and Anglo-Indian ladies and this constituted an obvious barrier to promotion of girls' education and for the realization of the ideal. Non-Indians, however qualified in other ways would not be able to meet
permanently and adequately the spiritual and mental needs of the Indian ladies.

Besides this, parents in North East India did not like to invest money in the education of their daughters. They considered their daughters as transitory members of the family. In almost all the families the birth of a girl is generally an unwelcome event. Almost everywhere the son is valued more than daughters; because he is a permanent member of the family. Economically he is an asset to the family. The main aim of the parents was therefore to dispose of their daughters. As a consequence, the percentage of literacy among women in 1901 was only 0.59 percent of the females in North East India. But in 1971, it was 19.3. It may also be stated that before independence female literacy was below 2 percent. After independence, there was tremendous expansion of female education in North East India.

District wise, the percentage of literacy among females was highest in the Mizo Hills - 51.24 percent, followed by Sibsagar with 40.76 and United Khasi and Jaintia Hills district with 37.5. The least literate district was the United Mikir Hills and North Cachar Hills.
with 23.99 percent. The primary factor for the high percentage of literacy among females in the Hill districts was the Christian Missionary activity in the field of education.

In the Mizo Hills according to 1961 Census female literacy was the highest not only in North East India but in the whole of India except in Kerala where it was slightly more than in Mizoram.

Among the Plains districts of Assam Sibsagar is the most literate so far as females are concerned. And the least literate is Goalpara. This is a notable fact that where the Muslim immigrants are greater in number the literacy is very small. As regards the progress of higher education among females we find that there were only three girls colleges, St. Mary's College, Lady Keane Girls' College and Handique Girls' College till 1948. In the post independence era 13 girls' colleges were established in the whole of North East India. These sixteen girls' colleges are distributed over Assam 11, Manipur 2, Tripura 1 and Meghalaya 2. There is no girls' college in Nagaland, Mizoram and Arunachal Pradesh. Girls are admitted in boys' colleges except in a few. The enrolment of girls' in boys' colleges is substantial. The reason is obvious. Most of the boys' colleges are better equipped with varieties of courses and
parents do not object to admit girls in such colleges. Besides girls' colleges exist only at the district and State head quarters.

Let us now make a statistical approach to the problem of higher education among girls. In 1948 only 65 girls appeared for the Bachelor's degree examination in Arts and 30 obtained the degree. In 1974, the number of girls who appeared at the same examination increased to 2,586 (Gauhati 892, Dibrugarh 984, NEHU 710). The increase is phenomenal. The growth in the number of girls who appeared and passed the various stages of education under Gauhati University is shown in Table VIII. While 213 girls appeared in the Intermediate examination and 149 passed in 1948, the number rose in 1975 to 5161 appeared and 2147 passed. Similarly for the first degree examination, in 1948 only 70 girls appeared and 35 passed. While in 1975, 7302 girls appeared and 2101 passed the same examination. The growth of higher education among women in Tripura is shown in Table IX. The enrolment of girls at the Pre-University and degree stages maintained a progressive increase since 1950 to 1975.

Again in Gauhati University there was only one
girl in 1950 who appeared and passed the Master's degree examination. In 1975 a total number of 400 girls appeared in the same examination and 223 passed. The faculty-wise distribution of girls shows that the number is largest in the faculty of Arts. The reason for this is that a large number of girls in each stage of education appear as private candidates without being admitted to colleges. In the case of boys this facility is not available up to the first degree standard except for those who are teachers in schools. At the post-graduate level more girls are admitted in certain subjects like Education. Gauhati University was one of the first Universities in the Country to introduce Education as a separate discipline at the post-graduate level. The number of girls in that Department has always been greater than the number of boys. In 1974 out of 44 students 33 girls. Besides Education, the Bengali department has more girls than boys. In the Assamese department the number of girls was 44 out of a total enrolment of 142 in 1974. In the Science faculty the number of girls is not large as the facility for private study is not available.

In recent years some girls have entered Law colleges. But their number is small. During the period
from 1948 to 1974 only 14 women passed the LL.B. Examination. During the same period 1488 boys passed the LL.B. examination.

In the case of medical education a substantial number of girls passed the M.B.B.S. examination. In 1958 Assam Medical college, the only medical college in North East India had 32 girls. The enrolment of girls in the four Medical colleges in the region rose to 306 in 1975.

It is also interesting to note that girls have entered the Engineering Colleges. For the first time in 1965 girls were admitted in the Assam Engineering College at Gauhati and in 1970 one girl passed the Bachelor of Engineering examination. The number of girls would have risen if courses in subjects like architecture were available.

In the field of research girls do undertake research but most of them discontinue it for obvious reasons. From 1948 to 1974 only six women were awarded the degree of Doctor of Philosophy. During the same period 127 males were awarded doctorates.
From this brief survey of the progress of higher education among women in North East India we come to the conclusion that progress has been satisfactory to an extent. More women are qualifying themselves for employment. The impact of women's education is noteworthy. Successive generations of children are educated. Educated women contribute a great deal towards family welfare and economic upliftment. Finally higher education among women in North East India requires further incentive by way of provision for varied courses of study and financial assistance like scholarships.

Teacher Training:

For the first time in North East India St. Edmunds' College in Shillong started B.T. classes in 1936. In the following year B.T. classes were started in the St. Mary's College and a few girl students were admitted. The courses were affiliated to the Calcutta University. Students from North East India had earlier to go to Calcutta for the Degree of Bachelor of Teaching. Gauhati University started the B.T. course in its department of Education and Teacher Training in the year 1940. The Assam Government deputed 31 teachers of secondary schools from Assam including
areas now within Meghalaya, Nagaland, and Mizoram for the course. The number of teachers deputed to undergo the B.T. course progressively increased. The B.T. course started in the St. Edmund's college at Shillong was discontinued when Gauhati University established its department of Teachers' Training. The intake capacity of the department was raised to 150; but it was abolished in the year 1974-75 when the Assam Government started the B.T. college at Goalpara. The first B.T. college established outside Shillong was the post-graduate teachers' training college at Jorhat in 1959. In the sixties four B.T. colleges were established, at Silchar in 1962, Shillong in 1964, Gauhati 1967, Nowgong 1968 and in the seventies, Kokrajhar in 1971, Imphal in 1972, Goalpara in 1974 and Mangaldol in 1975. The post-graduate Training college of Jorhat and Goalpara B.T. College are Government colleges and the others are private aided colleges.

In Tripura five teachers' training colleges have been established; of these only the college at Asartala provides for the B.T. degree course of the Calcutta University. There is no teacher training college in Arunachal Pradesh. The number of students who appeared and passed the B.T. examinations in selected years after independence
In the following table:

<table>
<thead>
<tr>
<th>Year</th>
<th>No. appeared</th>
<th>No. passed</th>
<th>Percentage of pass</th>
</tr>
</thead>
<tbody>
<tr>
<td>1948</td>
<td>43</td>
<td>33</td>
<td>80</td>
</tr>
<tr>
<td>1950</td>
<td>12</td>
<td>8</td>
<td>70</td>
</tr>
<tr>
<td>1955</td>
<td>66</td>
<td>45</td>
<td>70</td>
</tr>
<tr>
<td>1960</td>
<td>124</td>
<td>104</td>
<td>84</td>
</tr>
<tr>
<td>1965</td>
<td>470</td>
<td>338</td>
<td>74</td>
</tr>
<tr>
<td>1970</td>
<td>690</td>
<td>315</td>
<td>45</td>
</tr>
<tr>
<td>1975</td>
<td>1365</td>
<td>667</td>
<td>49</td>
</tr>
</tbody>
</table>

In 1962-63, just before the establishment of the Board of Secondary Education in Assam, there were 940 High and Higher Secondary Schools with 1,63,327 pupils and 12,184 teachers in Assam(7). In Tripura in the year 1974-75 there were 121 High and Higher Secondary Schools with 23,043 pupils and 1,669 teachers of whom 1232 were trained. The intake capacity of the Training Colleges providing instruction for the B.T./B.Ed. Degree was 245 in the same year. The actual enrolment in 1974-75 was however 184 including 82 girls and 89 students passed the B.T./Ed. examination in the year (8).

(8) Synopsis of Educational Development in 1974-75, Education Directorate, Govt. of Tripura, pp. 39-41, 47
Looking at the results we find that till 1965 seventy to eighty percent candidates passed the B.T. examination. The percentage of successful candidates shows a steep decline from 1970 when the number of institutions all over the region increased.

Manipur has only one Teachers' Training College which was started in the year 1972. It had an intake capacity of 150 students with 12 teachers in 1975-76.

One Institute of Education was established in Mizoram in 1975 and a college of Education was established in Nagaland in the same year. Of these the Institute of Education in Mizoram is a Government college and the Nagaland college of Education is a constituent unit of the Hill University.

Thus the progress of teacher training in North East India is satisfactory.

Technical Education:

We have seen in an earlier chapter that the first Engineering college was established in 1955 at Gauhati.
Another college, Jorhat Engineering College, was established at Jorhat in Upper Assam in the year 1960. These colleges were affiliated to the Gauhati University. Affiliation of the Jorhat Engineering College was transferred to the Dibrugarh University in 1965. During the period from 1959 to 1965 altogether 865 students appeared and of them 560 obtained the Degree of Bachelor of Engineering (B.E.). Both the colleges are Government Institutions and teach courses in Civil, Mechanical and Electrical Engineering. In addition the Assam Engineering College provides a course on Chemical Engineering for the Bachelor's degree. In 1977 the college introduced post-graduate course in Civil Engineering with an enrolment of three students.

In 1971, 438 students appeared. Of them 297 obtained the degree.

In Tripura one Engineering College maintained by the Government exists. The enrolment in Engineering Course at the degree stage from 1965-66 to 1974-75 can be seen from the table below:
Enrolment in Engineering Colleges (9) -

<table>
<thead>
<tr>
<th>Year</th>
<th>Assam</th>
<th>Tripura</th>
</tr>
</thead>
<tbody>
<tr>
<td>1965-66</td>
<td>1072</td>
<td>323</td>
</tr>
<tr>
<td>1969-70</td>
<td>1152</td>
<td>201</td>
</tr>
<tr>
<td>1973-74</td>
<td>1008</td>
<td>-</td>
</tr>
<tr>
<td>1974-75</td>
<td>1064</td>
<td>(10)</td>
</tr>
</tbody>
</table>

The colleges in Assam serve the needs of the adjoining States and Union Territories of Meghalaya, Manipur, Nagaland, Mizoram and Arunachal Pradesh. It will be seen that the enrolment increased from 1965 to 1969-70 while it diminished in 1973-74 and 1974-75. The downward trend can be attributed to the inadequate employment prospects for the graduates and the limited number of courses offered. There is no provision for courses in industrial engineering, computer technology, metallurgical engineering, automobile engineering and architecture in North East India.


In 1974-75 there were 18 units of medium and large scale industries in the region; of these 6 were under construction. The large scale industries include sugar factories, paper mills, oil refineries including the petrochemical complex at Bongaigaon in Assam, jute mills, cement factories, hardboard factories, spun silk mill, cycle factory and distillery project. There are altogether 2953 units of small scale industries in North East India. These include food and beverages,豪邸y and garments, wood, paper, leather and rubber products, chemicals, glass and ceramics (11). These figures will increase with larger investments during the fifth and subsequent five year plans.

In 1977 a Regional Engineering College has been established at Silchar in Assam with financial assistance from the Union Government. Introduction of varied courses in the engineering colleges and provision for post-graduate and research facilities in selected branches will give a new dimension to technical education in North East India.

Progress of Medical Education:

For the first time in the history of North East India 85 candidates, 79 boys and 4 girls, appeared for the M.B.B.S. examination in 1952. Of them 35 passed the final M.B.B.S. examination which included 2 girls. So the percentage of pass was less than 50 percent. In 1960, the number of candidates that appeared for the final M.B.B.S. was 109 which included five girls. But the percentage was very good. Of the 109 as many as 95 including 4 girls passed the M.B.B.S. examination. That is, 90 percent of the boys and 80 percent of the girls passed the examination. In 1970, the total number of candidates that appeared for the final M.B.B.S. examination of Gauhati University was 91 and of them 48 passed the examination. The Gauhati and Dibrugarh Universities together produced a total of 3221 medical graduates, Gauhati 1801, Dibrugarh 1420 till March 1976. This number is quite inadequate for a population of 20 million in North East India.

The Universities awarded post-graduate degrees in medicine, surgery, gynaecology and other branches of medicine to a small number of graduates. Therefore the intake capacity of the three medical colleges in the region
requires increase and adequate facilities for both graduate and post-graduate studies in various branches of medical sciences should be provided.

Agricultural Education:

Before 1952 there was no examination in Agriculture or Agricultural Botany nor in Veterinary and Animal Husbandry. In 1952 the number of candidates that appeared for the B.Sc. (Agri) examination was 20. Of them 11 passed the examination. In 1960, the number increased to 44 and the number that obtained the degree of B.Sc. (Agri) examination was 34. In 1975-76 the number that appeared for the B.Sc. in agriculture was 66 and the percentage of pass was one hundred percent. The number that appeared for M.Sc. in Agriculture examination was 37 and all the 37 candidates passed from the Assam Agriculture University. The Gauhati University conducts a course of M.Sc. in Agriculture Botany and the number that appeared for the M.Sc. (Agri) was 23 in 1975 and 21 of them passed. The percentage of success in the examination was satisfactory. In the case of Veterinary and Animal Husbandry the number that appeared for the B.V.Sc. and A.H. examination was 15 in 1960. Of them
12 passed. In 1975-76 the number of candidates that appeared for the B.V.Sc. and A.H. was 69 and the percentage of pass was one hundred percent. For the M.V.Sc. examination of the same year there were 15 candidates and all of them passed the examination. After the establishment of the Assam Agriculture University there has been good progress in the field of higher education in Agricultural and Veterinary Sciences.

Research:

The Calcutta University which had jurisdiction over the whole of North East India till the middle of the present century was purely an affiliating University during the first four decades of its existence. Till 1891, therefore, there were no systematic facilities for research. In that year, some significant changes were introduced. It may be remembered that on the 9 February 1866, a munificent donation of rupees two lakhs was made to the Calcutta University by Premchand Roychand of Bombay. The interest from the endowment was awarded as scholarship to encourage the acquisition of knowledge and not for the advancement of learning. In 1869, however, the Senate of
of the Calcutta University decided that the studentship should henceforth be awarded for the promotion of research. The candidates for the award of scholarship were selected by an examination but the condition was that the candidate must at the end of the second year produce evidence that he had been engaged on original investigation. The candidate must submit a report annually. The annual value of the scholarship was Rs. 1400, awarded for a term of five years. Under this scheme several important papers were published.

In 1908, a further change was effected in the situation. The scholarship was split up into two. One was awarded for literary subjects and another for science subjects. Each scholarship was tenable for a period of three years. The examination for the selection of candidates was abolished. Instead, the candidates should submit a thesis on which he had already carried on investigation. The thesis was referred to a board of examiners. On the basis of the report from the Board, the Syndicate made the award. The successful candidate must submit a report annually to the syndicate. The studentship was continued if the report was satisfactory. Thus, the first person to promote research in North East India was that generous donor Prem Chand.
Roy Chand. Since 1903, various endowments were created for the promotion of research. First, in 1903, Raj Narain Mitra created an endowment for the promotion of original research in Indian Economics. Second, in 1908, the jubilee year of the Calcutta University, the Senate set apart Rs. 30,000 to establish the Jubilee Research Fund. From the interest of the fund two prizes were awarded every year for the promotion of research. Third, in the same year, Sarat Kumar Lahiri and Maharaja of Kasimbazar in 1922, Tarakanath Palit in 1913, Rash Bihari Ghosh and Onkarnath Deb and several others created endowments. Of all the endowments, the ones created by Tarakanath Palit and Rash Bihari Ghosh were the most significant ones.

Both of them placed at the disposal of the Calcutta University Rs. 25 lakhs. All these research facilities were available to any one in North East India. But no research degree was instituted by the Calcutta University till 1906. It was in that year that the degree of Doctor of Philosophy and Doctor of Science were instituted.

As long as the Calcutta University was an affiliating university, only a few individual scholars at isolated colleges conducted research, on their own, sometimes with admirable results. In the North East India, there was
only one Sanskrit scholar, Anandoram Baruah an Indian Civil servant. But there was no organized attempt to train students in methods of research and to develop schools of research at any university. It was in 1914 that Ashutosh Mukherjee founded the first post-graduate departments at Calcutta University and placed post-graduate research and training on firm foundation. Promising scholars from all parts of India were gathered for appointment as Professors. In a few years Calcutta University produced research work of high quality both in the humanities and sciences. Several of its Professors won international fame. All this research work was due to the hard work and enthusiasm of a few university teachers who worked with meagre grants, insufficient equipment and inadequate library facilities. There were practically no grants from the Central Government for fundamental research. Grants were given to a few university teachers by specialised agencies such as Indian Council of Agricultural Research. The situation with regard to scientific research in Universities and research institutions was very well summed up by Shanti Swaroop Bhatnagar. Professor Bhatnagar said,

Those familiar with the facilities provided by the modern laboratories in America or Britain would find it hard to understand the handicaps
that beset the scientific workers in India at every stage. Lack of equipment, lack of accommodation, long hours of routine work due to insufficient teaching staff and finally, the eternal want of funds are some of the problems that handicap science teaching and scientific research in Indian universities. These circumstances should not be lost sight of when assessing the work done in India. The Government of India have no machinery for the making of grants to the universities and research bodies for scientific work.

**Learned Societies:**

The foundation of learned societies for the promotion of research began in 1784. The oldest learned society in India is the Royal Asiatic Society of Bengal established in 1784. In 1914, it sponsored the Indian Science Congress for the discussion of research papers. Later on, several scientific societies have been established in the country but in North East India, there were few societies, not of significant importance. The Historical and Antiquarian Studies, and the Kamrupa Anusandhana Samity were the only research societies before independence. After 1947, several research societies were established. They are the Assam Science Society which holds its annual sessions at different places and discusses 'original papers'. Besides there are a few other associa-
tions like the North Eastern Geographical Society, Assam Anthropological Society and the Assam Political Science Association.

The Regional Research Laboratory at Jorhat set up by the Council of Scientific and Industrial Research is engaged in fundamental research in science and the Toklal Tea Research Station has organised research facility in tea technology. In 1977, the Indian Council of Social Science Research has established a branch at Shillong for the whole of North East India, with a view to promote research in North East India in social sciences. Besides these bodies each University has a research council for the promotion of research in all disciplines. The U.G.C. has placed at the disposal of each university a sum of Rs. one lakh per annum for the purpose. The research council calls for schemes and distributes the amount among the departments and individual teachers for the promotion of research. Besides the U.G.C., the Indian Council of Agricultural Research and the Council of Scientific and Industrial Research also promote research by granting fellowships, grants, and the supply of technical expertise. A number of research schemes are under investigation. At present there is no problem of money. The problem is of
Before 1947, there was not much progress in research in North East India because there were no facilities of organised nature. After 1948, universities were established and organized facilities were provided. Before 1947 some persons in search of research degrees went to Calcutta or London; but their number is very small. Even after the establishment of Gauhati University in 1948, there was not much research activity till 1960. From January 1948 to 30 June 1977, the number of persons who were awarded the degree of Doctor of Philosophy was 275,238 by Gauhati University and 35 by Dibrugarh University. Of them 140 belonged to the Science Faculty and 133 to Arts and Commerce Faculties. Among the science subjects the break up is as follows. Physics 27; Botany 25; Agricultural Botany 12; Chemistry 21; anthropology 18; Geology 10, statistics 8; medicine 6; geography 5, mathematics 6 and zoology 2. Among the Arts subjects the largest number is in Political science, then comes Assamese, history, economics and so on. In philosophy there are only two doctors of Philosophy. Thus among the science subject Geography did not
make much progress in research; so also Mathematics and Zoology. Among the Arts subjects, languages occupy a significant position. Assamese, Bengali, English and Sanskrit have produced as many as 50 Doctors of Philosophy. Of the rest 84, 21 belong to Political Science, 18 to History, 15 to Economics and 14 to Education. Thus there was considerable progress in research in the universities in North East India. Better progress could have been made if all the departments had senior persons as guides and adequate staff and equipment.

It may be remembered that the whole of North East India is a virgin field for research in social sciences and life sciences. Yet very few take to research. The majority of the teachers in colleges and universities have no research degrees. The reasons for this state of affairs are several. First, there was no leadership. That is, there was no competent teachers in many post-graduate departments to guide research. Secondly, the teachers of colleges are stationed in outlying areas and they get very little guidance and library and laboratory facilities. Thirdly, the workload of teachers both at the university and college level is high and many teachers do not get the opportunity of doing research work during the term time. Fourthly, the
financial support for research till 1955-56 from the Universities, the Central and the State Governments was negligible. The U.G.C. instituted 50 research scholarships of Rs. 150/- per month in 1956-57 for the whole country (12). In 1957-58, the U.G.C. instituted 100 more research scholarships of Rs. 200/- p.m. None of these scholarships was awarded to the students of North East India.

The Gauhati University for the first time instituted three research fellowships of Rs. 250/- per month (two for Arts and one for Science) in the year 1958-59 (13). Since 1958 the U.G.C. has been assisting the Universities in North East India for development of higher education and research. In 1975 the U.G.C. sanctioned one Junior Fellowship for each department of Gauhati University. The Universities have also increased the allotment of funds for research. In addition the C.S.I.R., I.C.A.R., I.C.S.S.R. and certain public and private sector undertakings instituted research fellowships and scholarship in the Universities.

In 1974 the U.G.C. laid down the pay scales and qualifications of University and college teachers. In the case of University teachers the degree of Doctor of Philosophy has been made the minimum qualification. In the case of college teachers possession of the degree of Master of Philosophy (M.Phil) is prescribed as a minimum requirement. The U.G.C. has instituted teacher fellowship for college teachers. Research has been accepted as a part of a teacher's work. These measures are expected to promote rapid expansion in the field of research. For this purpose certain measures will be necessary. First recruitment of teachers must be on an all India basis without regional or linguistic consideration. Second, only the best persons with proved or potential ability to continue sustained research should be appointed. This will encourage students to join research in larger numbers. Third, there should be a research Council with men of proven ability to promote research. The Research Councils should have sub-committees for different areas of study. These sub-committees should survey the whole field and allocate guides and research student. This will remove the duplication of work by more than one person in the same area. Fourth, the faculty positions should have four
Grades, Lecturers, Readers or associate Professors, Professors and Distinguished Service Professors. One must have served in each grade for at least five years and have shown his capacity as a good teacher, researcher and research guide before he is selected to the next grade.

Fifth, the senior faculty positions must be filled by scholars of eminence who have shown their capacity to organise and promote research. Promotions should be on the basis of merit and not on seniority. Sixth, the qualifications laid down by the U.G.C. for teachers of universities and colleges should be strictly followed. Seventh, the teacher-student ratio in the University departments and colleges should be increased. In all the Universities in North East India the teacher-student ratio is incredibly small especially in Arts and Commerce faculties. For example in 1970-71, the Assamese Department of Gauhati University had 9 teachers for an enrolment of 131 students while the Political Science Department had 7 teachers for 316 students. In 1975-76 the position did not improve. There were 7 teachers for 137 students in Assamese Department and 9 teachers for 247 students in Political Science Department. Of these also the number of senior faculty members was very small, one Professor and two Readers in Assamese and a similar number in Political Science.
Finally provision of sabatical leave should be made for at least six months for a teacher. A teacher who works continuously for five years should be given six month's leave with pay so that he may resort to a seat of learning for improvement of his academic competence.

Analysis:

The picture presented above is no doubt bright. But it has its shades. The progress so far made is quantitative and not qualitative. There is expansion but not progress. Most of the students have no adequate knowledge of the subject they studied. The general education of the student was not satisfactory. It is true that march of events is so rapid and the mass of material is so vast that it is practically impossible for an average student to master every detail. Yet a student must know something. But most students do not study the prescribed course thoroughly. As a consequence they are not well equipped. This is true not only of students in North East India but in the whole country. Let us illustrate this point:

The Ahmedabad Junior Chamber of Commerce launched in July 1963, a project 'Boys' Week in Business' with
with a view to enable promising students to choose the most suitable career. A panel of educationists, businessmen and doctors interviewed about 150 university students for the selection of 50 candidates. All of them were from the intermediate and final year degree class. The panel found that the Engineering students were highly intelligent and well versed in current affairs of the world. The students from Arts and Commerce Faculties were below the average, very poor in general knowledge and indifferent to current affairs of the world. One of the boys said that Assam is the Capital of Bihar. Another student did not know to which party M.R. Masani belonged though he was aware of the fact that M.R. Masani was elected to Lok Sabha. Another student said that Canada was situated near Africa and that it was an under-developed country.

On March 6, 1963, a committee consisting of the Vice-Chancellor of the Gauhati University and Heads of the Departments of Chemistry, Physics and Botany interviewed 12 candidates for the three under-graduate scholarships instituted by the Department of Atomic Energy. All the candidates were Honours students. Seven of them had obtained first division, two a high second division in the I.Sc. examination. Judged by the examination results,
they were the cream of the science students of the University. But the committee found only one fit for the scholarship. Almost all of them did not know even the rudiments of the subjects they studied. Honours students in Botany had never heard of Mendel. Chemistry students could not explain such fundamental concepts as valency and failed to distinguish between atomic number and atomic weight. None could define a millilitre, the basic unit in which chemical glass ware is graduated. The Physics students could not explain humidity, define a unit electric charge, state the velocity of light, nor say anything about the wave length of X rays. When it came to the simplest concepts of atomic Energy, in which the candidates declared they were keenly interested, even the Physics students knew practically nothing .... No one could distinguish clearly between electrons, protons, neutrons and other particles'. Therefore the Vice-Chancellor Dr. Taylor came to the conclusion 'that science education in the university is at a very low ebb. Unless something drastic is done about it there appears little hope of producing the scientific manpower the country needs, or of competing with other universities'.

As regards Arts subjects Dr. Venkata Rao who was
the Head Examiner for Political Science in 1965 wrote (14), 'I was examining the B.A. papers of this University. One of the questions put was 'What is Rule of Law'. Ninety five percent of the students did not attempt this question. The remaining five percent gave absurd answers. One said, 'Rule of law is Rules and Regulations of the country which are passed by the Government for the welfare of the country'. Another said that Rule of law is the guarantee of law by the legal authority'.

Another question was 'What is a unitary state'? One student answered, 'A unitary state possesses a government of its own'.

The Annual Reports of the Public Service Commissions give a list of howlers committed by the candidates at the competitive examinations. I shall quote a few of them.

Who is Jawaharlal Nehru? A: (1) Jawaharlal Nehru reached Mount Everest first and also George Stevenson.

(14) Rao: Howlers, Assam Tribune, 1965 ........
What is vaccination? - Vaccination is a cooperative movement.

What is rhinoceros? - It is a range of mountains in Europe.
(2) It is a kind of disease in children.
(3) It is a kind of deer with a tall neck and can climb trees like monkeys.

What is a clinical thermometer? - It is invented by Clinic.
(2) It helps to strengthen the bones and teeth.
(3) It is used to find out the amount of water in milk.
(4) It keeps hot stuff hot and cold stuff cold.
(5) It is used for taking tea.
What is vitamin? - Vitamins are found in England, France, Russia and U.S.A.

What is irritation? - Certain areas in California are cultivated by irritation.

What is common salt? - It is used for purgative.

(2) It is the sweetest thing in the world.
(3) It is a mixture of gases.

What is bigotry? - A man who marries twice commits bigotry.

What are the harmful insects? - Tigers, elephants, atom bomb, coffee, tea, lust, greed and anger.

What are beneficial insects? - Cats, dogs, cows, khadi and television (15).

Thus from the above it is clear that the general knowledge of the students was very poor. How to improve the situation? This is the problem with which several commissions and committees were concerned. We shall discuss this problem in the next chapter.

(15) Annual Reports of the Assam Public Service Commission, 1965-'70; Govt. of Assam.