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**State Institute of Education, Maharashtra,
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FOREWORD

The purpose of this report is to describe and analyse the progress of school education in particular and education in general in various parts of Maharashtra during the span of last twenty years or so. The underlying idea in preparing the report is to provide comprehensive base for implementation of policy decisions and enlist general steps taken by Government from time to time for rapid expansion and qualitative improvement of education in the State. The information will also give a brief survey of special efforts made by various State-level agencies of Education Department in the reorganization of educational machinery in the interest of educational quality. If education is to fulfil the social, cultural and economics objectives cherished by the country, the pace for its qualitative and quantitative improvement needs to be accelerated so as to gather momentum at various stages of education.

The preparation of this report is the outcome of the inter-State study tour sponsored and organized by the National Institute of Educational Planning and Administration, New Delhi. The urgency for expanding as well improving education is acute and yet our resources for achieving this goal are very meagre. The challenge we have to take up now is to achieve our goals through the best possible utilization of available resources. The Rapport Based Programme is a step towards that direction. The rationale behind this programme is that it doesn't put any additional burden on the State exchequer. We hope the programme will have an impact on the national policy of education in the forthcoming decade.

The report is the result of the active help received from the officers of the Directorate of Education and State-level Institutions within such a short period. Our thanks are also due to the Proprietors of Sarvodaya Mudranalaya, Pune for their untiring efforts in bringing out this report in a stipulated time.

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1. INTRODUCTION

1.1 Land and People

Maharashtra is the third largest State in India both in area and population. Its capital is at Bombay. Its area is 307762 sq. kms. and population of 6.27 crores. Out of the total population 65% people live in rural area while the percentage of urban population is 35%.

The State forms a triangular shape with its base along the west coast of India. The coast-line is about 720 kms. long. The Sahyadries or Western Ghats, run almost parallel to the sea coast and its height is on an average 1200 meters with evergreen forest and paddy fields. The plateau is drained by the great rivers like Godavari, Bhima and Krishna. There are several large scale industries including textiles, ginning and pressing, silk, synthetic fabrics and vegetable products. Various engineering goods, machine tools, ball bearing, and agricultural equipments are manufactured in the industrial complexes of the State.

The total number of literates is 2.97 crores (Males:1.90 Crores Females:1.07 Crores). The State of Maharashtra consists of 30 districts at present with 8 Municipal Corporations at Bombay, Nagpur, Sholapur, Kolhapur, Pune, Pimpri Chinchwad, Nasik and Thane. There are 220 Municipal Councils, 29 Zilla Parishads and 298 Panchayat Samities.

The places of tourist interest are the world famous caves of Ajanta & Ellora near Aurangabad which comprise Hindu, Buddhist and Jain shrines. There are four Jotirlingas in the State, at Bhimashankar (Pune), Ghrushneshwar (Aurangabad), Parli-Vaijanath (Beed), & Aundhya Nagnath (Parbhani). Among the historical places, forts like Pratapgarh, Raigad, Shivneri, Daulatabad etc. are worth mentioning. There are three hill stations at Mahabaleshwar, Matheran and Chikhaldara with exquisite scenic beauty.

There are six universities (including one women's university) & four Agricultural universities in Maharashtra. Bhandarkar Oriental Research Institute, Pune is famous for oriental studies in Sanskrit and Prakrit. Deccan College of Post Graduate Research Institute, Pune conducts studies mainly in Linguistics and Archaeology. Gokhale Institute of Politics and Economics, Pune, conducts studies and investigations in Sociology, Political Science and Economics. Indian Institute of Technology, Powai, Tata Institute of Fundamental Research, Tata Institute of Social Sciences, Bharatiya Vidya Bhawan, Bombay, National Defence Academy, Kharakwasala, National Chemical Laboratory, National Institute of Virology, Pune, Institute of Science at Bombay, Nagpur and Aurangabad are other institutes of National importance.

The present State of Maharashtra came into existence on 1st May, 1960. It consists of three principal regions viz. (i) Western Maharashtra (ii) Vidarbha and (iii) Marathwada. The educational development of these regions showed imbalance in the beginning but with constant efforts, this disparity is being gradually eliminated. It is now a matter of great satisfaction that the responsibility of educational development in all the three regions has been very creditably discharged after the formation of the State of Maharashtra.

1.2 General Educational Progress

The table No. 1 below indicates general educational progress of the state in the field of school education at (i) Pre-Primary, (ii) Primary & (iii) Secondary stages.

TABLE No. 1

Progress of School Education from 1960-61 to 1980-81

Category	1960-61				1980-81			
	Institu- tions	Students	Teachers	Expdr- in lacs.	Institu- tions	Students	Teachers	Expdr. in lacs.
i) Pre-Primary	527	33931	1531	16.95	654	64,263	1647	87.23
ii) Primary	14594	4178000	74799	1595.50	51045	8392,356	222070	17745.68
iii) Secondary	2768	858000	35038	997.78	6119	3009,333	114065	16007.67
Total	17889	5069931	111368	2610.32	57818	11465,952	337782	33840.58

It will be revealed that during the period from 1960-61 to 1980-81 the number of institutions imparting school education, rose from 17,889 to 57,818; enrolment from 50,69,931 to 1,14,65,952 and expenditure from Rs. 2610.32 lakhs to Rs. 33,840.53 lakhs. Thus it is clear that there is considerable expansion in the field of school education. Taking it into consideration this progress, our state is now reckoned as one of the educationally advanced states in India.

A Statement giving detailed information in respect of growth in School Education during the last two decades has been shown in Appendix I alongwith its graphical presentation. Please see Appendices, I, I, (A), I (B), I (C.)

2. ORGANISATION AND ADMINISTRATION

Role and Functions of the Directorate of Education

The Director of Education is the Head of the Department of Education and is generally responsible for the implementation of educational activities in the State. He also functions as the technical head and looks after the programme of general education in the light of the policies laid down by Government in this behalf. His responsibility further extends to the formulation of new Plan proposals and innovative educational programme with academic and technical guidance about their feasibility and effective mode of operation. Concurrent and continuous evaluation of these educational programmes, with necessary feed back and modifications is also one of the main academic functions of this Directorate. The Director of Education is the chief implementing authority in building up the educational system to meet the changing needs of the community as per policies that may be laid down from time to time for the educational reconstruction in the State. Educational activities at the primary and secondary stages are generally managed by local bodies and private agencies; and higher education is looked after by the Universities. However, the general supervision, direction, control and guidance, etc. are expected to be exercised by the Directorate. The National policy on Education with all its attendant emphasis on Universalization of elementary education for the age group 6-14 and the effective implementation of Adult Education programmes for the age-group 15-35 have to be co-ordinated by the Directorate through the combined efforts of various Government, Semi-Government and voluntary agencies in the State.

The present set-up of the Directorate of Education has been depicted in the organogram given in Appendix-II

3. PRIMARY EDUCATION

3.1 The Background

In Maharashtra state, primary education is entrusted to local bodies. The Zilla Parishads, Authorised Municipalities, (Western Maharashtra), Municipal Councils (Vidarbha) and Cantonment Boards are the local bodies responsible for establishment, maintenance and management of the primary schools in their respective areas. In Greater Bombay, primary education is administered by Bombay Municipal Corporation. There are 27 Zilla Parishads 120 Authorised Municipalities and Municipal Councils and 5 Cantonment Boards in the State running Primary Schools. Besides local bodies, voluntary agencies are also running primary schools. There are about 1146 recognised private primary schools run by voluntary agencies in the State.

The Government of Maharashtra pay grants to the local bodies for the smooth implementation of Primary Education in the state.

For inspection, supervision and monitoring of primary schools, inspecting machinery is built up. The Education Officer of each district is assisted by the Dy. Education Officers (C1.II) and Extension Officers (Edn.) The E. Os. and Dy. E.Os have overall control of inspection and supervision of primary schools in the district. The Extension Officers (Edn.) are put into charge of beats (compact area) for the purpose of inspection and supervision of pry. schools. With a view to keeping a close watch on primary education, the scheme to appoint Block Edu. Officer with necessary staff for each block has been recently introduced. The flying squads have also been established for surprise visits to primary schools, in the districts.

Suitable school building for a primary school is a necessity. The Govt. of Maharashtra have realised the financial difficulties of the local bodies in raising necessary funds for the construction of pry. school buildings. The Govt. gives grants to Z. Ps. and also to 'C' class Municipal Councils.

The Local Bodies are also assisted in the form of grant for construction of residential quarters for Primary School Teachers.

As per directives in the constitution of India free and compulsory Pry. education has been provided in the State. The compulsory Primary Education Acts are also in force. But the goal of 100 p. c. enrolment and retention is not still within reach. The Primary Schools have been established in order to achieve Universalization for Primary Education.

(i) **Establishment of Vikaswadis (Creaches) :** The Tribal children of school going age have to look after the babies in their homes and therefore they are not able to attend school regularly. In order to relieve these children of this duty and to enable them to attend School regularly the Scheme of establishment of Vikaswadis (creaches) has been introduced. These Vikaswadis are attached to selected Primary Schools in Tribal area to which Balwadis are attached. Accordingly 21 such "creches" in eight Districts have been established in 1979-80. Each "creache" has a provision of 10 babies and one maid servant is appointed to look after these babies during school hours, who is paid Rs. 50/- p. m. Milk is supplied to the babies during day time and the expenditure incurred is at the rate of Rs. 25/- p. m. per baby for ten months, Necessary equipment costing Rs. 500/- (Non-recurring) is also provided.

(ii) **Balwadis :** It is one of the remedies for reducing drop outs and to creat interest for School among the children of pre-school age and to inculcate hygeinic habits in them. With this view in mind, Maharashtra Government have allowed local bodies (viz. Z. Ps) to staff and attach Balwadis to the single Teacher Primary Schools. In all 2328 Balwadis have been opened so far. A part-time school mother on a remuneration of Rs. 100/- p. m. is put in charge of each Balwadi. Equipment worth Rs. 1000/- is provided to these Balwadis.

3.2 Special Facilities to Students Belonging to S. Cs./ S. Ts.

(i) Supply of Uniforms

The drop outs and irregularity in attendance of the students in Stds. I to IV from the Primary Schools in Tribal areas are. fairly common. To minimise the drop outs and secure regular attendance of the students belonging to Scheduled Tribes studying in Stds. I & II of the Primary schools in tribal areas they are provided free uniforms and writing materials. The uniform consists of a set of shorts, one half-shirt and cap for boys and one skirt and blouse for girls. The writing material is supplied to pupils of the age-group 6-11 in the Zilla Parished schools in Tribal Sub-Plan area where the literacy percentage is less than 10% and where the enrolment in schools is less than 70%.

(ii) Book Banks

It is essential for the students to have text books. But majority of students hail from poor families. They are unable to purchase text books. The result is obvious that the students leave the schools and those continue to attend schools without text books have poor performance in their studies. Under the scheme, sets of text-books are supplied to students belonging to Backward Classes and also other deprived sections of the community in Primary Schools limited to 25% students of total enrolment. The sets are supplied on loan basis and are to be returned at the end of the academic year.

(iii) Payment of Stipends to Tribal Students in Stds. V to X

It is a well-known fact that the tribal children lag behind in education on account of their object poverty. Even if they are provided free clothing, books, slates etc. many of them do not attend schools. Therefore in order, to provide a further incentive to tribal students stipends at the following rates are sanctioned :

- 1) Stds. V - VII Boys - Rs. 40/- p. m.
Girls - Rs. 50/- p. m.
- 2) Stds. VIII - X Boys - Rs. 50 - p. m.
Girls - Rs. 60 - p. m.

The students living in Ashram Schools or residential schools where lodging and boarding is provided free, are not eligible to get these stipends. In order to earn the stipend, the student has to attend school at least 75% of the working days and bear good conduct.

3.3 Non-Formal Education

In addition to the above, a programme of Non-Formal classes for the achivement for universalization of education is being implemented in the State. The children of school going

age are expected to join schools. But due to economic reasons many of the students supposed to attend schools, either do not join school or join and leave half way. Such students who are unable to avail themselves of formal education facilities need to be encouraged and provided educational facilities at their convenience. Part-time classes have been opened for non-formal education of the children of the age group 9-14. The teacher engaged is paid remuneration Rs. 50/- p. m. The students are provided free books, slates etc. There are about 1280 part-time non-formal classes with facilities for about 40,000 students.

(iv) The quality improvement programmes

Award to ideal primary school, Rapport based quality improvement programmes, subject teachers associations, gradation of schools, orientation of teachers etc. are some of the main quality improvement programmes operating in the State.

A joint consultative committee for the Primary School Teachers employed under local Bodies is also constituted at State level. Besides official members, representatives of primary schools Teachers' associations are the also appointed on the committee. This committee is expected to discuss administrative and academic Problems and to recommend to the Government remedial measures thereon.

4. SECONDARY AND HIGHER SECONDARY EDUCATION

4.1 Background

As a result of re-organisation of State, the Education Department had to operate three different schemes of school education in Vidarbha, Marathwada and the Western Maharashtra. The work of integration of these three different patterns of education is now completed with the introduction of 10+2+3 pattern of education all over the State. This is one of the most important developments of far reaching consequences on secondary as well as higher education.

4.2 Administrative and Supervision

Although the education institutions at the secondary stage are managed by the Local Bodies, Zilla Parishads and Private Agencies, the general supervision, direction, control, guidance etc. are exercised by the Directorate. The rules and regulation for the management of these schools are laid down in the secondary school code.

The effective control on the management of schools, the supervision of schools and academic guidance is exercised mainly through the Regional Dy. Directors of Education and Education Officers of Zilla Parishads in the State.

Main function of the Education Officer is to make recommendations in respect of provisional or permanent recognition to schools or withdrawal of the same. He assesses the grant-in-aid payable to non-Government Secondary Schools in his district and disburses salary grants to them through the Cooperative Banks. Other grants are paid to the school directly. The Regional Dy. Director of Education being the controlling officer provides guidance in all matters in the region and seek orders from the Directorate whenever necessary.

4.3 Secondary Education Curriculum

The new pattern of education has been adopted since 1967 at primary stage, since 1972 at secondary stage and since 1975 at higher secondary stage.

On the basis of the recommendations of the Ishwaribhai Patel Review Committee appointed by the Government of India, the S. S. C. Board has submitted its proposals to Government of Maharashtra for revision of syllabi for Standards VIII, IX and X. The same have been accepted by Government and the Revised syllabi are introduced progressively from Standard VIII from June 1982.

4.4 Qualitative Improvement Programmes

(i) Grading of Secondary Schools

On the basis of evaluative criteria formulated by the State Institute of Education Pune; the gradation of secondary schools is undertaken on the basis of achievement of each school in different areas like, physical facilities, educational programmes, teaching learning process and the overall development of the school.

(ii) Attachment of Standards V-VII to Secondary Schools.

As a part of qualitative improvement programme, a scheme of attaching standards V-VII of primary Schools to secondary schools was also undertaken simultaneously. In all, 432 standards of V-VII have so far been attached to secondary schools. Similarly, to improve the quality of education, introduction of subjectwise teaching in standards V-VII has been started, in primary schools wherever feasible.

4.5 Expansion of Secondary Education

The main principles adopted by the Government at the level of secondary education were (i) to provide a secondary school facility within a distance of 5 to 7 Kilometre and (ii) to provide requisite facilities for the same. According to a recent policy decision of Government, the secondary schools are now being opened in the backward areas, tribal areas, and fast expanding areas.

The statistical data of secondary schools given in Appendix I exhibits considerable expansion in the field of secondary education. In order to scope up with increased number of students seeking admission to secondary schools on an average, it is necessary to open 2500 additional divisions every year. The average expenditure per new division comes to Rs. 7000/- and for continued division it comes to Rs. 9000/- P. A.

Considering multilingual nature of the State, there are secondary schools with 10 different media, the details of which are given below :

Table No. 2

Number of Secondary Schools-Mediumwise

Medium	One medium	More than one medium	Total
1. Urdu	197	112	309
2. English	385	168	553
3. Hindi	94	130	224
4. Gujarati	86	69	155
5. Sindhi (Arebic)	17	17	34
6. Kannad	16	30	46
7. Tamil	-	2	2
8. Telgu	-	5	5
9. Bengali	-	3	3
10. Marathi	4788	-	4788
Total	5583	536	6119

4.6 Training of Teachers

For meeting the requirement of qualified and trained teachers in secondary schools, the State Government has provided training facilities to teachers. There are 14 Government and 37 non-Government Colleges of Education conducting B. Ed. course. At present, the p. c. of trained teachers is 95.

4.7 Payment of Grants to Schools

At present the Grant-in-aid to schools is paid as per the following formula, subject to other condition given in S. S. Code : (a) 100% for salaries and other allowances of admissible employees and (b) 12% of the admitted expenditure incurred by the management whichever is less.

4.8 Establishment of Vidya Niketans

With a view to provide better facilities of secondary education to bright & deserving students in rural areas four public residential schools (Pusegaon, Dhule, Aurangabad and Amraoti) have been established by Govt. In each of these Vidya Niketans ten additional

Adivasi Students are now admitted and their entire expenditure is borne by Government. An additional Shasakiya Vidya Niketan has been started mainly for the tribal students at Kelapur, district Yeotmal during 1981-82 with an intake capacity of 30 students. The entire expenditure on it will be incurred by State Government. The total strength of students in these Vidya Niketans is 702 during 1981-82. Out of the 118 students of Public Schools, who appeared for S. S. C. examination, in 1981, 103 passed in First division, out of which 54 students secured distinction in various subjects. The most remarkable feature of the scheme is that the students have maintained community spirit and the tradition of good results.

4.9 Encouragement to Sainik Schools

In order to encourage secondary education with military baiss Government assist Shri Shivaji Preparatory Military School at Pune, Bhonsala Military School at Nasik and Satara Sainik School at Satara with special grants. A large number of scholarships have been introduced for Maharashtra boys at Sainik School, Satara and also Sainiki Schools in other State like Amravathi Nagar (Tamilnadu) Korukhunda (Andhra Pradesh) Chitorgarh (Rajasthan), etc. The total number of students admitted in all Sainiki Schools is 625. At present the State Government incur an expenditure of Rs. 24.00 lacs approximately per annum for Sainik School, Satara, on account of Scholarships, purchase furniture and equipment etc. The noteworthy feature of the schools is that since 1964; 229 students secured admission to National Defence Academy, Khadakwasla, Pune. For other two Sainiki schools managed by Private Agencies, the State Government provide six scholarships.

4.10 Book Banks

Book Bank Scheme has already been implemented in the secondary schools. The pupils belonging to weaker section in Stds. VIII and IX, aided private secondary schools and Government and Zilla Parishad High Schools are issued books on loan basis. This is mainly aimed at covering 25% of the student population who belong to B. C. communities.

4.11 Incentive Grants.

(i) Incentive grant amounting to Rs. 10000/- per school is paid to well managed schools in the State. 252 schools have so far been paid incentive grants on the basis of their academic and administrative performance. Out of the total grant Rs. 5000/- are spent on the purchase of science equipment for the school and remaining for library and reference books. The scheme is implemented since 1977-78. About 100 schools are benefitted by this scheme per year.

4.12 Raport Based Programme of School Improvement Towards Excellence

In order to give an impetus to the programmes of qualitative improvement of education in general and improving the performance of the retarded secondary schools at the S. S. C. Examination in particular, the scheme of adoption of schools by officers of the department was introduced in the State from the year 1977-78. (A detailed report of the programme is given saperately)

4.13 Bank Loan for Construction of School Buildings

As per the provisions in the Secondary School Code, in the case of secondary schools, the State Government can consider the request for the Government to stand guarantee for the loan which may be sanctioned by bank for construction of school building. It is notable that the scheme has potential for developing building activity for Educational Institutions.

4.14 Reward for Excellant- Performance of Teachers

Teachers in the State showing excellent performance are honoured with State awards. Besides, the State Government recommends such teachers for the national awrds instituted by the Government of India. While considering teachers for awards their best for further knowledge, love for profession, class room work, personality, place in the society and attitude towards students are all taken into account.

4.15 Development Fund

In order to enable the schools to set apart funds for **capital formation** a development fund is constituted for every aided non-Government secondary school from the financial year 1973-74. The management of every school has to contribute its share every year on this account.

4.16 Educational Concessions

(i) Backward Class Students

Children belonging to backward comminities are given special facilities in matters relating

to education all over the State. Free education is available to students for S. C., S. T., V. J. N. T. and D. N. T. at Secondary stage.

4.17 Concessions to Economically Backward Students

For the award of educational concession under this scheme at secondary level those whose parents income is less than Rs. 4800/- per year are treated as economically backward.

Higher Secondary Education

(i) Background

According to the new pattern of education, the classes of F. Y. & S. Y. J. C. (Junior Colleges) plus 2 stage i. e. after passing the S. S. C. Examination at the end of Std. X were opened to the Secondary Schools and Colleges from the academic year 1975-76 progressively.

(ii) Vocationalization of Education at +2 stage

From the academic year 1978-79, vocational courses in six different groups viz. (a) Technical Group (b) Commerce Group (c) Agricultural Group (d) Catering and Food Technology Group (e) Fishery Group and (f) Para Medical Group are introduced at Plus 2 stage. The number of subjects under vocational courses is now 23. Some of the selected institutions are allowed to teach one or two subjects from the 23 subjects from the above groups. The students offering one of these subjects can secure admission to the degree course, if he passes S. Y. J. C. (Std. XII) with English and 3 elective subjects.

(iii) Panel Inspection of Higher Secondary Classes

Government have appointed panels of experts to inspect the academic performance of the Institutions and to give academic guidance to the staff of the Junior Colleges for improvement of the academic programme. The Regional Deputy Directors of Education or his representatives are appointed as convenors of these panels of experts. The subject experts are selected from the experienced teachers/lecturers of the Junior colleges.

5. ADULT EDUCATION PROGRAMME

Prior to the implementation of the massive Adult education programme, Maharashtra State had very successfully implemented programmes of adult education which received International acclaim. Brief resume of the said programmes is given below :

5.1 Gram Shikshan Mohim (Village Education Campaign).

(i) Background

Before 1959 stray adult literacy classes were started in rural areas and after working for some time in isolation these classes closed down. It is in 1959 that the idea of taking the literacy movement to the masses and making them adopt it on their own was first experimented in Satara district. The importance of the movement was impressed on teachers, villagers, social workers and political leaders by holding a large number of meetings. This infused enthusiasm and zeal among the people and the workers. The annual average figure of 3,000 neo-literate adults before 1959 leaped to 11,000 in 1959-60 and to 1,90,000 in 1960-61 in Satara Dist. After these successful experiments, the campaign was adopted for the whole State since 17th April 1961. Some of the important objectives of the campaign were as given below :

(a) Eradication of illiteracy of the adults within the age-group 14-50 by starting literacy classes. (b) Retaining literacy classes and enriching the knowledge of neo-literates through the circulating Literacy Scheme and (c) Bringing about all-sided development of the village through Social Education Centres.

(ii) Recognition by UNESCO

Special features of this campaign were its low cost (Rs. 1 per adult, paise 50 as incentive grant to Village Panchayat and paise 50 for production of literature) and mass participation. To quote Mr. J. C. Cairns, Director, Literacy Division, UNESCO, "Things

seen in India will be valuable to other countries. I have visited twenty-three countries in recent years but no where have I seen such community participation as I find here, where people are working whole heartedly. I was most impressed by the literacy activities which I saw in Maharashtra. It appears to me that in the Gram Shikshan Mohim of Maharashtra you have succeeded in developing very strong and active adult participation at the field level. This is a noteworthy achievement, and the mobilisation of human resources which it permits is of very great significance in a mass literacy campaign. I was also impressed by the large amount of functionally oriented materials which you had prepared and had been using for a number of years. This combination of functional orientation plus massive village participation, together with the thorough planning and organisation which are quite evident in your programme, is indeed noteworthy." UNESCO had appreciated the achievements of the scheme by awarding the coveted "Mohammad Reza Pahalvi Prize" to the Gram Shikshan Mohim in 1972.

5.2 A New Experiment in Functional Literacy (Pilot Project of Linking Functional Literacy with PIREP in Karanja Block of Wardha District)

With a view to removing the deficiencies in the Gram Shikshan Mohim and to make adult education programme more need based an experimental project was undertaken by the Education Department in Wardha Dist, in the year 1974-75. The programme of functional literacy was started in cooperation with the Government of India's Pilot Project of Linking Functional Literacy in Karanja Block of Wardha Dist. One of the important objectives of this PIREP was "to explore the possibility of imparting new skills to atleast some of the workers employed on project works during the period of employment and of assisting them in finding continuous employment in the rural and urban areas."

After conducting the initial survey of the area, 10 functional literacy centres were started at worksites of the PIREP. In addition to the regular programme of literacy, following occupational skills were introduced in these centres :

- (a) Carpentry relating to agriculture and household equipment.
- (b) A composite programme of masonry, brick making and tile making.
- (c) A composite programme of dairy development, poultry and sheep and goat rearing.
- (d) Tailoring and cloth toy making.

For introducing literacy with this new approach a set of flash cards consisting of 150 picture cards, 250 word cards and 110 sentence cards have been prepared. In addition, a primer "Maaza Gaon" based on words and sentences introduced with the help of flash cards was developed and used in these classes. Initially 250 adults were enrolled in all the 10 centres. Out of these 250, 93 men and 58 women successfully completed the course. The total expenditure incurred on this pilot project was Rs. 16,450/-.

5.3 Functional Literacy Programme

Achievement of Wardha experiment had created confidence and had given new dimensions to schemes of Adult education. This experiment had amply proved that the educational content of the adult education programme should be related to the needs, interests and environment of the persons for whom it is intended and should be as functionally relevant as possible. Hence Maharashtra State introduced Functional Literacy Programme from 1976-77 in 11 Districts of the State viz. Satara, Sangli, Ratnagiri, Nasik, Dhulia, Osmanabad, Bhir, Nanded, Yetomal, Nagpur and Bhandara where no other adult literacy programme was in existence at that time. Thirty adult education centres anticipated with enrolment of 900 adults were started in each of these 11 Districts. The total coverage for the whole state was 330 centres with 9900 enrolment with budgetary provision of Rs. 2 lacs per year.

5.4 Farmers Functional Literacy Programme

With a view to relating literacy with the functional skills of the adult learners, Govt. of India introduced Farmers' Functional Literacy Programme with 100% central assistance. As agriculture is the main occupation of our country, high yielding varieties programme was introduced as the main functional phase of this programme. This programme was introduced progressively from 1969-70 in 14 Dists. of the State, viz. Thane, Jalgaon, Pune, Raigad,

Ahmednagar, Sholapur, Kolhapur, Aurangabad, Parbhani, Beed, Amaravati, Akola, Buldhana and Chandrapur. Under the scheme, 60 centres were opened in each of these districts. A project officer with Rs. 500/- as fixed salary per month was appointed to supervise these centres. In all 840 centres were set up in the State with a total enrolment of 25,200 adults. The total budgetary provision for each district was Rs. 35,586/- and this amount was borne by the Govt. of India.

5.5 Non-Formal Education Programme

A new non-formal Education Programme was introduced by the Govt. of India with 100% central assistance during the year 1976-77 in Wardha District. One hundred centres with enrolment of 3000 adults were started in this District and Government of India sanctioned Rs. one lakh for this project. As a matching share of State Government, similar project was started with 100 centres in Pune District. In the subsequent years, Government of India selected Beed District for central assistance and the State Government selected Ratnagiri District as state matching share. Thus the non-formal education programme was conducted in four Districts and 400 centres with 12,000 enrolment were set up.

5.6 National Adult Education Programme

From 2nd October 1978, Government of India launched a massive and ambitious National Adult Education Programme. One of the important features of this programme was involvement of voluntary agencies for the first time. The course content was also materially changed and in addition to literacy plus numeracy, areas of awareness and functionality were also included. As a State Government's matching contribution, Maharashtra State also introduced State Adult Education Programme and made provisions of Rs. 5 crores in the Sixth Five Year Plan as against Government of India's provisions of Rs. 6.20 crores.

5.7 Budgetary Provisions

The programmes sponsored by Govt. of India received 100% financial assistance. The programmes sponsored by the State Govt. are financed by the State Govt.'s resources Annual budgetary provision for various programmes by is as under : (i) Govt. of India-Rs. 126.44 lakhs, and (ii) Govt. of Maharashtra Rs. 233.44 lakhs.

5.8 Follow-up Programme

With a view to retain the literacy gained by adults and provide them with useful reading material follow up programme has also been introduced in 1979-80 by the State. Under the programme 2125 libraries were started in 25 districts of the State excluding Gr. Bombay at the rate of 85 libraries per district During the first year of the library, a grant of Rs. 1,000/- was sanctioned for various items like books, table, chair, cupboard, magazines and newspapers and an honorarium of Rs. 10/- per month to the organisor. During the subsequent years a grant of Rs. 300/- is paid to these libraries.

5.9 Role of Voluntary Agencies in Adult Education Programme

As already stated, one of the important features of the National Adult Education Programme is involvement of voluntary agencies. In all 147 voluntary agencies conducted 4,410 centres with a total enrolment of 1,32,300 adult learners. Each voluntary agency conducting 30 adult education centres received maximum grant of Rs. 49,500 towards the recurring and non-recurring expenses of the programme. The course content of this programme was the same as that of the National and State Adult Education Programmes.

5.10 Programme of University Grants Commission

As in the Case of Department of Adult Education the University Grants Commission has also introduced adult education programme through the universities and affiliated colleges in the State. These adult education centres are organised by a small administrative unit established at the University level for supervision and monitoring of this programme. University Grants Commission has given approval to 159 colleges in the State for conducting adult education programme. In all 1740 adult education centres are conducted by these colleges. At the rate of 30 illiterate adults within the age group of 15-35, the total enrolment comes to 52,200. The course contents and other details are the same as in the case of National Adult Education Programme.

5.11 Administrative Pattern

At the District level. Dist. Adult Education Officer in the M. E. S. Cl I Project Officer in the M. E. S. Cl. II, are appointed to supervise and guide the working of the adult education programme in the District. They are responsible for the planning of the programme, effective monitoring and supervision, training of instructors, coordination of the programme of various development departments, Voluntary agencies and other social organisations in the Districts and the work of the voluntary agencies.

At the divisional level, Dy. Director of Education, each in-charge of four Districts, supervises the work of District Adult Education Officer and Project Officer and control certain administrative matters. These Dy. Directors of Education also visit the education centres and give guidance for the effective implementation of the programme.

At the State level, Additional Director of Education supervises and monitors the programmes of adult education of the State. He is assisted by one Dy. Director, two Asstt. Directors of Education, 3 Social Education Officers and One Programme Officer.

To assist the Directorate in the training of functionaries, supply of teaching-learning material, research and evaluation, Govt. of India have started established a State Resource Centre at the Indian Institute of Education, Pune. Similarly State Govt. have established a State Institute of Adult Education at Aurangabad for directly assisting the Directorate of Education in the implementation of the adult education programme.

5.12 Establishment of State Board of Adult Education

For effectively coordinating the activities of the various development departments and for giving guidance in effective implementation of the adult education programme, State Govt. have established State Board of Adult Education with the Honb'le Chief Minister as its President and Addl. Director of Education as its Member-Secretary.

In addition to the Minister for Education and Minister of State for Education, Chief Secretary, Secretaries and Heads of various developments, departments, other important non-official members who have evinced interest in the adult education programme are taken up on this Board.

At the District level District Adult Education Boards have been formed with Collector of the District as its President and District Adult Education Officer as its Member-Secretary. Similarly at the village level Village Committee has been formed to assist the running of the adult education centre.

5.13 Preparation of Teaching Aids

A special workshop of some experienced field level functionaries was organised by the Districtoratorate at Aurngabad and a number of innovative low cost teaching aids were prepared on various curricular units. This effort was very much appreciated by the Directorate of Adult Education, Government of India, New Delhi and in July 1981 they have prepared a documentary entitled 'You can do it' of about 22 minutes duration. This project of Government of India was assisted by UNESCO and that organisation deputed its specialist Mr. Beverige for the purpose. This documentary is a very useful tool for the instructor's as well as supervisor's training courses and will be used in all the States.

5.14 Evaluation

In additions to the on going evaluation as well as evaluation at the end of 10 months duration conducted by the District level functionaries of the programme, the Government of India arranged for the external evaluation of the adult education programme implemented in the Maharashtra State. This task was entrusted to the Tata Institute of Social Sciences, Bombay by the Government of India. This institute has submitted its preliminary report to the Government of India. The efforts of the State Government in introducing literacy have been very much appreciated in this report. Similarly the achievements of adult learners in the field of awareness and functionality have been appreciated by the external evaluators. Certain suggestions in the field of instructors' training, more classes for women and backward class adult learners, closure of certain centres in the middle of the course, have also been made for achieving more success in implementing the adult education programme in the State.

From the various efforts mentioned above, it can be concluded that the programmes have given fruitful results. The effective literacy rates pertaining to various states in India during the years 1961, 1971 and 1981 are mentioned in the table given in Appendix-IV. A graph depicting the present picture of effective literacy in Maharashtra as compared with some of the neighbouring states is also given in Appendix-IV (A). It is a matter of pride to note that Maharashtra occupies second place in the rank.

6. MAHARASHTRA STATE BOARD OF SECONDARY AND HIGHER SECONDARY EDUCATION PUNE.

6.1 Introduction

Before 1st January 1966, there was no uniform legislation for the State as a whole to regulate the pattern of Secondary Education. The Maharashtra Legislature passed the "Maharashtra Secondary Education Boards Act 1965" and accordingly, the Maharashtra State Board of Secondary Education and the three Divisional Boards at Pune, Nagpur and Aurangabad came into existence on 1st January 1966.

In pursuance of the decision taken by the Government in adopting 10 + 2 + 3 Pattern of education in Maharashtra, the Higher Secondary Examination, at the end of Std. XII, was held in March 1977 by the Board. As a result of this, it was felt necessary to make the necessary amendments to the Maharashtra Secondary Board Act of 1965. The Government sanctioned the amendments in January 1977. The new Act is called the 'Maharashtra Secondary Education Boards (Amendment) Act 1976.' As per the revised Act the nomenclature of the Board has been changed as the 'Maharashtra State Board of Secondary and Higher Secondary Education, Pune.'

The State Board is a two-tier Board. It deals with all policy matters and advises the State Government on different issues in the field of Secondary and Higher Secondary Education. For the purpose of the conduct of examinations twice in a year and evaluating performance of candidates at the conclusion of the Secondary and the Higher Secondary stages. Three Divisional Boards are set up : one for the Pune Division (consisting of Greater Bombay and districts of Bombay and Pune revenue divisions) another for the Nagpur Division (consisting of districts of Nagpur revenue division.) and the third for the Aurangabad Division (Consisting of District of Aurangabad revenue division) The State Board has a corporate existence. The three Divisional Boards serve as functional or operative limbs of the State Board.

6.2 Functions of the State Board and the Divisional Boards

The State Board deals with academic matters in regard to framing syllabi, deciding pattern of examinations at the Secondary and Higher Secondary stages, preparing text books and sanctioning text-books, preparing instruction material etc.

The Divisional Boards conduct the examinations at the conclusion of the Secondary and the Higher Secondary stages.

6.3 Curriculum

The Board revised the syllabi for Stds. VIII to X in the light of the recommendations of Dr. Ishwarbhai Patel Review Committee Report. The revised syllabi for Stds. VIII to X were circulated to Heads of Secondary Schools, teachers, educationists and others concerned for eliciting their views thereon. The syllabi have been finalised in the light of the comments that were received and have been approved by Government on 25-10-1979. The revised syllabi will be implemented progressively in Std. VIII beginning from the academic year, commencing from June 1982. The first S. S. C Examination on the basis of the revised syllabi will be held in March 1985.

The Board intends to revise the syllabi for Stds XI and XII. Heads of Jr. Colleges, teachers and educationists have been requested to send their suggestions.

6.4 Vocational Courses at + 2 stage

The Board has introduced the Vocational Courses at + 2 stage with the following objectives :

- i) To minimise the rush of students going in for the University Degree Courses.

- ii) To help students to develop expected skills in different vocations.
- iii) To enable students to develop expected skills in order to get employment.
- iv) To develop necessary knowledge and skill among students for self-employment.
- v) To enable students to pursue higher education.

The State Board in the first instance prepared Syllabi for 19 Vocational Courses under Technical, Agricultural, Commercial, Catering and Food Technology and Fisheries Groups. The syllabi of these were published in August 1978 and introduced from the academic year 1978-79 in Standard XI. The Board also prepared and published a monograph giving brief information about the Vocational Courses.

The two new courses under Technical and two courses under Para-Medical groups have been introduced in Standard XI from the academic year 1979-80 and Fine Art and Miscellaneous Groups from 1981-82.

A directive was given by the Government to convert the subjects of vocational nature and the subjects under Occupational Orientation Group from the General stream into the Vocational Courses. Accordingly, the State Board examined the position and decided to convert the subjects under General stream into Vocational Courses. The syllabi of 200 marks of these subjects were prepared by the respective Committees of the State Board under the guidance of experts in the field. Thus the syllabi in 12 vocational courses have been prepared and published in June 1981. These courses are being implemented in Std. XI from the academic year 1981-82.

The total number of institutes (Higher Secondary Schools/Junior Colleges) conducting Vocational Courses from 19 districts is 155. The institutions have been selected by the Department of Technical Education.

The proposals in respect of eligibility of students passing the H. S. C. Examination with Vocational Subjects have been accepted by the different Universities in the State and resolutions of the Universities in this behalf were published in Board's monthly issue 'Shikshan Sankraman,' for the guidance of all concerned. The students passing the Vocational Courses are admitted to the respective degree courses. However, they are expected to opt for English as a compulsory language.

6.5 Textbooks

Since the syllabi for Std. VIII to X have been revised, the Board has undertaken a time-bound phased programme of preparing 264 textbooks for Std. VIII to X. According to this programme, 26 language textbooks, 8 non language textbooks and 54 translations for Std. VIII have been prepared and all these text books are under print. These book will be introduced in Std. VIII from June 1982. The work of Compiling textbooks for Std. IX is in hand. The work of textbooks for Std. X will be taken in due course. New textbooks for Std. XII will be prepared in the near future.

6.6 Publication

The Board brings out a monthly magazine viz. 'SHIKSHAN SANKRAMAN' in Marathi. It also brings out special issues of the magazine on major aspects of the implementation of the new 10+2 pattern. The magazine contains educational literature for the guidance of the teachers.

The Board has also published the following material for guidance of teachers concerned :

- (i) Hand-book for Higher Secondary
- (ii) Hand-book for teachers of Science (Std. IX & X)
- (iii) Model Question Papers for Stds. X, XI and XII
- (iv) Hand-book and work-book for the subject 'Introduction to the World of Work Stds. IX & X.'
- (v) Model Question Papers for Std. XII.

6.7 Research

A Study Group appointed by the Board has recently submitted reports on (a) "problems of Night Schools in Maharashtra" (b) Problems of the physically disabled

addition to this the various Research Projects have been undertaken by the research section of the Board.

6.8 Central Valuation

For the H. S. C. Examination the Board has adopted the scheme of central valuation in Physics, Chemistry, Biology and Mathematics. In the Central Valuation scheme, the answer-scripts are collected centrally at head-quarter from the Chief Conductors. The answer scripts are given to examiners and moderators every day and the examiners carry out the assessment work under the close supervision of the respective moderators. The system has yielded excellent results. The assessment has become more objective and reliable by the adoption of the central valuation scheme. The scheme has recently been made still more fool-proof by pasting brown paper slips over the seat number of the candidate on the first page of the answerscripts and the supplements. The removal of identity of the answer script by pasting brown paper slips before handing over the answer script to the examiner is an excellent method evolved by the Board for maintaining complete secrecy in the method of assessment.

The Board has taken every step in maintaining secrecy of assessment and in maintaining objectivity in assessment. These measures have greatly helped in abolishing the normal malpractices noticed during the course of conduct of examination and assessment of answer scripts.

6.9 Examination Results

The three Divisional Boards at Pune, Nagpur and Aurangabad conduct the S. S. C. and H. S. C. Examinations at the end of Std. X and Std. XII respectively under their respective jurisdictions. The results of the last four examinations are given below.

Table No. 3

Statement showing the information Regarding S. S. C. & H. S. C. Examinations
for the years March 1978 to 1981

Name of the Division 1	Year of the Exam. 2	No. of candidates Registered 3	No. of candidates Appeared 4	No. of candidates passed 5	Pass percentage 6
Pune Divl. Board, Pune.					
	March	S. S. C. Examination			
	1978	2,70,329	2,64,178	1,09,669	41.51
	1979	2,89,223	2,85,773	1,50,018	52.50
	1980	2,99,267	2,96,282	1,54,309	52.08
	1981	3,20,262	3,17,231	1,72,397	54.34
Nagpur Divl. Board, Nagpur					
	March	S. S. C. Examination			
	1978	94,372	91,696	30,039	32.76
	1979	1,00,102	98,791	39,672	40.16
	1980	1,08,925	1,07,756	40,355	37.45
	1981	1,22,458	1,20,895	49,559	41.00
Aurangabad Divl. Board, Aurangabad					
	March	S. S. C. Examination			
	1978	42,072	40,768	13,871	34.02
	1979	45,223	44,567	18,260	40.97
	1980	48,712	47,636	18,209	38.23
	1981	54,775	53,830	25,824	47.97
H. S. C. Examination					
Pune Divl. Board, Pune					
	March	H. S. C. Examination			
	1981	1,44,428	1,41,174	73,124	51.80
Nagpur Divl. Board, Nagpur					
	1981	49,568	48,142	15,527	32.25
Aurangabad Divl. Board, Aurangabad					
	1981	18,949	18,201	6,382	35.06

7. M. S. BUREAU OF TEXTBOOK PRODUCTION AND CURRICULUM RESEARCH, PUNE

7.1 Establishment of the Bureau

THE WORD "Balbharati" was initiated first in the school life of Maharashtra 14 years ago and is now the part of the life of school children. Balbharati is not only the name of the textbooks, but is also the name of the headquarters of the Textbook Bureau that produces textbooks in various subjects.

The textbooks in the past (before the establishment of the Textbook Bureau) were published by the private publishers and the Government. The syllabus was not common for the three regions of Maharashtra Vidarbha, Marathwada and Western Maharashtra. The textbooks were also not uniform. The nationalisation of textbooks was undertaken with an objective of bringing about the uniform standards. The Government of Maharashtra accordingly took a decision in this context and established the Maharashtra State Bureau of Textbook Production and Curriculum Research at Pune on 27th January 1967.

The Bureau was registered under the Societies Registration Act and also Public Trust Act. Then the President of the Bureau indicated the objectives of the Bureau- "The principal objectives of the Bureau will be the production of quality textbooks, their reasonable prices, efficient distribution and research and development of the curriculum."

When the Bureau was established in the year 1967, initially only 27 lakh copies of one book were printed. During the years 1968-71, the Textbook Bureau produced 77 titles through Marathi Medium for Stds. I to VII and 301 titles through other language media. Thus during these four years the Bureau produced in different languages 378 titles. Now the Textbook Bureau paid attention to the aspect of making the textbooks attractive. The Bureau has also paid attention to the aspects of quality printing and binding.

7.2 Production of textbooks and other material

A Committee of writers and subject experts for each subject is constituted. There are in all 11 such Subject Committees out of which 7 are languages Committees for 7 languages viz. Marathi, Hindi, English, Gujarati, Urdu, Kannad, and Shindhi and four Subjects Committees for subjects like History, Geography, Science and Mathematics. The Committees are reconstituted every three years. The committees edit textbooks and prepare the manuscripts of the textbooks. After the preparation of the manuscript, it is scrutinised again by the Committee members and then the manuscript is sent for comments from the experienced teachers and experts in the field. It is also tried out in selected schools. The try-out helps the Committee to weed out the deficiencies. The manuscript is then submitted for printing.

The Textbook Bureau produces and distributes textbooks for Stds. VIII to XII prepared by the Maharashtra State Board of Secondary and Higher Secondary Education. The Bureau so far has produced 300 titles on behalf of the State Board of Secondary Education.

The Bureau has also undertaken the translation of the Science textbooks prepared and published by the National Council of Education Research and Training (NCERT), New Delhi. Some of the Science textbooks are also produced in Urdu. Even the original textbooks in English are also published by the Bureau. The Bureau has also published Teachers' Handbooks for the use of teachers.

The Bureau has so far produced 689 textbooks and every year three crores of copies are reprinted in accordance with the needs of the pupil community.

The Bureau has also produced, various non-textual publications. In addition to records 'Sanskar Vachan Mala', inspiring songs, Gandhi Smriti Manjusha and various charts, teachers handbooks and workbooks are also produced by the Bureau also publishes the popular 'KISHOR' magazine for children.

7.3 Research Programme

Before the establishment of this Bureau, there was no programme of research and development in the field of Curriculum and Textbooks. It was necessary to have the research programmes for curriculum and textbooks to make the bases of textbooks up-to-date and scientific. The Bureau, therefore, established its own Research Department.

The Reserch Section of the Bureau undertakes the try-out of the textbooks. The promising workers are also given grants for undertaking certain projects. This section also guides seminars and workshops. The various programmes undertaken by the Research Section help the Subject Committees to improve the contents of the textbooks and the syllabus. The Research Section has completed about 219 projects so far.

The Research Section has also undertaken the programme of collection of old and new textbooks from the different parts of the country and different countries in the world. This will enable the Research Section to know the developmental stages in textbooks and to judge quality of the textbooks produced by the Bureau.

7.4 Distribution Scheme

The Bureau produces textbooks and also distributes them. There are four Regional Depots owned by the Bureau and they are at Goregaon (Bombay), Pune, Nagpur and Aurangabad. These depots supply textbooks to the registered dealers, co-operative societies like Apna Bazar which also help the Bureau in its distribution programme. The Bureau is following a Policy of decentralising the distribution of textbooks by appointing more co-operative stores at district level. This has helped the Bureau for quick distribution of textbooks in various districts of the State.

7.5 Exercisebooks-Their Production and distribution

The exercisebooks were produced and sold by traditional manufacturers of exercise-books so far. Last year, there were various complaints regarding the availability of exercise books. The State Government, therefore, asked the Bureau to undertake the work of production and distribution of exercisebooks. The Bureau is producing this year i. e. 1981-82, exercisebooks of 48 pages, 80 pages, 95 pages and 192 Pages. Initially, the Bureau is producing about 2 crores and 69 lakhs exercisebooks. For this, the Bureau has also undertaken the distribution of exerisebooks produced by other agencies such as traditional manufacturers, Small Scale Industries Units and co-operatives. The distribution of these exercisebooks was undertaken by the Bureau in co-operation with Maharashtra State Consumers' Co-operatives Federation, Bombay. The exercisebooks for primary schools were supplied through the Panchayat Samitis. The State Government has given necessary financial support to educational institutions for purchases of exercisebooks.

The Bureau has made available stock of exercisebooks to the tune of 4.97 crores to the educational institutions for the academic year 1981-82.

7.6 Management

The Board of Governors is the supreme policy making body of the Bureau and it plans, formulates policies etc. There are also various other Committees like Executive Committee, Finance Committee, Academic Council, Curriculum and Research Committee, etc. The Director is the executive head of the Text-book Bureau. The experts in the field of education, printing and social service, etc. are nominated on the Board of Governors.

8 INNOVATIVE PROGRAMMES

8.1 "SAMPARKA PATRIKA" (Contact Bulletin)

The Director of Education, M. S., Pune has been bringing out a bulletin in Marath "Samparka Patrika" every month since May 1980. So far 30 issues have been brought out and sent to all the officers of the Department.

The main objective of bringing out the bulletin is to establish rapport with officers, head-masters, teachers and other workers in the field of education. The material in the bulletin is useful for creating understanding, confidence and cooperation among the persons working in the field of education. The main events of the month and some reactions received from teachers, teacher educators, officers of the department, etc. are included in this bulletin.

It is hoped that the common understanding and awakening for improvement in quality of education thus created will definitely help to motivate persons concerned.

8.2 "DHADPAD VYASPEETH" (Forum for Innovative Practices)

With the initiative of the Director of Education, M. S., Pune the Head-masters and Teachers of the Secondary schools at various places in the State have developed a forum named "Dhadpad Vyaspeeth." The main objective of the forum is to discuss innovative projects and practices taken up by the educational institutions or by individual head-masters and teachers. One such forum has been started in Pune on 1st January, 1981. In this forum teachers come together once a month in one of the secondary schools and discuss 2 to 3 projects undertaken by participating schools. As a part of the discussion, problems faced by the participants while carrying out the project are thought over and solutions suggested. This activity has created confidence in the minds of teachers for taking up innovative programmes in their respective schools.

At present nearly 100 such forums are functioning at various places in the State. Regular meetings are held at these places to discuss and solve the problems faced by schools resulting in the qualitative improvement of education in general and persons in the field in particular.

8.3 "SHAIKSHANIK VICHAR SAMVARDHAN MANDAL" (Association for Propagation Educational Thought)

With a view to providing a scope for exchange of ideas on new trends in education and for infusing confidence among the administrative officers of the Education Department working at Pune, a meet is held on the first working day of the month at the State Institute of Education, Pune. The activity was started in August 1978 and is still continued to this day with the same zeal and the spirit of cooperation.

In this meet one or two officers present a synopsis or take review of books on educational problems which is followed by a lively discussion on it. Opinions are expressed and views are exchanged also experiences are narrated in it. This activity has now been extended to the district level and gained momentum.

The association at Pune has organised 46 meetings so far. In these meetings 35 books or research papers were reviewed.

8.4 "GEET MANCH" (Forum for Educational Songs)

In order to inculcate social and national integration among pupils and teachers, a forum for educational songs was established at Pune in April, 1981. One of the broad objectives of this forum is to create national spirit and love for country through national songs, prayers, chorus songs among the teachers and pupils. Such programme creates a sense of discipline among them.

Secondary and primary teachers come together once a month and arrange a function in one of the schools where the programme of 'Dhadpad Vyaspeeth' is being organised. About 75 teachers belonging to primary and secondary schools of Pune Corporation area take part in this activity. Uptil now about ten such programmes were arranged. On the eve of children's day (14th November, 1981) a common programme for 3000 children of Pune was organised.

Regular practice sessions have been arranged in the State Institute of Education, Pune. On most of the occasions the Director of Education, Shri V. V. Chiplunkar personally attends these programmes and gives guidance and encouragement to the participants. The activity is gathering momentum and it is hoped that teachers and pupils of other parts of the State will also follow this example in near future.

8.5 "JEEVAN SHIKSHAN" (Magazine in Marathi)

A need of publishing a Marathi Magazine was felt long back by the authorities in the Department of Education. The work was entrusted to the Govt. Primary Training College in the year 1913. The first issue of the magazine was brought out under the name "Marathi Shikshak" in that year. Then it was published under different titles like "Kanya Shikshan"

“ Parthamik Shikshan ” and finally it was named as “ Jeevan Shikshan ” in the year 1956. It is still continued under the control of the State Institute of Education, Pune.

The main objective of the publication of this magazine is to make the teachers familiar with the new trends in education and innovative practices in primary schools.

The issues of “ Jeevan Shikshan ” contain articles on experiments carried out in schools, educational thoughts of great-thinkers and educationists, Profiles of awardee teachers and research in primary education.

So far, 332 issues of this monthly including special issues have been published. It is circulated among 16000 subscribers all over the state.

8.6 “ SHIKSHAN PRAVAHA ” (A periodical on current educational trends in Marathi)

In order to acquaint the persons working in administration of education with current researches in education, the State Institute of Education, M. S. publishes a monthly in marathi viz. ‘Shikshan Pravaha’. It is meant for internal circulation. The first issue of “ Shikshan Pravaha ” magazine was published on 1st October, 1979 i. e. on the auspicious day of “ Vijaya Dashmi ”, saka 1901. So far 40 issues of the same have been published. Every issue of the periodical comprises of 4 to 5 summaries of research articles/innovative practices published in national and international Educational Journals. Most of the articles are chosen on the basis of the feasibility and need of the administrative personnel in the department. The periodical is circulated to officers right from Education Secretary to the Education Officer at the district level every month. About 100 officers are benefitted by the educational material published in this magazine.



SECTION - II

STATE - LEVEL INSTITUTES

1.1 Qualitative Improvement Programme in Educationally Backward Areas of Maharashtra

The scheme of Qualitative Improvement Programme in educationally backward areas has been started during the year 1978-79.

the objectives of the Scheme are as follows :

- i) To increase enrolment of boys and girls of the age group of 6 to 7 years in schools from these areas to the maximum extent of 100%.
- ii) To minimize wastage and stagnation of pupils in primary standards I and II.
- iii) To improve the quality of single teacher schools in the area.
- iv) To facilitate maximum use of teaching-learning material and different types of educational aids by teachers.
- v) To improve the quality of teaching English in Standards V to VII.
- vi) To conduct orientation programmes for teachers so as to enable them to use modern techniques of teaching various subjects effectively.
- vii) To conduct programmes of educational and vocational guidance for pupils and teachers of secondary schools in the area.

Criteria for selection of backward beats

In selecting educationally backward block and beat in each district of the State, mainly the percentage coverage of pupils enrolled between the age group of 6 to 11 and 11 to 14 years was taken into account.

Planning of the project

This project is being implemented in seven stages beginning from 1978-79 to 1983-84. The main items included in the programme are (i) collection of bench mark data, (ii) orientation of teachers of single-teacher schools in various school subjects and modern methods of teaching, (iii) enrolment of pupils of age group of 6 + and 7 +, (iv) gradation of primary schools, (v) preparation of low-cost teaching aids, (vi) Institutional planning, (vii) organisation of non-formal school complexes, (viii) career conferences and (ix) evaluation of the project.

Achievements

This project is in the 5th stage at present. Officers appointed by the State Institute of Education as contact officers for all the districts have implemented the programme as per the stages specified.

The contact officers of SIE have paid frequent visits to their areas with a view to improving the quality of primary education.

They have been successful in increasing the enrolment in schools. The retention of pupils has improved and stagnation has been considerably reduced.

All the Heads of state level institutes have prepared their programmes and implemented them in these areas to achieve qualitative improvement. This will be continued upto stage VIII, when the achievement will be finally evaluated.

1.2 The Rapport Based Programme of School Improvement

Objectives of the programme :

The main objective is to improve secondary schools along with their feeder primary schools which are much below average, by establishing rapport with the person concerned without additional financial burden on the state exchequer.

The programme originated with the experiment of the Director of Education, M. S., Shri V. V. Chiplunkar, in which he himself adopted a secondary school at Charholi, Dist. Pune. in the year 1977.

By establishing rapport with the Head Masters, teachers and villagers he succeeded in raising the standard of the secondary as well as the primary schools in the complex. The programme was then extended to the officers of the Education Department working at the district and block levels and it could take a formal shape in 1980.

In the rapport-based programme adopted on voluntary basis, each officer select a weak secondary school which is constantly giving low examination results, adopts this school along

STATE LEVEL INSTITUTES IN MAHARASHTRA

The following five State level institutions function as the academic wing of the Directorate of Education :

1. State Institute of Education, Pune 30.
2. State Institute of Science Education, Nagpur 10.
3. State Institute of Audio-Visual Education, Pune-30.
4. State Institute of English for Maharashtra, Bombay-1.
5. State Institute of Vocational Guidance and Selection, Bombay-1.

The Director, State Institute of Education holds the status of the Joint Director of Education and works also as the Jt. Director (Training) and as such supervises the Training Branch of the Directorate.

The salient features of the quality improvement programmes being carried out by these institutions are given below :

1. STATE INSTITUTE OF EDUCATION, MAHARASHTRA STATE, PUNE

The State Institute of Education, Maharashtra was established at Pune in 1964. Originally its functions were limited to the improvement of primary education. But from 1977 onwards functions related to pre-school, secondary and higher secondary levels were added. Now the role and functions of the State Institute of Education are as follows :

- i) To act as an agent of change in school education, life-long, non-formal education in general and teacher education in particular ;
- ii) To arrange for the inservice training and orientation of inspecting officers dealing with the pre-school, primary, secondary and Junior Colleges (Higher Secondary) education in the State ;
- iii) To arrange for the inservice training of teacher-educators working in the teacher training institutions for the teachers of schools and Junior Colleges in the State ;
- iv) To organise programmes, including correspondence-cum-contact courses for the overall professional development of teachers, teacher-educators and inspecting officers ;
- v) To provide extension services to teacher-training institutions at all the levels in the State ;
- vi) To co-ordinate the work of extension services centres of the teacher training institutions in the state ;
- vii) To produce instructional material for the use of educational institutions and teachers in the state ;
- viii) To conduct studies and investigations in the various problems of education in general and in the training of teachers and the teaching of subjects at different State levels in particular ;
- ix) To co-ordinate programmes of different State Level Institutes as well as Subject Teachers' Associations in the State ; and
- x) To undertake specific projects at all the levels of education as may be entrusted to it by Government from time to time.

Since its inception, this Institute has undertaken various activities and programmes pertaining to (a) training of teachers, (b) providing extension service to schools and training colleges, (c) publishing source material for teachers and teacher-educators, (d) conducting studies and investigations, (e) preparing primary school curriculum, etc. In order to achieve the objectives given above the work of the Institute has been shouldered by the following sections :

(i) Training Section, (ii) Extension Section, (iii) Research Section, (iv) Evaluation Section, (v) Occupational Education & Training Section, (vi) State Board of Teacher Education, (vii) Programmed Learning Unit, (viii) Publication Section, (ix) Correspondence Course Unit, (x) Curriculum Development Unit, (xi) CAPE Unit, (xii) Population Education Cell.

A detailed information highlighting special measures launched by this Institute towards the improvement of quality and content of education in general and in backward areas in particular is given below :

with its feeder primary schools, establishes rapport with the persons concerned and makes systematic efforts to raise the quality of the school in the complex.

Seven Dimensions of the Programme

The programme is carried out according to the Seven-point plan given below :

(i) **Gradation of Schools** : Gradation tool is prepared by the State Institute of Education Pune. The Head Master grades his own school in one of the categories from A to E as per the scale provided.

(ii) **Institutional Planning** : Specific defects of the school are located with the help of the gradation tool. Short and long range plans are prepared to remove the defects and also to raise the standard of the schools.

(iii) **School Improvement Programme** : Rapport is established with the villagers and they are appealed to contribute in cash or kind for the improvement of the schools.

(iv) **School Complex** : The secondary school and its feeder primary schools are brought together to form an informal complex. The heads and the teachers of both the secondary and primary schools meet frequently so as to become members of the school-complex-family.

(v) **Programme Planning** : Based upon the specific needs of the constituent schools various curricular and co-curricular programmes are prepared by the teachers of the school-complex.

(vi) **Establishing Rapport** : Rapport is the vital force of the entire programme. The officer in charge establishes with the Head Masters, teachers and villagers and encourages various functionaries in the complex to establish effective rapport amongst themselves.

(vii) **Evaluation** : Schools are again rated at the end of the year by using the same gradation tool so as to measure improvement or otherwise in the individual schools.

1.3 School Complexes in Maharashtra

The scheme of school complexes was initiated in the year 1968 vide Govt. Resolution No. ECR-1166 dated 2-11-1968.

Objectives

- i) To break the isolation of educational institutions at different levels. This would eliminate the present tendency to blame the next lower stage for unsatisfactory standards.
- ii) To help cross-fertilization of ideas and mutual cooperation in carrying out programmes of qualitative improvement of schools in the complex.
- iii) To infuse elasticity and spirit of experimentations among teachers.

Present Position

The school complexes have been expanded from year to year from 1968. At present 539 formal school complexes are functioning in the State out of which 108 school complexes have been established in T. S. P. area and 431 school complexes in non-T. S. P. area. Mostly these school complex centres are established in the rural areas and educationally backward areas.

Achievement

These 539 school complexes cover about 6000 primary schools. The central secondary schools extend guidance and orientation facilities to the primary schools.

Regionwise meetings of the Heads of secondary schools in the scheme are convened every year. The officers of S. I. E. guide them to prepare a minimum programme of improvement for primary schools. The school complexes have helped the primary schools to improve enrolment, reduce stagnation and improve retention. These centres organise training programmes, orientations, workshops for preparing teaching aids. The primary schools are benefited in many ways. The laboratories, libraries and educational equipments of the secondary schools are made available to the primary schools, thereby helping them for qualitative improvement.

1.4 Financial Assistance Scheme for Action Research Projects in Education

Objectives of the Scheme :

The above scheme is being implemented since 1969-70, as per Government Resolution, No. TCM-2868-A (E & S. W. D.) dated 18-6-1969. The main objectives of the scheme are as under ;

- i) To promote research in education by persons working in the field.
- ii) To give financial Assistance for the research work aiming at the qualitative improvement of the education.
- iii) To provide technical guidance to research workers taking up action research projects under the scheme.

Criteria for Selection of Action Research Projects

An amount of Rs. 10,000 is earmarked for this purpose every year. The candidates selected by the selection committee are given help and guidance in the methodology of action research and preparation of their own project-designs in a workshop. The candidates are expected to complete their projects within a year. The project-reports received from the awardees are then referred to members of the Selection Committee for evaluation. Certificates are issued to the candidates completing the projects successfully.

Achievements of the Scheme

Since the inception of the scheme (1969-70) 111 action research projects have been undertaken by teachers and Head Masters working in primary and secondary schools as well as teacher educators from Junior and Senior Colleges of Education. Out of the above projects 81 action research projects have been completed so far. Most of the topics selected for action research projects cover areas like school administration, methods of teaching, curriculum and textbooks, Educational and vocational guidance, etc. ultimately helping qualitative improvement of education at various stages.

The findings of these action research projects are brought to the notice of teaching community for their professional enhancement through seminars, workshops and training courses organised by this Institute or agencies like extension services departments of colleges of education and teachers' organisations in the State. The total expenditure incurred on this scheme upto now is to the tune of Rs. one lakh.

Special Feature of the Scheme

State Institute of Education is recognised as a Post-Graduate Research Institute by the University of Poona and candidates who wish to work for Ph. D (Edn.) are registered for the same through this Institute. However, such candidates who cannot go in for the degree are provided with facilities for action-research in education for solving practical problems of education in general.

1.5 Other Research Projects

Besides the above scheme, the SIE takes up research projects on some pressing needs of the day. Some of these projects have been specially assigned by the department. Forty such research projects have been completed by the SIE so far.

1.6 Research Bulletin

A Quarterly 'Research Bulletin' is published for the guidance of research workers in Education. The Bulletin gives wide publicity to the research in education at different levels. It has a circulation of 500 copies and is distributed to all B. Ed. Colleges, D. Ed. Colleges, Universities, Extension Service Centres and some eminent educationists. The copies are also sent to all State Institutes of Education, Regional Colleges of Education in India as well as N. C. E. R. T., New Delhi. The Bulletin contains abstracts of Ph. D. and M. Ed. theses, Research reports and book reviews. The material published is found useful for teachers working at different levels of education.

1.7 Primary Education Curriculum (PECR - UNICEF Aided Project II)

The target of providing primary education facility to the children between the age group

group 6-14 has been almost achieved in the State. The problem now attracting attention is how to motivate all children enrolled to attend school regularly and complete the course satisfactorily.

One of the reasons why children do not attend, fail or leave the school half year is the rigid curriculum. The traditional curriculum fails to meet the needs of children. It does not suit their varying life styles. The project is therefore designed to develop innovative curricula in a decentralised form. It is in the experimental stage and ideas tested are expected to be infused in general curriculum in due course.

Objectives of the Project

- (i) To develop innovative curricula which can meet the educational needs of children specially from weaker sections ;
- (ii) To adjust the curriculum to the life style of the child ;
- (iii) To increase the meaningfulness of existing primary education.

Scope

The project is implemented in 30 primary schools from pilot phase i. e. 1975 and is extended to 100 additional schools. Thirteen Teachers' Training Colleges cooperate with the State Institute of Education. The institute is the monitoring agency at the state level. Stds. I to IV are Covered under the Project. The schools are grouped under 7 clusters including (i) Rural plain area (ii) Forest tribal area of Vidarbha (iii) Hilly tribal area of Western Maharashtra (iv) Irrigated area (v) Sugar Factory area (vi) Coastal area and (vii) Urban slum area.

Procedure

The years 1979 and 1980 were utilised for preparation, survey and guidance from N. C. E. R. T. All preliminaries were completed during the years mentioned. The draft curriculum is prepared and it is introduced during 1981, July in Std. I. Other standards will follow in subsequent years.

Strategies for the implementation of the Project

- i) Stress on study of environment as subject and media for integrated approach.
- ii) Freedom to the teachers to modify any area as per needs with consultation with the T. T. I.
- iii) Flexibility in time-table.
- iv) Use of learning situations in and out of schools.
- v) Creating a joyful and lively climate for school work.
- vi) Weightage to the development of competencies rather than to the content.
- vii) Use of decentralised instructional material.

Preparation of Instructional Material

It is proposed to change the textbooks. The teams will prepare supplementary reading material for different clusters using their specifications gathered from survey. Tools for evaluation of students and try-out of instructional material are prepared with the help of project teacher and teacher educators. The curricula and instructional material will be revised after try-out.

Training

The key personnel are trained at N. C. E. R. T. and at S. I. E. Training of teachers is done at T. T. I. level.

Achievements

- i) The teachers are now friendly with the team members and are ready to discuss, to innovate, to read and to experiment.
- ii) They try to utilise the environmental situations.
- iii) The students are free. They share group activities like singing, conversation, etc. The climate is getting changed.
- iv) In the pilot phase we have found increase in the enrolment and the attendance.
- v) Some teachers and teacher-educators have developed expertise in curriculum-framing, preparation of instructional material and they have developed to other schemes like population education, moral education etc.

vi) The State Level Committee for curriculum-revision has accepted Minimum learning competencies as basis for the curriculum. The competencies are located through this project.

vii) The suggestion for introduction of environmental studies in stds. I and II has been accepted by the Committee and the syllabus is submitted to the State Govt. for approval.

1.8 Training Programmes for Teachers and Teacher-educators

The SIE is conducting a variety of Inservice Training Courses for Extension Officers, Teacher-educators, Primary Teachers, Secondary Teachers, Craft teachers, Administrative Officers, Principals of B. Ed. and D. Ed. Colleges, etc. Workshops on different subjects also have been arranged. A scheme of continuing Education is being carried out every year throughout Maharashtra. In service training courses are conducted for primary teachers in 100 centres in the state besides correspondence-cum-contact course for untrained teachers in service.

(a) Scheme for Tribal Areas

A special training course for improvement of quality of education in tribal area was conducted by this Institute. The course was for primary teachers in tribal area. The details are as follow :-

Objectives

- i) To make the teachers conversant with the special problems in learning processes of children in tribal areas.
- ii) To initiate them to use work and activity methods in teaching of different subjects.
- iii) To make them conversant with the dialect and its use in teaching.
- iv) To enrich their curriculum content.
- v) To train the teachers in various forms of work experience.
- vi) To innovate the techniques of habit formations in health, hygiene and social life among the children.

Content of the Course

In-service training was imparted in Marathi, English, Hindi, Mathematics, Science, Social Studies and Work Experience.

Apart from these subjects, the following subjects were also covered under the programme :

- (i) Life and Culture of Tribal people, (ii) Tribal Dialect, (iii) Drawing, Paper Work and story telling, etc., (iv) Social Development Programme, (v) Preparation of Audio-Visual aids.

Achievement

The duration of each course was of 15 days. Twenty three courses were conducted and total no. of participants was 915. Courses were conducted in Districts with concentrated tribal population, e. g. Pune., Ahmednagar, Nasik, Thane, Dhulia, Jalgaon, Chandrapur, Amaravati, Yeotmal and Nanded. Teaching material and the books were distributed to the schools through the Education Officers of the Districts.

(b) Scheme for teachers in Ashram Schools

A new scheme for training Primary teachers in Ashram schools is under implementation. The duration of the course will be of 28 days. Training will be imparted through Jr. Colleges of Education in 13 districts.

1.9 Population Education Programme

The scheme-Population Education Programme has started in Maharashtra from 15th July 1981. The duration of the scheme is till March 1985.

The Objectives of the Programme

- i) to help students develop an insight into inter-relationships between population growth and the process of social and economic development at the individual, family, society, national and international levels;
- ii) to make the children and teachers aware of the population situation in the country and targets and efforts of the Govt. of India in solving this problem;
- iii) to institutionalize population education in the formal education system, including universities and non formal education programmes at the national and state levels and

- iv) to develop desirable attitudes and behaviour in the teachers and students as well as the community at large towards population issues, so that they may take rational decisions about their family size and the quality of life that they would like to have.

For the effective implementation of the scheme a special cell with full time staff of one Class I and four Class II officers has been set up in the State Institute of Education. The total outlay of the scheme is of 42.2 Rs. lakhs out of which UNFPA contribution is of Rs. 39.80 lakhs and State contribution is of Rs. 2.22 lakhs.

It is envisaged to cover the following target groups under this scheme :

i) Students in Upper Primary Schools (16500).	-	24,59,000
ii) Students in Secondary schools (5905).	-	13,69,000
iii) Pupil teachers in Junior Colleges of Education (130).	-	12,028
iv) Pupil Teachers in Colleges of Education (47).	-	8,128
v) Head Masters/Teachers in Upper Primary Schools.	-	16,500
vi) Secondary School Teachers/Head Masters.	-	12,00
vii) Primary Teacher educators.	-	260
viii) Secondary Teacher educators.	-	94
ix) Primary School Inspectors.	-	1,500
x) Educational Administrators at the District and Regional levels.	-	40

Since the inception of the scheme the cell has started working vigorously and has almost completed the schedule of activities planned for the year 1981-82. The schedule of activities during 1981-82 includes preparation of Instructional material for pupils of Upper Primary schools and Secondary schools, pupil teachers of Junior Colleges of Education and Colleges of Education, besides status study of Population education and Training of Resource persons.

2. STATE INSTITUTE OF SCIENCE EDUCATION, NAGPUR

This Institute was established at Pune in 1968 with a view to improving the quality of Science teaching in schools in the State. Since 1980 the Institute has been shifted to Nagpur. The role and functions of the Institute are as follows :

- i) To provide Orientation and training to the staff of training institutions for primary teachers and inspecting officers of primary schools when they enter into their career.
- ii) To provide literature (inclusive of teaching aids) for primary schools and teachers.
- iii) To arrange for the inservice training of teacher-educators, Laboratory Assistants working in the teachers training institutions, for the teachers of schools and Junior Colleges in the State.
- iv) To conduct studies and investigations in the various problems of education in general and in the training of teachers and the teaching of Science subjects at different levels in particular.
- v) To purchase the Primary kit boxes through CSPO and supply to the primary schools.
- vi) To organise State Level Science Exhibition and recommend the Science exhibits for National Level Exhibition.
- vii) To undertake specific projects as may be entrusted to it by Government from time to time.

The activities of the Institute are as follows :

2.1 UNICEF aided Project in Science Education

In collaboration with the UNICEF and the NCERT this Institute has undertaken a project in the State. Ten thousand divisions of Std. IV and 5,700 of Std. V are included in this project in addition to a good number of divisions of Stds. VI and VII. The Institute has prepared Marathi versions of textbooks prepared by the NCERT which are used in the project. The books are made available to students through M. S. Bureau of Text-Book Production and Curriculum Research. Teachers' Handbooks also have been prepared and published to support these textbooks. Specially prepared Science kits are provided free of cost to the schools included in the project. This project is conducted with the help of 19 Junior Colleges of Educations and 7 Colleges of Education in the State. They also are supplied with the kits. The scope of the project is proposed to be widened by including more and more schools gradually.

2.2 Training of Primary Teachers

The effective implementation of the enriched science syllabus mainly depends upon the training of teachers. Various courses have been conducted at in-service training centres located at junior colleges of education. These courses are of 28 days, duration and vigorous training in acquainting the syllabus. The new approach and demonstration of experiments through a primary kit box is given to the teachers, so that they do not find any difficulty in implementing the programme. In addition to these courses, short term courses of 8 days duration are also being organised at district level in D. Ed. Colleges.

Right from 1977-78 to 1980-81 the Institute has organised 474 courses in which 12819 teachers have been trained.

2.3 Kit Boxes

To purchase primary kit boxes through Central Scientific purchase organisation (C. S. P. O.), Bombay and supply them to the Primary schools is a regular activity of this institute.

There are 81 items in the kit box. This kit box is very popular among the primary teachers as it provides all the necessary equipment required for demonstrating all experiments from Stds. I to IV. In all 47,107 kit boxes have been supplied to primary and middle schools throughout the state during the period from 1974-75 to 1980-81.

2.4 Science Exhibition

With a view to expose and encourage the scientific talent in the children and to develop creative thinking and habit of exploration amongst the children, science fairs and State Level exhibition are organised in the State.

Since 1975 the State level science exhibitions are being organised in collaboration with Nehru Memorial Fund and N. C. E. R. T., New Delhi. So far the science exhibitions have been organized at Bombay (1975-76), Pune (1976-77), Nagpur (1977-78), Aurangabad (1978-79), Kolhapur (1979-80), Amraoti (1980-81) and Nasik (1981-82).

At District and State level exhibitions working models, projects, charts, etc. prepared by students from two groups namely (i) Std I-VII and (ii) VIII to XII are exhibited. The selected exhibits winning prizes at state level exhibition are recommended for National level exhibition. In state level exhibitions special prizes are given to the entries from tribal areas.

2.5 Orientation of Laboratory Assistants and Laboratory Attendants

With the introduction of 10+2+3 pattern in the state in the year 1972-73 laboratory assistants have been appointed in secondary schools so also in many of the schools laboratory attendants are working, helping the science teachers in carrying out the laboratory work. Taking into consideration the work that laboratory assistants and laboratory attendants have to do it was a felt need to orient both the types of personnel by arranging special courses for them. Ten days courses were framed by this institute separately for each of the categories. Also hand books have also been prepared for the guidance of the laboratory assistants/ attendants to help them in day to day work. From 1977-78 to 1980-81 number of courses organised is 49. In all 1332 participants are benefited by these courses and the financial input is of Rs. 2,52,100.

2.6 Orientation of Method Masters and Extension Officers

The extension officers are the key officers in the field of primary education. They supervise and inspect the primary schools. They also work as a guide to the primary teachers in implementing the new syllabus in primary schools. In short the success of the programme depends on the efficiency of these extension officers. As such they should be given minimum orientation in modern trends and techniques in the field of education in the light of revised syllabus especially in General Science and N. C. E. R. T. Science syllabus. These officers are deputed for 10 days to this institute for orienting them specially for science subjects.

Most of the training courses for primary teachers are conducted in various junior colleges of Education. The method masters in these institutions work as resource persons. Hence it is essential to orient these personnels in modern techniques of teaching of science. No. of courses are organised in S. I. S. E. every year to serve the purpose.

2.7 A Science Forum for Talented Students in Secondary Schools

The scheme of science forum was first introduced in 1978 for talented students in secondary schools with the following objectives.

- (i) To encourage pupils in development of scientific skills, habit of expression, creativity and critical thinking in various investigations.
- (ii) To encourage the students to appear for N. T. S. Examination.
- (iii) To develop Scientific talent in different areas and to integrate scientific ideas to daily life situations.

Under this programme 30 pupils from rural areas (Group B) and 43 pupils from urban areas (Group A) are selected on the basis of marks obtained in science and mathematics in Std. VIII through a test.

The programme consists of lectures, quiz competitions, film shows, science projects, demonstrations, reading of books, practical work, interviews and excursions.

The following table gives the idea of the districts taking the advantage of scheme and the amount utilised.

Sr. No.	Year	Amount in lakhs	Districts covered
1.	1979-80	1.05 lakhs	21
2.	1980-81	1.24 lakhs	26 (Including Greater Bombay)

2.8 National Talent Search Examination

One of the objectives of Science Forum Scheme is to encourage the students to appear for N. T. S. Examination. This Institute has taken the initiative to popularise the scheme in the State.

As a first step in this direction. the institute organised a two-day conference on N. T. S. of the field staff of S. I. S. E. and coordinators of B. Ed. Colleges on 5th & 6th March, 1981. An appeal was made to these personnel to popularise the scheme and to provide adequate guidance to candidates appearing for N. T. S. Examination at their level.

The Institute also conducted a camp of 8 days duration for the guidance of pupils appearing for N. T. S. Examination. The N. C. E. R. T. has increased the number of scholarships and the additional sets of scholarships are exclusively reserved for the candidates belonging to S. C. & S. T. Following this decision, the S. I. S. E. conducted a 3-day shibir for the selected S. C./S. T. candidates from all over Maharashtra.

A cyclostyled hand book has been brought out and supplied to all science forum centres.

Thanks to these efforts, number of pupils from Maharashtra, winning these scholarships has increased this year.

2.9 Environmental Studies/Environmental Science : Preparation of handbook for Stds. I & II and Stds. III & IV

This Institute in collaboration with UNICEF launched a programme of environmental science studies in 1978. It has developed the handbooks for primary teachers with the help of 100% financial assistance from UNICEF. About 150 primary teachers were trained from Wardha, Jalgoan, Beed, Pune and Thane districts. The curriculum is now being implemented in 50 selected primary schools of the above districts.

The above said Handbooks have been revised with the help of 15 primary teachers, 3 Assistant Masters from D. Ed. Colleges and staff members of S. I. S. E., Nagpur. The revised Handbooks are being tried out in the concerned schools.

2.10 Grand-In-Aid to Junior Colleges of Education

Under this scheme the UNICEF has donated equipments worth Rs. 20,000/- to 81 junior colleges of education and 10 colleges of education.

These institutions are also receiving grant-in-aid to the maximum of Rs. 20,000/- every year on the basis of expenditure incurred for promoting the improvement of Science Teaching

and Laboratories. Posts of laboratory assistants to look after these equipments have also been created in most of the junior colleges in Maharashtra State.

2.11 Remedial Course in Mathematics

A Committee of renowned Mathematicians prepared a Remedial course in Mathematics for Std VIII. A diagnostic test based on important basic concept of maths stds. I to VII was prepared and administered in March, 1980, in 6 districts (Bombay, Pune, Jalgaon, Ratnagiri, Wardha & Aurangabad) in 55 schools on nearly 4000 students. From the result, the difficult concepts were Selected.

The Final curriculum was framed after the test result and the hand-books prepared were circulated in the said schools. The follow up programme was also chalked out. It is hoped that the basic concepts in Maths will definitely and clearly be understood by the students of class VIII and will improve the S. S. C. results ultimately.

2.12 Correspondence-cum-Contact Course

The survey of Educational qualifications of teachers teaching science and mathematics in secondary schools revealed that there are a number of undergraduate teachers who have to teach science subjects, no matter whether they have offered the subject at the graduation examination or not. So with a view to enriching their content knowledge and to improve their competence a correspondance-cum-contact course for these teachers was started.

Every year lessons on selected topics, in Physics, Chemistry & Biology for Std. VIII, IX & X are prepared by staff of S. I. S. E. and are circulated in tribal areas of Maharashtra State. From the remarks of the concerned teachers from tribal areas, it is found that the scheme is liked by all. Nearly 164 school from tribal area are being benefitted by this correspondence-cum-contact course.

3. MAHARASHTRA STATE INSTITUTE OF AUDIO- VISUAL EDUCATION, PUNE

In this age of space travel and technological progress there is no need to emphasise the importance of Audio-Uisual Aids in accelarating teaching-learning process and vitalising instruction. It saves time and labour. In order to promote Audio-Visual Education all over the state and to acquaint the persons engaged in the field of education with the normal working and effective use of Audio-Visual Equipment and material the State Govt. has established this Institute of Audio-Visual Education in 1966-

In order to acquaint persons working in the field of education with modern methods of communication, various types of training courses are conducted by this Institute. More than 5000 teachers, teacher educators and inspecting officers take advantage of these courses every year

The following are the details of such courses :

3.1 Types of training courses and field activities

Sr. No.	Nature of Activity	No. of courses	Approximate No. of participants.
i)	Pre-service training courses for B. Ed. & D. Ed. students.	31	4500
ii)	Inservice training courses for teachers, teacher educators and inspecting officers.	12	440
iii)	Specialised training courses such as Photography, Graphics, Puppetty, Technical & General course.	10	217

Field Activities

Sr. No.	Name of Activity	No. of shows	Approximate No. of participants.
i)	Film show	91	45500
ii)	Puppet shows	51	2720

3.2 Production

The Institute has undertaken the work of production of 35 mm. filmstrips based on school subjects. As they are directly related with topics from the syllabus. They are found to be very useful to the teachers in classroom teaching. More than 200 film-strips have been produced by the institute. They are supplied to the educational institutes in the State on demand on payment of no loss no profit basis.

3.3 Publications

The pamphlets, folders, posters on Audio visual education, films and film strips, catalogues have been published by this institute and the same are supplied to the educational institutions in the State for their reference on free of cost basis.

3.4 Guidance Service

Several institutions in the State seek guidance from this institute in regards to the purchase and use of Audio-Visual equipment and the same receives prompt attention. This year 80 institutions are given guidance

In order to acquaint the secondary school teachers with the preparation of lowcost visual aids and the use of projected aids this institute has carried out a training programme for secondary school teachers with the help of extension departments in colleges of education during the years 1974-79. In these five years about 5000 secondary school teachers from 28 districts in Maharashtra were oriented in the field of Audio-Visual Education.

In the same manner teacher educators from Jr. Colleges of Education were trained during the year 1974 to 1979. These programmes were arranged with the help of regional Dy. Directors. About 1200 teacher educators were trained in the field of education.

This institute also carried out the training programmes in Audio-Visual Education for the primary school teachers from the educationally backward areas in 26 districts. About 1500 primary school teachers took the benefit of the schemes.

In order to equip the high schools from tribal areas this institute has carried out a scheme of supplying Audio-Visual equipment and material to the high schools in tribal areas. It is being implemented from the year 1980-81.

Under this scheme 6 high schools from tribal areas were provided with the Audio-Visual equipment. In near future it is hoped that almost 30/35 high schools from tribal areas will be provided with the Audio-Visual equipment and material.

4. STATE INSTITUTE OF ENGLISH FOR MAHARASHTRA, BOMBAY

The State Institute of English for Maharashtra came into being as an English Language Teaching Institute, mainly devoted to training teacher-educators working in the Junior Colleges of Education in Maharashtra. The institute is started by the Government in 1965 for making the progress of education in English Language and for making teachers professionally more competent and receptive.

Aims and Objectives

The Government Resolution No. STC/2264- G of 29th May 1965 lays down the objectives as under :

The institute is to be set up for bringing about " an improvement in the teaching of English at primary and secondary stages " and then it describes the functions of the Institute as follows.

- i) To run nine months' courses to train the staff of the four regional Institutes proposed to be started subsequently and the teachers of English in the Secondary Teachers' Colleges.
- ii) To supervise the work of Regional Institutes of English.
- iii) To conduct the seminars and refresher courses for inspecting officers, principals of S.T. training Colleges; and
- iv) To conduct research on the teaching of English and prepare textbooks in the subject.

From its inception the chief task of the SIEM has been the pursuit of various activities related to the teaching of English in a dynamic and pragmatic ways. That is to

say the aim has always been the identification of crucial issues in the ELT field, devising ways and means to solve the problems in the light of new directions and dimensions and carrying out new projects in the concerned areas. The main activities of the institute are mentioned below :-

4.1 Training and Allied Activities

(a) Long-Term Courses

As has been mentioned earlier, the Institute was primarily set up for organising nine month courses for teacher-educators from Junior Colleges of Education.

The Institute ran three nine month courses in the beginning. Later the period was reduced to 7 months and the Institute ran two such courses before changing over the three and a half month course for teacher-educators. The Institute has run ten 3½ month courses so far. The reason for reducing of courses for the teacher educators was that the reduction facilitated the deputation of teachers by the Management which was reluctant to depute teachers for nine or seven months. It also paved the ground for training of more teachers in a year,

Besides the courses for teacher educators, the Institute decided to run courses of 3 months duration for secondary school teachers of Students VIII, IX and X with the sanction of the State Government in 1969. The Institute expand its activities and aimed at improving the teaching of English at the secondary school level also. So far the Institute has conducted 22 courses for secondary school teachers.

(b) Short-Term Courses

The Institute gives help to the extension Services Departments in the Colleges of Education of the State and help them to organise short-term courses of four to six days for the teachers of English by sending resource persons and materials from the Institute.

In addition to the Colleges of Education, the Institute helps the Headmasters Associations, English Teachers' Associations, Education Departments of Zilla Parishads and other educational agencies, in running such courses by lending expertise of the resource persons from the Institute.

The Institute has also run six days courses for the resource persons who in their turn conducted fifteen days courses for the secondary school teachers at various centres throughout the State as part of the Maharashtra English Language Teaching campaign started by the Institute. These courses were necessary to acquaint the teachers with the new ad-hoc syllabus and text-books which were specially prepared by the Institute after English was introduced as a compulsory subject in Western Maharashtra. This syllabus was called a condensed Course. This course was specially designed to bridge the gap between the structural items which the pupils missed in Stds. V, VI and VII and the structural items they learned in Stds. VIII, IX and X. The campaign was a great success.

The Institute also ran 6-day courses for resource persons from Arts and Science Colleges. These courses were organised to prepare the resource persons to train their fellow teachers who taught English to Stds. XI and XII after the introduction of new textbooks for these standards by the State Department of Education.

4.2 Production of Instructional Material

(i) Teachers' Guide (For teacher-educators from Junior Colleges of Education).
 (ii) Remedial English Exercises for Std. V, VI, and VIII. (iii) Readers' Handbooks and Workbooks for the Condensed Course. (iv) Handbook for teachers' of Std. V. (v) Readers' Handbooks and Workbook for Std. VIII, IX and X. (vi) Editing of Readers for Std. XI and XII. (vii) Publication of Reports on the error analysis of Std. XI answer scripts (old course) of S. S. C. Exam. and survey of teaching methods in Stds. V, VI and VII in the State of Maharashtra. (viii) Handbook for the Resource Persons of (a) M. E. L. T. Campaign (b) Standard X and (c) Standard XI and XII.

4.3 Expertise to Other Organisations

The Institute lends expertise to the following organisations;

- i) Maharashtra State Bureau of Textbooks and Curriculum Research.
- ii) State Board of teacher Education,
- iii) All India Radio

- iv) Educational Technology Cell,
 - v) State Board of Secondary and Higher Secondary Education and
 - vi) Other agencies interested in ELT.
- The Institute conducted the following Research Projects :

- i) Error Analysis of the answer-scripts of the Std. XI students at the S. S. C. Examination. This provided a feedback to the teachers of English as to what they should do to make away with these mistakes
- ii) Survey of Teaching Methods, used by the teachers of Srds. V, VI, and VII in the schools of Maharashtra. This project helped the Institute to devise a programme to improve the academic and professional competence of these teachers.

4.4 Language Laboratory

The Institute acquired the Language Laboratory in 1976. The Laboratory has extensive taped material and tape-recorders. It helps in improving pronunciation of the trainees. The Institute also extends help to local Colleges of Education. The Institute also renders help to the educational institutions in the State if they seek help in getting the material taped on the blank cassettes.

5. INSTITUTE OF VOCATIONAL GUIDANCE AND SELECTION, BOMBAY

Towards the end of 1950, the Government of Bombay, set up the Vocational Guidance Bureau in Bombay with the following objectives.

Objectives

- i) To collect the Occupational Information for the guidance of school leaving boys,
- ii) To prepare a Cumulative Record Card for use in schools and
- iii) To construct Psychological Tests suited to Indian conditions.

In 1957, the Bureau was expanded and converted into the Institute of Vocational Guidance with emphasis on training and research. Simultaneously, two Sub-Bureaus were established one each at Pune and Ahmedabad to look after the guidance services in these Regions and to make expert guidance available at the Regional headquarters.

In 1960, with the bifurcation of the Bombay State, the Sub-Bureau at Ahmedabad was transferred to Gujarat State. Under the Third Five Year Plan the Institute of Vocational Guidance was upgraded into the Institute of Vocational Guidance and Selection in view of its increasing help requested by industries for selection purposes.

5.1 Occupation Information Service

The Institute collects information about training course/courses—both university and non-university, occupations, apprenticeships, jobs, etc. This information is disseminated to the students and the public through the replies to personal and postal queries, career talks in schools, compilation and publication of career literature in the form of pamphlets, monographs and folders, organising careers exhibitions and careers conference, articles in the press, radio and television talks and through the career masters trained by the Institute. The institute publishes a quarterly newsletter which is circulated to all the career masters to keep them abreast of the latest development in the field of guidance and also sends them copies of important advertisements from time to time.

5.2 Psychological Tasting Service

Individual counselling for the choice of an appropriate career is given to those who call personally at the Institute and need it. This work is mainly done in summer upto about a week before the declaration of results. Psychological testing is done to assist Head Masters of Schools in the selection of pupils for admission, in classifying pupils for the different diversified courses, Government departments and private industries in selecting apprentices, scholars or recruits to specific jobs. Restandardisation of suitable foreign tests, construction and standardisation of psychological tests suited to Indian conditions and validation studies for purpose of predicting success in various training courses and occupations are undertaken.

5.3 Training Programmes

The Institute conducts two types of courses – (i) the Career Master's Certificate Course of full-time three weeks duration with emphasis on occupational information. Teachers trained in this course work as Career Masters in their schools where they are expected to be given one period weekly in Stds. VIII, IX, X time tables for dissemination of occupational information through career talks, etc. and (ii) the higher courses for specialised Diploma in Vocational Guidance of full time twelve months duration with emphasis on Psychological testing and counselling. Teachers trained in this course work as School Counsellors or Teacher Counsellors (i. e. full or part time Counsellors respectively) in their schools and use psychological test to assist the Head Masters in their selection and classification of pupils and the latter to help them in the choice of course or career. The Institute keeps in touch with the School or Teacher Counsellors trained by it through the Newsletter, visits to their schools by the staff of the Institute, Seminars, Refresher courses, the Annual State Vocational Guidance Conference, etc. The career Master's course is now conducted by the Vocational Guidance Sub-Bureau, Pune.

Since the inception of the Institute the major achievements are as follows :-

- i) No. of individuals guided personally - 4, 28, 146
- ii) No. of postal queries replied - 1, 78, 373
- iii) No. of pamphlets monographs published - 136
- iv) No. of posters, newsletters brought out - 205
- v) No. of career conferences organised - 1035
- vi) No. of cases of individual counselling - 8077
- vii) No. of Orientation courses conducted - 144
- viii) No. of career Masters' Courses conducted - 47
- ix) No. of career Masters trained - 1,750
- x) No. of courses in Dip. V. G. conducted - 25
- xi) No. of counsellors trained - 285
- xii) No. of psychological tests restandardised or newly constructed and standardised - 63
- xiii) No. of candidates for whom psychological testing was arranged - 7,00,000
- xiv) No. of candidates covered under the examination of Central and State Governments modernised with the help of the institute - 5,00,000.

Besides the above a lot of occupational information has been collected. Schools, Government Departments and private industries have been assisted on number of occasions.



APPENDICES

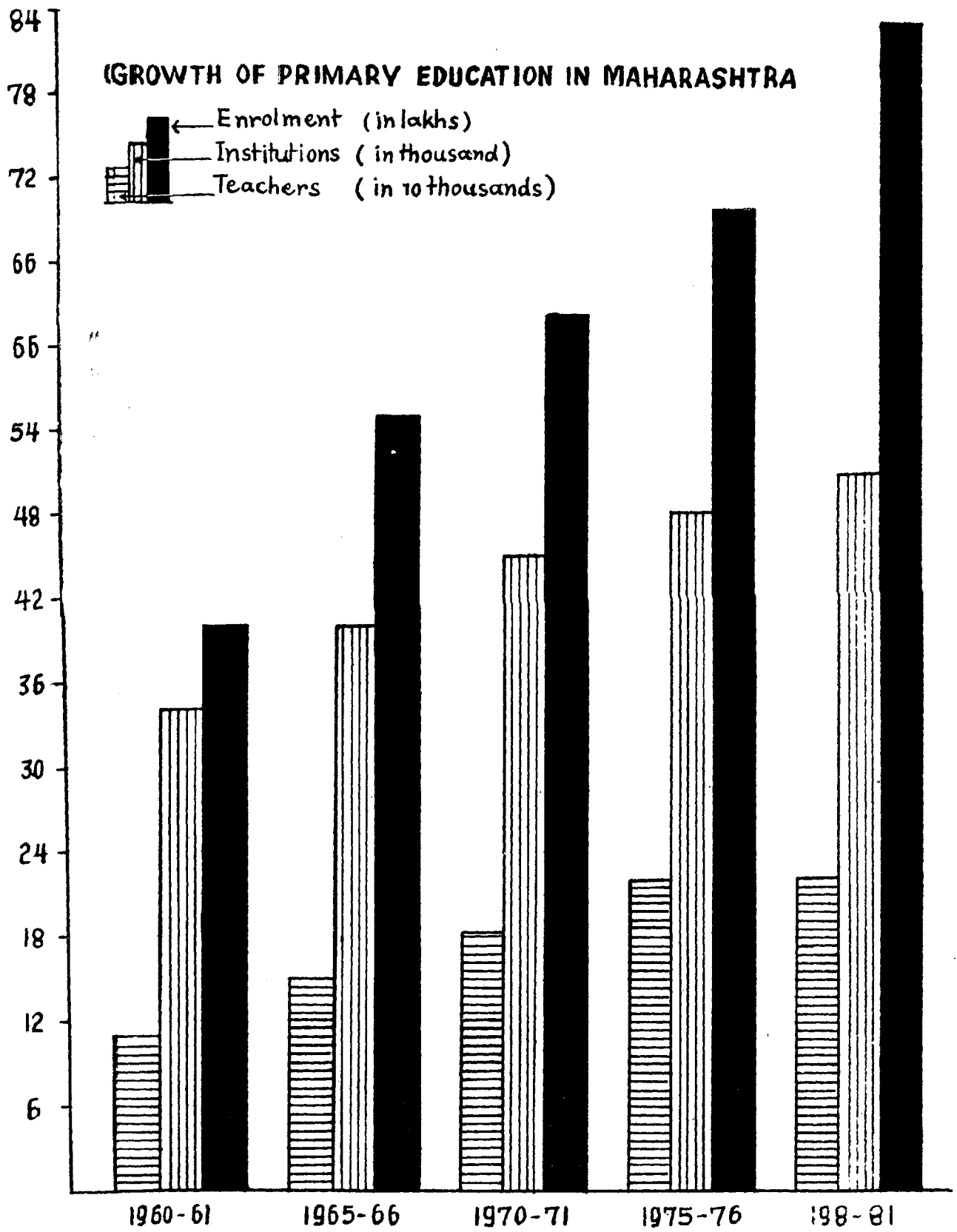
APPENDIX I
GROWTH OF SCHOOL EDUCATION IN MAHARASHTRA

Type	Item		1960-61	1965-66	1970-71	1975-76	1980-81
Pre Primary	Institutions	Total	527	448	704	850	855
		For Girls	-	-	-	-	-
	Enrolment	Total	0.34	0.32	0.61	0.61	0.64
		Girls	0.15	0.15	0.24	0.28	0.29
	Teachers	Total	1,351	1,188	1,636	1,833	1,647
		Female	1,283	1,134	1,601	1,790	1,570
Expenditure (Rs.)	--	16.95	19.99	37.29	54.09	* 87.23	
Primary	Institutions	Total	34,594	41,781	45,143	48,299	51,045
		For Girls	1,406	1,681	1,891	1,969	1,996
	Enrolment	Total	41.78	55.35	62.29	69.93	83.92
		Girls	14.95	20.92	24.28	28.69	36.05
	Teachers	Total	1,12,672	1,52,611	1,84,515	2,20,589	2,22,070
		Female	25,286	38,132	50,048	65,274	69,629
Expenditure (Rs.)	--	1595.59	2624.86	6198.87	10892.90	* 17745.68	
Secondary	Institutions	Total	2,468	4,032	5,339	5,810	6,119
		For Girls	249	362	419	439	432
	Enrolments	Total	8.58	15.00	19.37	24.42	33.09
		Girls	2.30	4.30	6.01	8.26	11.51
	Teachers	Total	35,038	57,428	76,530	95,531	1,14,065
		Female	8,522	14,711	20,385	26,251	32,223
Expenditure (Rs.)	--	997.78	1826.53	4119.54	7156.23	* 16007.67	

(The figures for Enrolment and Expenditure are in Lakhs)

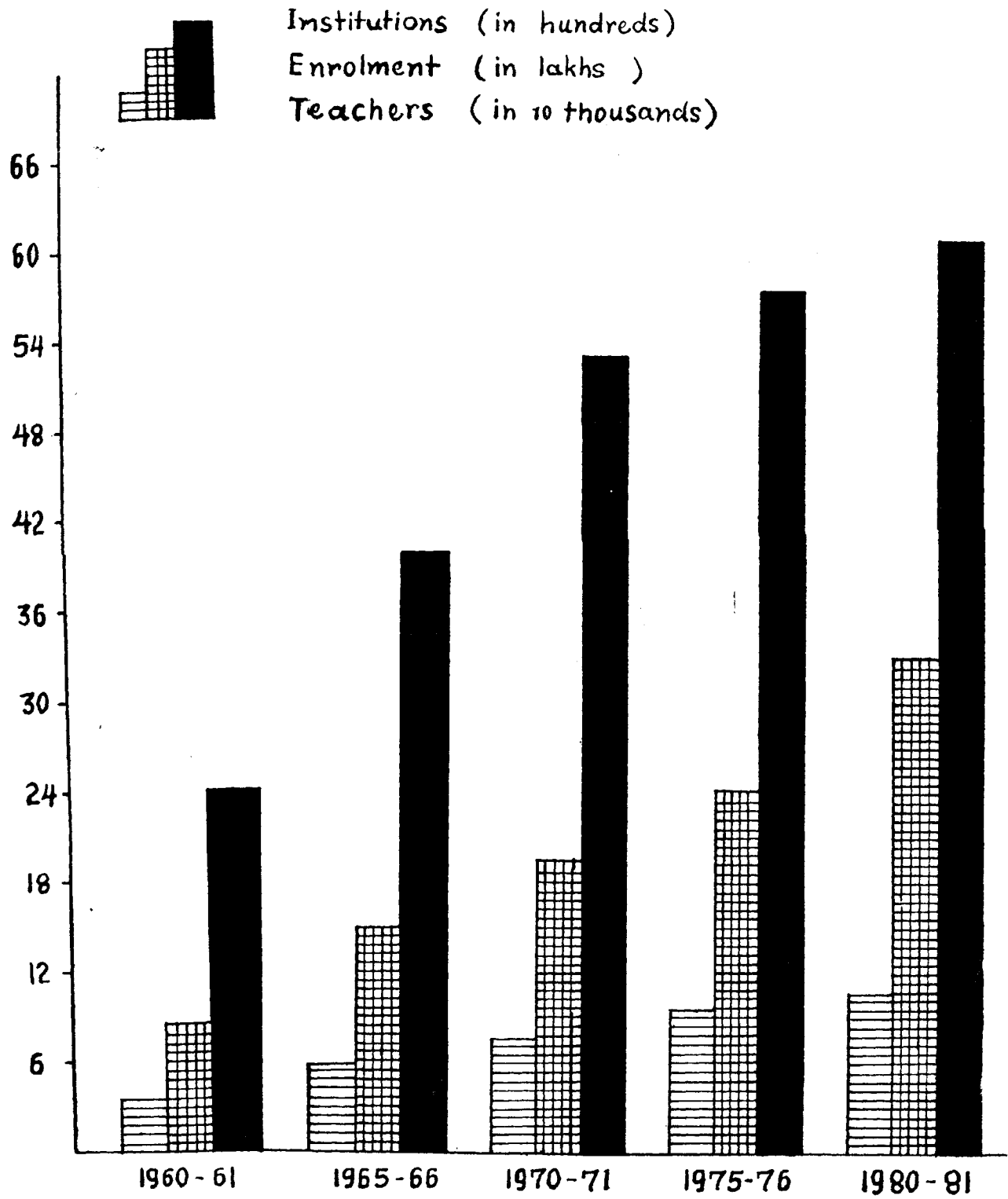
[* Estimated]

APPENDIX I (A)



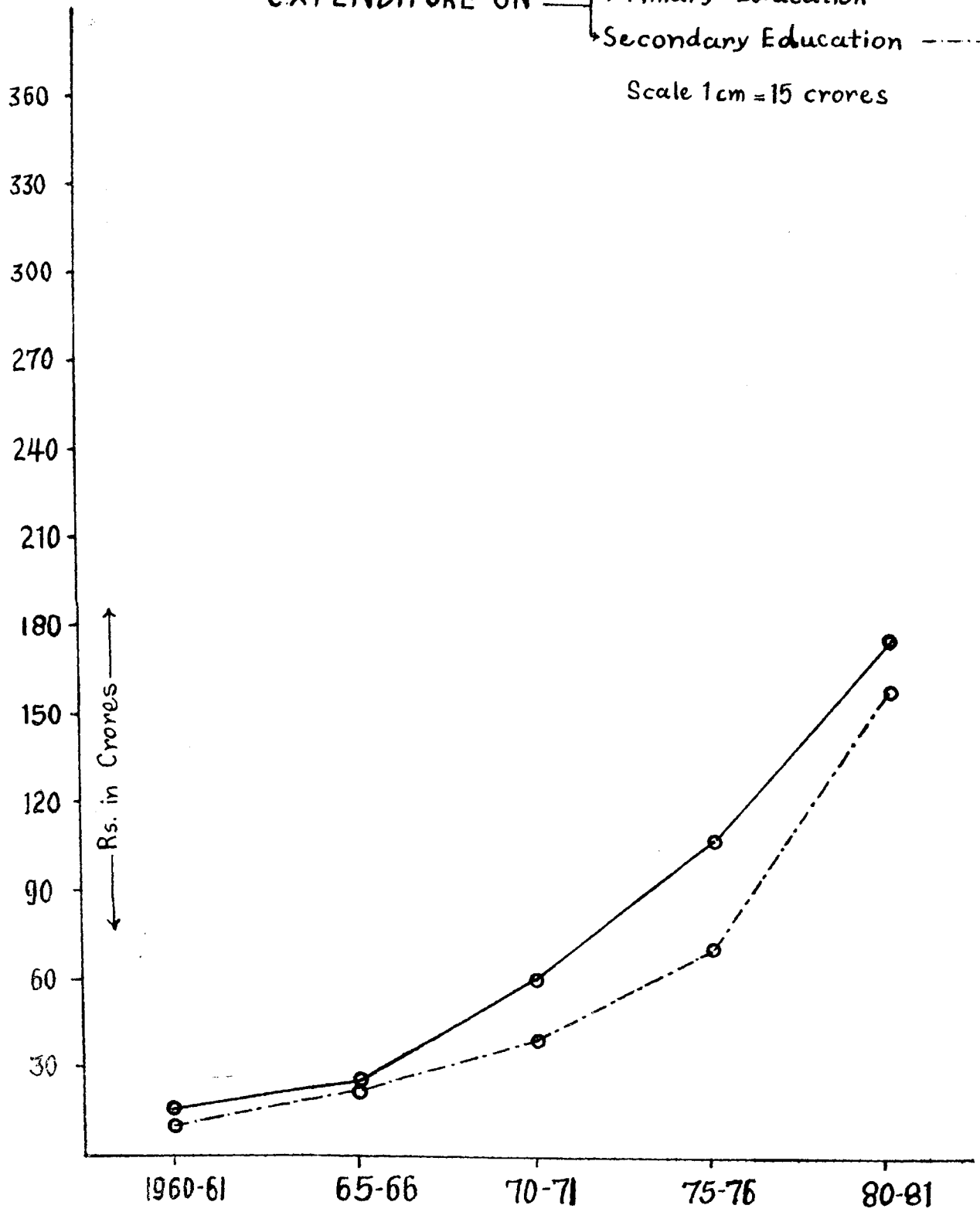
APPENDIX I (B)

GROWTH OF SECONDARY EDUCATION IN MAHARSHTRA



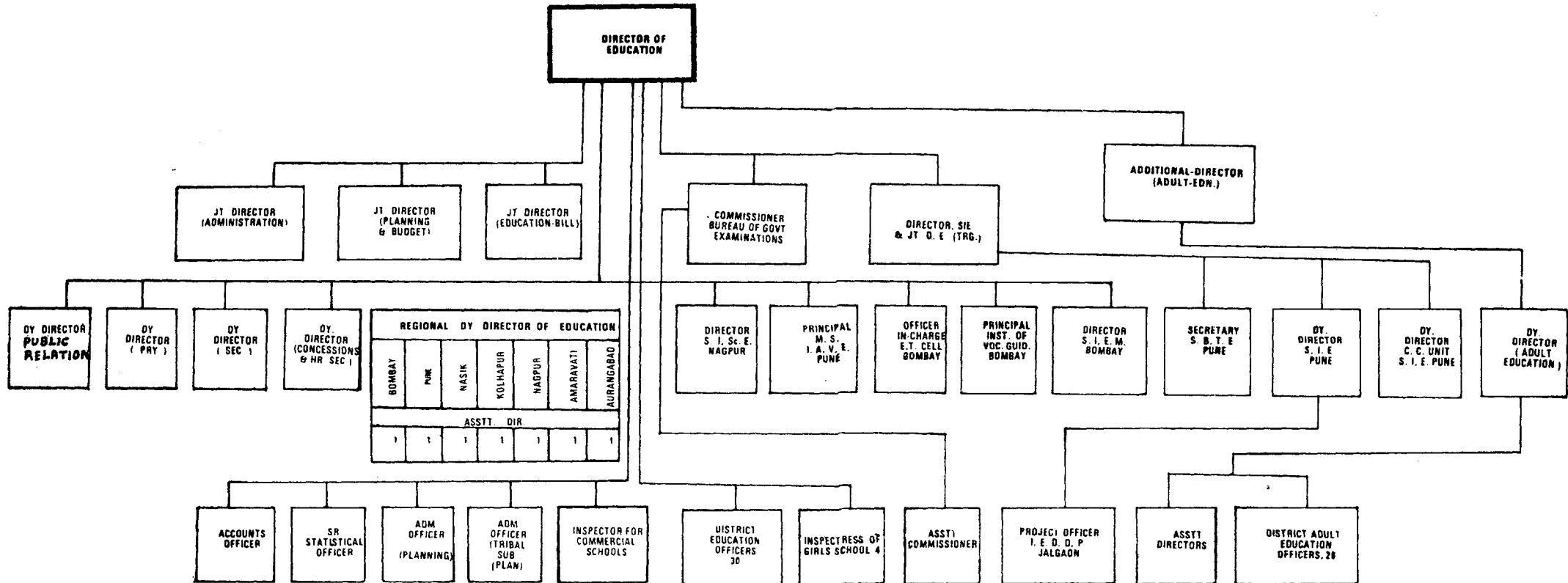
APPENDIX I (c)

EXPENDITURE ON — Primary Education —
Secondary Education - - -
Scale 1cm = 15 crores



APPENDIX II

ORGANOGRAM DIRECTORATE OF EDUCATION-GENERAL EDUCATION



Appendix - III

**Statement Showing No. of Secondary Schools According to Gradation as on
31st March, 1981.**

Sr. No.	Name of the District	No. of Schools	A	B	C	D	E	Total	Still to be covered
1	2	3	4	5	6	7	8	9	10
1.	Gr. Bombay North	259	37	78	106	27	11	259	
	- ,, - West	280	16	139	67	37	21	280	
	- ,, - South	199	34	73	47	25	20	199	
2.	Nasik	280	14	88	112	48	8	280	
3.	Thana	245	8	40	51	6	3	108	137
4.	Dhulia	173	14	39	87	32	1	173	
5.	Jalgaon	242	10	65	103	37	27	242	
6.	Pune	355	19	72	104	37	14	246	109
7.	Ahmednagar	256	27	112	97	17	3	256	
8.	Raigad	137	8	49	56	17	7	137	
9.	Solapur	230	6	55	116	30	23	230	
10.	Kolhapur	242	8	72	116	39	6	241	1
11.	Satara	256	11	62	111	41	15	240	16
12.	Sangali	228	5	57	103	42	21	228	
13.	Ratnagiri	135	-	36	69	25	5	135	
14.	Aurangabad	232	9	48	104	57	14	232	
15.	Beed	151	4	32	58	21	36	151	
16.	Nanded	146	1	36	62	36	11	146	
17.	Osmanabad	254	6	83	98	45	22	254	
18.	Parbhani	127	7	30	43	41	6	127	
19.	Nagapur	305	26	104	78	36	11	255	50
20.	Bhandara	165	7	44	75	33	6	165	
21.	Chandrapur	152	10	49	67	26	-	152	
22.	Wardha	116	4	10	49	27	26	116	
23.	Amravati	225	8	35	69	31	19	162	63
24.	Akola	181	12	54	70	32	13	181	
25.	Buldhana	152	5	42	69	25	11	152	
26.	Yeotmal	169	8	52	78	26	5	169	
27.	Sindhudurg	115	4	32	51	24	4	115	
28.	Jalna	75	2	19	37	14	3	75	
Total (Maharashtra)		6082	330	1707	2363	934	372	5706	376

APPENDIX - IV
Statewise Effective Literacy Rates for the Years
1961, 1971 & 1981.

State	1961	1971	1981
1. Andhra Pradesh	25.05	28.52	33.32
2. Assam	33.70	34.60	40.42
3. Bihar	22.24	23.35	27.28
4. Gujrat	36.78	41.84	48.88
5. Harayana	-	31.91	37.28
6. Himachal Pradesh	20.11	37.30	43.57
7. Jammu & Kashmir	13.20	21.71	25.36
8. Karnataka	30.53	36.83	43.02
9. Kerala	55.64	69.75	81.48
10. Madhya Pradesh	20.79	26.37	30.81
11. Maharashtra	35.50	45.77	53.47
12. Manipur	36.85	38.47	44.94
13. Meghalaya	-	35.06	40.96
14. Nagaland	21.37	31.32	36.59
15. Orissa	25.69	30.53	35.67
16. Punjab	29.18	38.69	45.20
17. Rajastan	18.40	22.57	26.37
18. Sikkim	14.82	20.22	23.62
19. Tamil Nadu	36.77	45.40	53.04
20. Tripura	24.66	36.19	42.28
21. Uttar Pradesh	21.13	25.44	29.72
22. West Bengal	35.31	38.86	45.40
India	28.79	34.45	40.24

APPENDIX IV (A)

EFFECTIVE LITERACY RATES OF MAHARASHTRA AND SOME OTHER STATES FOR THE YEARS 1971 & 1981

