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सत्यमेव जयते

GOVERNMENT OF GUJARAT



DRAFT

FIVE YEAR PLAN

1978-83

SECTORAL PROGRAMMES

6. SOCIAL AND COMMUNITY SERVICES

GENERAL EDUCATION

TECHNICAL EDUCATION

GENERAL ADMINISTRATION DEPARTMENT

(PLANNING)

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6.1 GENERAL EDUCATION

6.1.1.1. The role of Education in the State and the national economy needs no emphasis. Provision of educational facilities at all levels of life as an essential Social infrastructure is necessary to supplement the economic infrastructure created through various development plans. The educational system has recorded, over the years, a phenomenal growth. The Education Commission (1964-66) has emphasised the need for radical changes in the system of education. Accordingly, the major steps to be taken to this end have been outlined in the National Policy of Education (1968). The Fifth Plan educational development programmes were imbued with the main ingredients of these documents. The development programmes in the Five Year Plan 1978-83 aim at equalising education opportunities and make education relevant. The main thrust would be in the following three areas:—

- (1) Universalisation of Elementary Education;
- (2) Adult Education; and
- (3) Vocationalisation of Education.

6.1.2 Review of Progress :

6.1.2.1 Facilities of Primary Education in Gujarat expanded considerably during the preceding plan periods. The number of Schools increased from 18,512 in 1960-61 to 22,079 by 1973-74. Similarly the number of pupils enrolled went up from 22.47 lakhs in 1960-61 to 38.87 lakhs in 1973-74. The number of teachers employed rose from 58,800 to 1,07,100. The percentage of trained teachers rose from 48 in 1960-61 to 99 in 1973-74. For effecting qualitative improvement Primary Education Extension Centres were started, in 1965 in every Primary Training College and with a view to improve science teaching 19878 primary schools were provided with Science kits between 1970-77.

6.1.2.2 Adult literacy classes have been functioning in the State for long time. The State Government has also a State level Social Education Committee in 1963 with head quarters at Surat. A number of booklets have been brought out and 2,30,405 persons were imparted training through adult education classes. The percentage of illiterates decreased from 64.85 in 1961 to 58 in 1971.

6.1.2.3 Before 1949 the Secondary Schools were run by the voluntary bodies and financed mostly from non-Governments sources. But from 1949 Governments provides grant-in-aid to the Secondary schools. Considerable progress has been registered in the field of Secondary Education during the Preceding Plans. Almost all the large villages have got the facilities of Secondary Education. The number of schools increased from 1099 in 1960-61 to 2,525 in 1973-74 and enrolment rose from 3.65 lakhs to 8.68 lakhs during the same period. There were 14,208 teachers in 1961 and increased to 32,026 in 1974. The number of trained teachers was increased from 50 per cent in 1960-61 to 85 per cent in 1973-74.

6.1.2.4 A beginning was made in the direction of free Secondary Education in the Second Plan by providing free studentship to economically backward class pupils followed by free Secondary Education for girls. Now the Secondary education is free for all. The school Text book Board was established in 1964 for providing better text books at a reasonable rates. To bring about qualitative improvement the State Institute of Education and the Teachers Education Board were set up in 1969. Syllabus followed in the Secondary Schools was revised in 1970 and *ad hoc* grants were provided for Library improvement, laboratory equipments, provision of audio-visual aids, better service conditions, liberal salary scales, etc. To improve science education a course in general science was introduced in High Schools and 204 science kits were provided to 25 secondary teachers training colleges free of cost by UNICEF.

6.1.2.5 Facilities of Higher Education have expanded considerably during the ten years period 1964-74. The enrolment and the number of Institutions have increased from 93,000 and 193 in 1965-66 to 2,08,000 and 346 in 1973-74 respectively. Higher Education is a field where Government shares the efforts with private societies or trusts.

6.1.2.6 Elementary Education was included in the Minimum Needs Programmes in the Fifth Plan. Enrolment of 97% of the children in the age group 6-11 and 47% in the age group 11-14. The Plan also laid considerable stress on the qualitative improvement in the elementary education. The level of achievement of enrolment reached, at the end of 1977-78 is 97% for age group 6-11 of which the enrolment of boys is 112% and girls 80%. In the age group of 11-14 the enrolment in 1977-78 is 45% of which enrolment of boys is 56% and girls 34%. To ensure and encourage increased attendance in the enrolment Special incentives such as attendance allowance, supply of free text books and clothes were provided to the tribal students under Tribal Area Sub-Plan. To cater to the needs of enrolment 5,535 new teachers were appointed by the end of 1976-77 and 3,165 new posts of teachers were sanctioned in 1977-78 out of which 2,100 teachers were in tribal area.

6.1.2.7 As supplementary measures to adult literacy programme, Farmers' Functional Literacy Programme and Non-Formal Education Programme were undertaken. 98,974 adults were made literate up to the end of 1976-77.

6.1.2.8 417 new Secondary Schools were opened in the Fifth Plan raising the total number of schools to 2,878. However the stress was shifted from expansion of Secondary Education to the qualitative improvement and structural organisation. Under the qualitative improvement programme for Secondary school 32 schools for selective improvement programme and 150 schools for general improvement programme, 302 schools for science Improvement Programme, were covered. Work Experience was introduced in 3302 schools, and under other programmes 70 schools were covered. In order to make text-books available to all students studying in secondary Schools particularly weaker section text-book library in the form of Book Banks have been established the Fifth Plan witnessed an unprecedented expansion in the number of the institutions of Higher Education well as in the number of Students enrolled by them.

6.1.3 Objectives and Strategy:—

6.1.3.1 The following objectives have been envisaged for the Five Year Plan 1978-83.

- (1) Universalisation of Elementary Education by providing free and compulsory education to the children in the age group of 6-14.
- (2) To achieve the level of enrolment of 110 percent in the age group of 6-11 and 85 percent in the age group of 11-14.
- (3) Conversion of single teachers' Schools into double teachers schools.
- (4) Construction of Class-rooms to contain the additional enrolment as well as to provide own school building.
- (5) To provide schools to all the villages which are reported to be without a school within a walking distance of 1.5 K.M.
- (6) To cover 100 per cent being 50 lakhs illiterates in the age group of 15-35.
- (7) To emphasise on the teaching of science education and qualitative improvement of primary, Secondary and higher education.
- (8) Vocationalisation of Higher secondary education to increase the percentage of post-S.S.S.C. students entering vocational stream from 20% to 50%.

6.1.3.2 To achieve the objective in the Five Year Plan 1978-83, in the field of Elementary Education it is proposed to appoint 15,000 additional primary teachers to construct 9,090 class rooms and 515 teachers quarters to open 414 new primary schools and to convert 600 single teachers' schools into double teacher schools. Adult literacy programme is included in the Minimum Needs Programme in the Five Year Plan 1978-83. In addition to the Centrally Sponsored Schemes of non formal Education and Farmers Functionally literacy Programme it is proposed to implement various schemes to cover all the illiterates in the age group 15-35 during the plan 1978-83. It is proposed to cover 1,000 Secondary Schools for improvement of Science Education.

6.1.4A Programme : 1978-83 :

6.1.4A.1 An outlay of Rs. 7258.00 lakhs is proposed for the Five Year Plan 1978-83. A broad break-up of the proposed outlay is as under:—

(Rs. in lakhs)

Sr. No.	Minor Head of Development	Outlay 1978-83.
1	2	3
1.	Elementary Education (M.N.P.)	4328.42
2.	Adult Education (M.N.P.)	499.00
3.	Secondary Education.	1100.00
4.	University and Higher Education.	689.81
5.	Sports, Youth, Welfare.	125.72
6.	Art and Culture.	465.05
7.	Development of Languages.	50.00
Total		7258.00

Elementary Education

6.1.4.2. The revised norm for the Minimum Needs Programme is to cover 100 per cent children in the age group 6-14 by 1977-78 and to achieve 90 per cent coverage by the end of plan 1978-83. At the end of 1977-78 the number of children enrolled in the age group 6-11 (Class-I to V) was 39.71 lakhs, representing 97 per cent of total population of that group of which enrolment of boys was 23.73 lakhs representing 112 per cent and enrolment of girls was 15.98 lakhs representing 80 per cent of the respective population of the said age group.

6.1.4.3. In the age-group 11-14 (Class VI to VIII) the enrolment was 10.51 lakhs, representing 45 percent of the population in the age group of which enrolment of boys was 6.75 lakhs and girls 3.76 lakhs representing 34 percent of the respective population of the age group. Overall enrolment for the entire age-group 6-14 (Class I to VIII) was 50.22 lakhs representing 80 percent of the population of the age group of which enrolment of boys was 95 per cent and girls was 64 per cent as against the All-India average of 68.6 percent and for the age group of which boys was 82.8 per cent and girls was 53.5 per cent. It is evident from the above that the State has reached a higher level of enrolment, than the national average. There will be stagnation in the State if it adheres to the targets recommended for the country. The State therefore proposes to aim at a higher level than envisaged in the All-India Minimum Needs Programme. The projected population on 1st March, 1983 is 41.3 lakhs in the age group 6-11 and 23.7 lakhs in the age group 11-14. Overall population for the entire age group 6-14 is 65.00 lakhs. It is, therefore, envisaged to achieve an enrolment of 110 per cent in the age group 6-11 (Class-I to V) and enrolment of 85 per cent in the age group 11-14 (Class-VI to VIII), representing 101.00 per cent of the entire age group 6-14 (Class I to VIII). The total additional enrolment in the Five Years 1978-83 would therefore be about 15 lakhs representing an average annual additional enrolment of 3.00 lakhs.

6.1.4.4. In view of the additional enrolment in the plan 1978-83, it is envisaged to appoint 15,000 additional teachers as against 21,000 teachers required to cover the additional enrolment of

8.47 lakhs on the basis of student-teacher ratio of 40:1. The remaining additional enrolment is proposed to be absorbed in the existing class-rooms and system.

6.1.4.5. Out of the 22,870 primary schools 4,593 schools are working in rented buildings and as against 87,000 teachers there are 69,000 class rooms. It is therefore proposed to construct 9,0,080 additional class rooms.

6.1.4.6. Suitable residential accommodation is not available in rural and tribal areas especially for Scheduled Castes and Scheduled Tribes teachers as also for lady teachers. It is proposed to construct 515 teachers quarters in the tribal areas.

6.1.4.7. It is reported that there are 435 such villages having no schools. It is proposed to open 398 New Schools in the Plan 1978-83 out of which 210 will be in the tribal areas.

6.1.4.8. There are 7,189 single teacher schools in the State, out of these 5,227 schools are having standard I to IV or more and the remaining schools are having standard I to III only. It is envisaged to appoint 600 additional teachers including 200 in the tribal areas for conversion of single teachers.

6.1.4.9. It is also envisaged to provide incentives in the form of attendance allowance to 5,6,600 primitive families and around 21.50 lakh free-text-books and 9.09 lakh units of uniforms to tribal students so as to ensure attendance and increase in the enrolment. Provision proposed to be made also for grant of Rs. 1000 per school to 4120 Schools for innovative programmes of qualitative improvement to raise educational standards: non-formal education to 2.18 lakhs children in the age Group 9-14 for multiple entry to eliminate stagnation, drop outs etc; additional inspection staff of 200 trained graduates (Nirikshaks) to look after the enrolment campaigns. It is also proposed to provide for one month enrichment courses for primary teachers who have served at least for five years and who are below 50 years of age. It is envisaged that nearly 10,40,668 teachers will be trained during the period 1978-83.

6.1.4.10. **Adult Education.**—According to 1971 census nearly 41.75 lakhs of adults in the age group 15-35 are illiterates. Taking into consideration the normal increase the projected estimate of illiterates is 50 lakhs. The Government of India has fixed a target of 100 per cent coverage by 1988 and 66 per cent by 1983. Gujarat however, intends to cover 100% by 1983. This is proposed to be achieved through implementation of various schemes under the State Plan with the help of Voluntary National Adult Education Programme, Centrally Sponsored Scheme like Farmers functional literacy programme and Non-Formal Education Programme and the Programme on Adult Education initiated by the University Grants Commission. The cost per illiterate adult is estimated at Rs. 60 to Rs. 65 (approx.) and would require an outlay of Rs. 30.00 Crores. An outlay of around Rs. 5.00 Crores is proposed in the State Plan 1978-83 and the remaining Rs. 25.00 Crores is expected to be available from the other services.

6.1.5. Secondary Education:

6.1.5.1. The emphasis will be on the rationalisation and consolidation of existing Schools. With a view to remove regional imbalances and to have the regulated growths of Secondary Schools it is proposed to provide special financial assistance to encourage the opening of new schools in selected backward areas. A programme of improvement of science Education by way of providing separate laboratories one for each discipline of Physics, chemistry and Biology in a school unit of 40 students is proposed. Socially useful productive work and community service have been considered as an integral part of the Secondary Education. This programme was introduced in 302 Schools in the Fifth Plan. It is proposed to introduce this programme in 1360 Schools in the Plan 1978-83.

6.1.6. Vocational Education :

6.1.6.1. For conducting of District Vocational survey it is proposed to set up 18 district vocational organisations. It is envisaged that 50% of the students seeking admissions in the post-S.S.C. Classes should be in vocational and professional courses. It is therefore proposed to encourage boys and girls in the age group 14-18 to follow vocational and technical courses by improving the facilities in the existing institutions and by strengthening of 20 multipurpose schools. It is also proposed to start selected ITI Type trade certificate courses of 1 or 2 years duration with a total intake of 400 students and agricultural based certificate courses of short duration with total intake of 800 students.

6.1.7. Higher Education.

6.1.7.1. The main emphasis will be on qualitative improvement. Provision is made to provide matching assistance to Universities so as to enable them to avail of the matching assistance from the U.G.C. towards their development schemes. Provision is also made for matching assistance to 2 colleges in each district so as to enable them to avail of the matching assistance from the U.G.C. towards various schemes. It is also proposed to assist the Colleges and Universities under the Faculty Development Programme. The Colleges and Universities will be invited to forward their faculty development programme keeping in view the special needs and conditions of the State in addition to U.G.C. schemes for cent percent assistance.

6.1.7.2. It is proposed to provide special coaching to the students belonging to SCs., etc., so as to prepare them to compete along with the other students. It is also proposed to set up Gujarat Council of studies for Social, Cultural and Scientific Advancement.

6.1.8. Development of Public Libraries :

6.1.8.1. It is proposed to construct 5 district libraries in Non-tribal area, and 6 taluka libraries in tribal area. Enhanced grant-in-aid is proposed for 5,200 village libraries. About 1250 village libraries are proposed to be opened. Of these, 250 will be opened in the tribal areas.

6.1.9. Other Programmes.

6.1.9.1. **Sports and Youth Welfare.**—It is proposed to step up the Sports activities in the plan 1978-83. A good sports complex is coming up covering an area of 64 acres at Gandhinagar. Provision is made for a hostel for 375 inmates at Gandhinagar and sub-coaching centres in almost all the Districts. A good foundation has been laid to co-ordinate the activities of youth organisations spread over the State.

6.1.9.2. The Sangeet Nrity Natya Kala Acadmi and the Lalit Kala Akadami were constituted in 1961 and have been mainly responsible for the spread and development of Cultural and Propagation Arts activities. It is proposed to provide basic amenities for propagation and development of performance arts and plastic arts.

6.1.9.3. **Development of Archaeology.**—It is proposed to explore the exploration and excavation activity. Provision is also made for preservation bringing the publications, construction of quarters and strengthening of administrative machinery.

6.1.9.4. **Development of Archives.**—A separate Department of Archives was set up in 1971. It serves as an instrument of public administration and as historical source materials for research and

seeks to preserve the cultural heritage for postirity. The main infrastructure of this programme is a scientifically designed building for housing the archives. Out of an outlay of Rs. 67 lakhs, an outlay of Rs. 55 lakhs is proposed for buildings and other equipments.

6.1.9.5. Development of Languages.—An outlay of Rs. 50 lakhs is proposed for this programme. Out of this, an outlay of Rs. 20 lakhs is proposed for Gujarati Language and its literature. A new scheme for the development of Sindhi, Urdu, and other modern language, has been introduced from the year 1978-79. An outlay of Rs. 30 lakhs is proposed for this new scheme.

Selected Targets and Achievements
(Places indicate cumulative totals for each year)

Sr. No. 1	Item 2	Unit 3	5th Plan 4	1974-78 achievement 5	1978-79 Target 6	1978-83 proposed Target 7
Education						
<i>A. Elementary Education</i>						
Classes-I. V. (age group 6-11)						
1.	Enrolment	(000)				
(a)	Boys .. .. .	.. .. .	2599	2373	2418	2340
(b)	Girls .. .. .	.. .. .	1788	1598	1661	2200
(c)	Total .. .. .	.. .. .	4387	3971	4129	4540
2.	%age of age group					
(a)	Boys .. .. .	.. .. .	115.00	115.00	115.00	110.00
(b)	Girls .. .. .	.. .. .	85.00	82.00	85.00	110.00
(c)	Total .. .. .	.. .. .	102.00	99.00	102.00	110.00
Classes VI-VIII (age group 11-14)						
1.	Enrolment	(000)				
(a)	Boys .. .. .	.. .. .	814	675	690	1120
(b)	Girls .. .. .	.. .. .	470	376	430	920
(c)	Total .. .. .	.. .. .	1284	1051	1120	2040
2.	%age of age group					
(a)	Boys .. .. .	.. .. .	65.00	56.00	65.00	91.02
(b)	Girls .. .. .	.. .. .	40.00	34.00	38.00	80.00
(c)	Total .. .. .	.. .. .	53.00	45.00	53.00	85.00
<i>B. Secondary Education</i>						
Classes IX-X (Age group 14-15)						
1.	Enrolment	(000)				
(a)	Boys .. .. .	.. .. .	49	299	320	404
(b)	Girls .. .. .	.. .. .	19	134	148	204
(c)	Total .. .. .	.. .. .	68	433	468	608
2.	%age of age group					
(a)	Boys .. .. .	.. .. .	40.00	39.70	42.07	50.63
(b)	Girls .. .. .	.. .. .	19.20	19.15	20.83	27.06
(c)	Total .. .. .	.. .. .	30.00	29.84	31.95	39.18
<i>Classes XI-XII enrolment in general education</i>						
(a)	Boys .. .. .	.. .. .	..	94	121	229
(b)	Girls .. .. .	.. .. .	..	41	44	56
(c)	Total .. .. .	.. .. .	..	135	165	285
Enrolment in Vocational courses						
(a)	Post elementary stage	Nos.	Not available			
(b)	Post High School stage	Nos.	Not available			

Sr. No.	Item	Unit	5th Plan	1974-78 achievement	1978-79 Target	1978-83 3 proposed Target t
1	2	3	4	5	6	7
Element in Part-time contribution courses						
		Nos.				
1.	Age Group (6-11 ) ..	..			
2.	" (11-14 ) ..	..	Not available			
3.	" (14-16 ) ..	..			
4.	" (16-18 ) ..	..			
	Total ..	..			
Teachers	A. Pry. Schools ..	}	118821	115821	118821	130821
	B. Middle Schools ..					
	C. High/Higher Secy. Schools ..		41000	38891	43891	52851
Adult Education - No. of Participants						
		No. in lakhs				
(a)	15-25 Years	..	0.86	2.15	4.37	50.00
(b)	Over 25 Years	}				
(c)	Total					
Libraries						
1.	District Libraries ..	..	..	18	18	24
2.	Block Libraries ..	..	..	12	16	28
3.	Village Libraries ..	..	..	450	550	450
4.	Public Libraries ..	..	..	6	6	6
University Education (Excluding Correspondence courses)						
1.	Enrolment	(000)				
(a)	Pre degree level	..	..	..	..	..
(b)	First degree level	..	152	141	152	155
(c)	Post Graduate Level	..	12	11.57	12	14.188

6.2. TECHNICAL EDUCATION

6.2.1.1. The development of Technical Education has to be linked with factors such as the growth of industries, newly emerging technological processes and likely to demand for technical manpower in future. Technical Education is one of the important inputs for further growth of the economy.

6.2. Review of Progress.

6.2.2.1 Gujarat has developed good technical facilities by now. By the end of the Fourth Five Year Plan, the State had 7 Engineering Colleges with an intake capacity of 1790 seats for Degree Courses and 19 Poly-technics with an intake capacity of 3255 seats for Diploma Courses. There are also 44 technical high schools which give technical background to the Secondary School Students. This expansion had taken place mainly during the period of the Third Plan and the three Annual Plan period. During the Fourth Plan attention was concentrated mainly on consolidation and quality improvement by way of curricula revision, faculty improvement programmes and diversification of courses. This approach was generally continued in the Fifth Plan also.

6.2.2.2. During the Fifth Plan (1974-78), a degree course in Chemical Engineering has been started from June, 1974 with an intake capacity of 30 seats and a degree course in Textile Technology with an intake capacity of 20 seats from June, 1977. A part-time degree course in Electronics and Communication Engineering has also been started from June 1976 with an intake of 15 by adjustment.

6.2.2.3. The following new diversified diploma courses have been started by way of adjustment of seats :

(i) Automobile Engineering with an intake capacity of 30 at Ahmedabad from June, 1974.

(ii) Plastic Engineering with an intake of 30 at Ahmedabad from June, 1975.

two separate wing for girls have been established at the following Centres during 1974-75 :

		<i>Intake.</i>
(i) A. V. Parekh Technical Institute Rajkot.	(i) Radio Technology.	15
	(ii) Secretarial Practice	15
	(iii) Garment Marking :	15
(ii) T.F. Gandhidham Poly-technic, Adipur	(i) Garment Making.	15
	(ii) Home Science	15

6.2.2.4. Under the programme of Vocationalisation, the following certificate courses have been started at the Poly-technics from July, 1976.

Nature of Course.	Duration	Intake Capacity	Name of Institution.
1	2	3	4
(i) Maintenance Technician	2 Years	20	Sr. Bhavsinhji Poly-technic Institute, Bhavnagar.
		20	Dr. S. and S. S. Gandhi College, Surat.

1	2	3	4	5
(2)	Production Technician	2 Years	20	Sir Bhavsinhji Poly-technic Institute, Bhavnagar.
			20	Dr. S. and S.S. Gandhi College, Surat.
(3)	Electrical Service Technician	2 Years	20	A. V. Parekh Technical Institute, Rajkot.
			20	K. D. Poly-technic patan
(4)	Television Servicing Technician	1 years	20	A. V. Parekh Technical Institute, Rajkot.
(5)	Horology Technician	2 years	20	L. E. College, Morbi.
		Total	160	

6.2.3. Objectives :

6.2.3.1. The broad objectives of the Technical Education Plan are :

(1) To improve quality of education and to start diversified courses to meet the needs of industries and to revise course content-co-ordinating industrial training within its span.

(2) To train teachers in industrial and academic fields and to make industrial training compulsory for them. To start doctoral training programmes for strengthening post-graduate Education and research.

(3) To develop engineering subjects like petro-chemicals, marine engineering, textile technology, Bio-medical engineering, Horology, rural engineering, Polymer technology, new sources of energy taking into consideration the requirement of technical personnel for irrigation projects like the Narmada Project, Power projects etc.

(4) To develop special Engineering disciplines for farm products, rural electrification and rural industries.

(5) To take steps to ensure that students get easy approach to industrial training so as to increase their employment opportunities after receiving technical education.

(6) To promote intensive study in Post-graduate Education and research.

(7) To Provide technical education facilities to girls leading to gainful employment.

(8) To provide opportunities for vocational education-vocationalisation.

6.2.3.2. Considerable importance will be attached also to Micro Planning at Institute or Unit level. This will be aimed at introducing new courses, diversification of courses with need based specialisation, improvement and modernisation of equipment and library facilities, optimum utilisation of available resources, developing links with industrial enterprises in the neighbourhood, provision of facilities and amenities for students and developing extra-curricular activities Community Services and Youth Service programme etc.

6.2.4. Outlays

6.2.4.1. An outlay of Rs. 1200 lakhs is proposed for the Five Year Plan 1978-83 as against the expenditure of Rs. 184.66 lakhs during the Fifth Plan (1974-78). A broad break-up of the proposed outlay is given below.

<i>Programme</i>	Rs. in lakhs.
	<i>Outlay (1978-83)</i>
(1) Direction and Administration.	10.00
(2) Engineering Colleges, Institutes and Assistance to non-Government Technical Colleges/ Institutes.	294.50
(3) Poly-technic (including Girls poly-technic, quality improvement diversification of courses, New Post-Graduates Diploma Courses and New Poly-technics).	396.00
(4) Technical Schools (Vocationalisation and Programmes in Tribal Areas.).	215.00
(5) Scholarships.	7.00
(6) Research and Training.	15.00
(7) Other Expenditure (Such as student amenities, construction of staff quarters, hostels etc.).	262.50
Total	<u>1200.00</u>

6.2.5. Outline of the Programmes 1973-83 :

6.2.5.1. In drawing up the programme the need for technically qualified persons for new requirements has been taken into consideration such as the Narmada Project, Industrial development in fertilizers, chemicals, cement, mineral, power plants and the ship building project etc. The new demands would be met in the existing institutions by adjustment of intake in various disciplines as also by augmenting the admission capacity to the extent necessary.

Expansion and Development of Courses.

6.2.5.2. At present there are 7 Engineering Colleges-2 Government and 4 Non-Government and 1 regional college with total intake capacity of 1840. There are 19 Poly-technics-13 Government 4 Non-Government and 2 Girls Poly-technics with total intake capacity of 3255. As many as 39 different courses are being conducted in the Poly-technics.

6.2.5.3. It is necessary to identify and introduce new courses in selected institutions to meet the demand of new industrial and technological development and of the new projects. Provisions is proposed for physical facilities needed for starting of new courses. The new courses will be planned after carrying out the necessary surveyed and studies. Consultancy services will also be developed. It is also proposed to develop in engineering colleges the testing facilities for various organisations and institutions.

6.2.5.4. Provision is proposed for implementation of the various recommendations of the All India Council of Technical Education in respect of improvement of library facilities strengthening of book service centres, provision of modernisation of equipment, additional provision for cost of raw materials, provision for training and placement cell and other programmes of quality improvement including industrial training for students. The emphasis will centre on qualitative improvement of both degree and diploma education.

6.2.5.5. Rural development is another area which will receive attention it is proposed to develop 2 Poly-technics in the State as 'Community Poly-technics'.

With a view to bring the facilities of courses suitable for girls nearer home it is proposed to start girls' wing in 4 more centres.

Provision is also proposed for payment of grant-in-aid to Non-Government Engineering colleges and Non-Government Poly-technics and similar technical institutions in the State.

6.2.5.6. Now, new Poly-technics has been established in the State during the Fourth and Fifth Plans. There have been persistent demand for starting new Poly-technics specially from the district which have no Poly-technics and where there is fairly good industrial base. The new industrial policy and the approach adopted in favour of labour-intensive technology will raise the demand for technicians. It is therefore envisaged to establish 2 new Poly-technics during the Plan. The courses to be started will be need-based and those disciplines where the specific demand for non-power has been established. The locations will be considered having regard to nearness of industrial complexes.

6.2.5.7. With the introduction of 10+2 system of education, there is a saving of one year both at the Diploma and Degree level. Diploma courses are now of 3 years duration after Xth standard and Degree courses are of 4 years duration after 10+2. This saving of 1 year will be of advantage. It is therefore proposed to introduce 1 year post-diploma courses in the subjects/areas of felt needs of industries.

Quality Improvement.

6.2.5.8. The emphasis on improvement of quality of technical education will continue. This is provided in the various programmes in the plan. Suitable provisions is proposed and for facility improvement programme which is very important. The existing faculty improvement programmes in respect of practical training of teachers industry, deputation of post-graduate and doctoral programmes, short-term courses and deputation to T. T. I. for Poly-technic-teachers would be continued. It is necessary to frame curriculum design procedure taking in to consideration the possibilities of allowing Poly-technic to enter into co-operative programmes with industry or to permit some flexibility in the courses to meet even small job requirement improvement in teaching and learning process will require organised support of service, change in norms, re-organisation of class room facilities and investment in demonstrations, equipments and aids.

Development of Technical High School and Vocationalisation.

6.2.5.9. The Education Commission has stressed that 50% of students beyond class Xth should be in vocational and professional courses. The vocationalisation programme in the State is implemented by providing training in institutions like Technical High Schools, Poly-technics, Industrial Training Institute, Teacher's Training Institutes, Agriculture Schools, and Health Visitors and Nursing Schools etc.

6.2.5.10. A reference has been made earlier to the starting of 5 certificate courses at the Polytechnic during 1976-77 with intake capacity of 160. The programme for vocational education is proposed to be continued on priority basis during the period of Five Year Plan 1978-83. It will be necessary to make full use of almost all available infra-structural facilities such as the technical schools and other institutions under the various departments. The programme will be implemented on the pattern of industrial training institutes.

6.2.5.11. In view of the emphasis on rural development, the demand for skilled artisans and lower grade technicians is expected to increase in rural areas. It is therefore proposed to provide training facilities for rural youths in useful vocations. Vocational courses should be developed in rural areas and courses on appropriate technology based on local available materials and traditional skills should be introduced for the development of rural youths. It is proposed 1266 additional seats in technical high schools and poly-technics by providing physical facilities of buildings equipment and staff during the Plan 1978-83.

Continuing Education.

6.2.5.12. Due to the rapid technological development, programme of trained manpower for specific tasks has acquired new dimensions. This calls for continuing education. More opportunities need to be provided for upgrading the skills and knowledge of the persons working in different industries at various levels through continuing education and non-formal/adult education. It is therefore proposed to organise lectures, part-time courses, correspondence courses, preparatory courses etc. either in the evening or on time release basis for workers engaged in industry. Such facilities are proposed to be provided in selected technical institutions located near industrial complexes.

Students amenities and other programmes.

6.2.5.13. It is envisaged to give due priority to students amenities. It is also proposed to provide more staff quarters, and hostels facilities where badly needed, strengthening the administrative of Technical Education Department and Technical Examination Board and to improve Examination System and grading. It is also necessary to implement the staff structure as recommended by the Madan Committee.

6.2.6. Centrally Sponsored Schemes :

6.2.6.1. A provision of Rs. 50 lakhs is proposed for the fully Centrally Sponsored Schemes of post-graduate courses in Engineering Colleges. A provision of Rs. 9.50 lakhs is proposed also for the partly Centrally Sponsored Scheme of introduction of post-graduate diploma courses of .L. D. Engineering College. A matching provisions of Rs. 9.50 lakhs is included in the State Plan for this scheme. It is proposed to introduce 40 seats in 4 post-graduate diploma courses in water resources engineering, industrial structures in production engineering and/in communication engineering.

6.2.7. Main Targets :

6.2.7.1. The main targets of the proposed programmes are briefly indicated below.

(a) To introduce additional 5 post-graduate degree courses with 50 admission capacity and 4 post-graduate courses with 40 admission capacity in the Engineering Colleges.

(b) To introduce 60 additional seats at under graduate level thereby raising the present number of from 1840 to 1900 in the Engineering Colleges.

(c) To establish 2 additional poly-technics and to introduce 485 additional seats at diploma education level, thereby raising the present number of seats from 3255 to 3740.

- (d) To develop 2 poly-technics as community poly-technics.
- (e) To introduce 1266 additional seats at certificate level under the vocationalisation programme.
- (f) To implement other programmes such as faculty development, improvement of libraries, modernisation of equipments, students amenities, staff quarters etc.

6.2.8. Tribal Area Sub-Plan.

6.2.8.1. Within the total outlay of Rs. 1200 lakhs in the State Plan 1978-83 for Technical Education, an outlay of Rs. 35 lakhs is proposed for the Tribal Area sub-Plan.

14% seats are reserved for Tribal students in Engineering colleges and poly-technics.

During the Fifth Plan 3 trade Certificate Courses in Electrician, General Mechanic and Turner with 20 seats each has been introduced at Weir Industrial Institute, Dharampur (District Valsad) which is situated in the heart of the tribal area. It is also proposed to provide hostel facilities for 100 students at Dharampur so that the tribal students from nearby places can take full advantage of other courses such as Fitter, Carpentry, Tailoring conducted at the said institute.

It is also proposed to pay grant-in-aid to voluntary agencies in tribal areas for organising vocational courses which may be useful for gainful employment.

STATEMENT

Selected Targets and achievements.

Sr. No.	Item	Unit	Position 1977-78	1978-79	Phasing of targets.			
				Approved Targets	1979-80	1980-81	1981-82	1982-83
1	2	3	4	5	6	7	8	9
Technical Education								
(Annual Intake).								
(A)	Diploma Courses	Nos.	3255	3385	3485	3600	3710	3740
(B)	Degree Courses	Nos.	1840	1840	1840	1870	1900	1900

STATEMENT GN-5.

Draft Plan : 1978-83.

Centrally sponsored Schemes - Outlays and Expenditure

(Rs. in lakhs)

Name of Schemes	Fifth Plan outlay (1974-79)	1974-78 Actual Expenditure	1978-79 Approved outlay	1978-83 Proposed outlay.
1	2	3	4	5
Central				
<i>Sector-Schemes</i>				
(a) Fully Centrally Sponsored Schemes.				
P. G. Coursed in Engineering at L. D. College of Engineering, Ahmedabad.	21.25	14.72	4.25	50.00
(b) Partly centrally sponsored scemes.				
Post-graduate diploma courses.	9.50
Total				59.50

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