



DEPARTMENT OF EDUCATION

HIGHER SECONDARY EDUCATION  
IN TAMIL NADU

MARCH - 1979

GOVERNMENT OF TAMIL NADU  
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## HIGHER SECONDARY EDUCATION IN TAMIL NADU.

### 1. GENESIS OF THE NEW SCHEME

#### 1.1. OBJECTIVE:

The 10+2+3 Pattern of Education introduced in Tamil Nadu from July 1978 onwards is the natural outcome of the State Government's eagerness and sustained efforts to bring about a major change in Education with a view to fulfilling the needs and aspirations of the people, particularly the rural population and the weaker sections of society. This change-over was not a sudden decision. Careful thinking for a long time has gone into this aspect as detailed below.

#### 1.2. BACKGROUND:

Such a change was contemplated as early as in 1917, when the Sadler Commission recommended that 'the dividing line between University and School Education could be more precisely drawn at the Intermediate stage than at Matriculation'. Subsequently various national level committees and commissions made the following recommendations:—

Year.	Name of the Committee or Commission.	Recommendation.
1929	Hartog Committee ..	Diversification of pupils to industrial and commercial careers at the end of the middle stage.
1934	Sapru Committee ..	Diversified courses at the secondary stage, one for entering the University and the other for meeting the vocational needs.
1944	Sargent Report ..	Two types of Secondary Education, namely, academic and technical

Year.	Name of the Committee or Commission.	Recommendation.
1952-53	The Secondary Education Commission (Dr. A. L. Mudaliar Commission).	..Diversification of School curricula and the establishment of Higher Secondary Course.
1962	Dr. Sampurnanand Committee.	..Uniform structure of Education all over India for emotional integration.
1964-66	Kothari Commission	..10+2+3 Pattern (recommended after deep analysis)
1973	National Committee on Educational Structure and Pattern.	..Uniformity of Pattern of Education and introduction of diversification at the Higher Secondary Stage.

### 1.3. HIGH POWER COMMITTEE:

Prompted by a thirst for reform in consonance with the recommendations listed above, the Government of Tamil Nadu appointed a High Power Committee in 1975 with the then Education Secretary as Chairman and the present Director of School Education as Member-Secretary and the Vice Chancellors of the Universities in Tamil Nadu and other eminent educationists and Members of Legislature as members.

### 1.4. RECOMMENDATIONS.

After studying the 10+2+3 pattern in all its aspects the High Power Committee recommended its adoption in Tamil Nadu in view of its manifold advantages, of which the following are the most significant.

### 1.5. ADVANTAGES:

1. Diversion of students to different walks of life at an early stage.

2. Development of self-confidence and a sense of dignity of labour in the pupils from the High School stage itself.

3. Reduction of unemployment, particularly in the rural areas by opening institutions of higher learning there.

4. All-round improvement of standards from the beginning.

5. Better student maturity for Higher Education as at plus 2stage it was felt they may not be mature enough for college education.

6. The longer duration of the plus two stage than the too short Pre-University Course, which has proved just a "baby-sitter" course for students.

7. Availability of Higher Secondary Education within a short distance from villages.

8. Plus two stage handled by teachers trained in psychology of teaching.

#### 1.6. ADOPTION :

The Government of Tamil Nadu accepted the recommendation of the High Power Committee and decided to implement the 10+ 2 + 3 pattern from June 1978 onwards and placed Higher Secondary Education under the control of the Director of School Education.

#### 1.6. (a) INTAKE OF STUDENTS :

The intake of students in the Higher Secondary Course (First year) is more than the intake in the Pre-University Course this year as may be seen from the following figures :—

Total intake in Higher Secondary:					
Academic	..	..	..	..	89,600
Vocational	..	..	..	..	24,400
					<hr/>
			Total	..	1,14,000
					<hr/>
			Total intake in the Pre-University Course	..	78,000
					<hr/>

Thus the total strength in the first year Higher Secondary is 36,000 more than that in the Pre-University Course.

### 1.7. COMMENDATION :

Hon'ble Dr. P. C. Chunder, who was impressed by the way in which Tamil Nadu is implementing this scheme, said :

“What Tamil Nadu does today the other States will have to do tomorrow.”

## 2. SALIENT STEPS TO IMPLEMENT THE NEW PATTERN.

### 2.1. NEW TEN-YEAR SYLLABI :

A lot of spade work has been done to usher in the 10 + 2+3 Pattern. In fact the preparation started even in 1972, when the new enriched and updated ten-year syllabi were adopted and introduced by stages before the introduction of the Higher Secondary or plus two course.

### 2.2. BOARD OF HIGHER SECONDARY EDUCATION :

A Board of Higher Secondary Education was constituted in 1976, with the Director of School Education as Chairman and other important officials, non-officials and representatives of various interests connected with Education, like Universities, etc., as members to advise the Director of School Education in all matters connected with Higher Secondary Education.

### 2.3. STEERING COMMITTEE :

In order to give the necessary direction and guidance in the implementation of the new scheme, a high level Steering Committee was also constituted in 1976 with the Commissioner and Secretary to Government, Education Department as Chairman and the Director of School Education as Member-Secretary. The Finance Secretary, the Director of Government Examinations, the Director of Collegiate Education, the Director of Technical Education and the Managing Director, Tamil Nadu Text Book Society are the other members of the Committee. All major steps in the implementation of the scheme are taken only in consultation at every stage with this Committee which acts as a clearing house for Higher Secondary Education issues.

### 2.4. ACADEMIC SURVEY :

The Departmental staff toured the districts and made a map survey of the existing facilities in schools, colleges, polytechnics, etc., in accordance with the guidelines of the steering committee, to decide and plan the location of Higher Secondary schools.

## 2.5. VOCATIONAL SURVEY :

In collaboration with the Central Ministry of Education and the National Council of Educational Research and Training, New Delhi, a vocational survey was also conducted to collect necessary data regarding the existing vocations, the emerging vocations and the opportunities for the employment of middle level staff in such vocations. These statistics, carefully gathered with the assistance of the Government Departments of Industries, Labour, Agriculture and Employment as well as industrial and business establishments, have proved very vital in organising the vocational stream of Higher Secondary Education, and also in pinpointing the felt needs of the locality. This is the first major exercise made by the Department of Education to consult the employees and parents in the locality to achieve significant dovetailing of educational activity with local needs and aspirations.

## 2.6. COMPARING NOTES WITH OTHER STATES :

Care was taken to study the implementation of the new pattern in the other States also before its actual implementation in Tamil Nadu with the object of avoiding pitfalls and snags and establishing the edifice of Higher Secondary Education on a firm foundation. The Hon'ble Minister for Education, the Director of School Education and the other planners visited the neighbouring States to make a first-hand study.

## 2.7. SELECTION OF SCHOOLS :

2.7.1. The main consideration that weighed with the Government in their firm decision to locate the plus two stage in schools was the need to extend the benefit of Higher Secondary Education to every nook and corner of the State and to all sections of society, especially to the usually neglected rural population and weaker sections. This again is the first serious step taken to correct urban imbalance in Educational provision.

2.7.2. The schools were selected with great care for upgrading on the basis of the recommendations of the local officers keeping in view the guidelines of the Steering Committee. Apart from the suitability of the schools, the criterion was that there should be at least one Higher Secondary School for each Panchayat Union Block in rural areas and for each municipality in urban areas. However, there are 47 Panchayat Union Blocks not yet provided with Higher

Secondary Schools, because of the poor strength and accommodation there, though 33 such unions are served by Higher Secondary Schools in the neighbouring municipalities. It is hoped to achieve our goal of at least one Higher Secondary School in every union in the coming years. The distribution of schools according to managements and types is as follows :

MANAGEMENT	TYPE OF SCHOOL				
	<i>S.S.L.C. O.S.L.C. Anglo-Indian. Matric. Total.</i>				
<b>Government :</b>					
Education Department	408				408
Director of Backward Classes	1				1
Director of Harijan and Tirbal Welfare	4				4
<b>Local Body :</b>					
Corporations	17				17
Municipalities	34				34
Private Aided Schools	405	1	24	18	448
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
	869	1	24	18	912
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>

The number of schools offering different courses is as follows :—

General academic Education alone :	202
Vocational Education alone :	1
Both-General and Vocational Education	709
	<hr/>
Total :	912
	<hr/>

### 3. COURSES OF STUDY, SYLLABI, TEXT BOOKS AND MEDIUM OF INSTRUCTION.

#### 3.1. TWO STREAMS :

Higher Secondary Education in Tamil Nadu has been evolved as two streams, viz., the general and the vocational, to meet the needs of different sections of students.



### 3.2. THREE PARTS :

3.2.1. The course of study comprises three parts with wide options. The student can study *any one* of the following 13 languages under Part I.

1. Tamil
2. Hindi
3. Kannada
4. Telugu
5. Malayalam
6. Urdu
7. Gujarathi
8. Sanskrit
9. Arabic
10. Persian
11. French
12. Latin
13. German

English is compulsory under Part II.

3.2.2. *Any four* of the following 21 subjects may be chosen under Part III of the general course :

1. Mathematics
2. Physics
3. Chemistry
4. Biology (Botany and Zoology)
5. Botany
6. Zoology
7. Home Science
8. History
9. Geography
10. Economics
11. Political Science (Modern constitution and Civics).
12. Sociology
13. Commerce
14. Accountancy
15. Logic and Scientific Method
16. Psychology
17. Philosophy

18. Any one of the 14 languages mentioned under Parts I and II, (German may be taken under Part I or under Part III but not under both)

19. Fine Arts : Any one of the following :—

- (a) Drawing and Painting
- (b) Indian Music
- (c) Western Music

20. Ethics and Indian Culture

21. Environmental studies.

The actual combinations offered in individual schools will, however, be subject to the two controlling factors of need and feasibility.

3.2.3. There has been a feeling and consequent criticism from certain quarters that four subjects under Part III will be too heavy a load for students at this stage. But the Board of Higher Secondary Education, which examined this question recently in the light of the considered opinion of the associations of Headmasters, throughout Tamil Nadu came to the conclusion that the study of four subjects will not be a strain on the students inasmuch as it is spread over two years and the advantages of such a choice will far outweigh the suggestion to reduce the existing load. However, the possibilities of reducing the load without sacrificing the quality and standard are being explored by experts and necessary steps will be taken on their suggestions to prune any difficult areas, without of course, reducing the number of subjects. The operative guideline here is that Tamil Nadu standard should be in keeping with all India standards.

3.2.4. A student opting for the vocational course has to choose under Part III one of the 52 vocational subjects identified in 6 major occupational areas and also one related subject from the 21 listed on 3.2.2. above. The list of vocational subjects is furnished in Annexure.

### 3.3. ENRICHED AND UPDATED SYLLABI :

3.3.1. The syllabi for the various languages and subjects of the Higher Secondary Course were constructed by expert committees consisting of University and College Professors, Headmasters, Teachers and other experts in the respective fields. The Chairmen of the Boards of Studies of Madras, Madurai Kamaraj and Annamalai

Universities in different disciplines were also consulted often in addition to the representatives of universities serving as ex-officio members of the respective syllabus committees. While framing the syllabi, the guidelines given by the National Council of Educational Research and Training, New Delhi, and the Central Board of Secondary Education through their syllabi, the syllabus of the Pre-University courses and the first year degree courses and the syllabi of neighbouring States were consulted and their salient features were incorporated in the Higher Secondary syllabi with necessary adaptations. Before the finalisation of the syllabi the comments of experts, teachers and parents were invited, obtained and duly considered. Thus constant care was taken to ensure that the Tamil Nadu Higher Secondary syllabi provided smooth and proper linkage between the syllabi of the high school and the degree courses at the same time providing acceptable standards.

3.3.2. The significant feature of the syllabus is that 25 per cent of the time is given to the study of two compulsory languages and the balance of 75 per cent is earmarked for specialisation in the subjects.

3.3.3. The prescription of common syllabi for the Higher Secondary course located in all types of schools, viz., S.S.L.C., O.S.L.C., Anglo-Indian and Matriculation Schools, totally removes at the plus two stage the artificial barriers in curricula that still exist among these schools at the lower stages. This is a salient step to remove imbalances at various levels at least at the plus two stage. The Anglo-Indian schools have also adopted the June-May pattern of school year for uniformity. Thus for the first time all students coming out of S.S.L.C., O.S.L.C., Matriculation and Anglo-Indian schools will come under the same curricula and syllabi and examination at the school extension stage which is the plus two stage.

#### 3.4. PRODUCTION OF TEXT BOOKS :

3.4.1. Nationalised Text Books have been produced by the Tamil Nadu Text Book Society for the main languages and subjects of the Higher Secondary course with the object of ensuring uniformity and keeping the cost at the lowest possible level to serve the needs of the pupils. For the languages and subjects for which it would be difficult and uneconomical to produce nationalised text books, suitable publications of standard private publishers have been prescribed by Expert Committees.

3.4.2. The production, selection and review of text books were done by top level expert committees constituted for the purpose under the guidance of the Steering Committee.

3.4.3. Though the overall picture of the production and supply of text books for the first year has been satisfactory there have been a few complaints of delays also. The Government would like to assure the public that really effective steps are being taken to avoid delay in the arrangements this year. It is also proposed to route the supply through school co-operatives so that the profits, if any might be shared by the schools.

3.4.4. A few controversial details have been pointed out in the nationalised text book in history for the first year Higher Secondary course. Steps have already been taken to delete these and substitute correct details approved by experts in the field. Extra care will be taken to avoid such controversies in future.

### 3.5. MEDIUM OF INSTRUCTION :

3.5.1. The medium of instruction for the Higher Secondary course will be Tamil or the mother tongue of the linguistic minorities or English. No tuition fee will be collected from those who study in the medium of their mother tongue.

3.5.2. Students who belong to linguistic minorities and study in the medium of their mother tongue up to the X Standard may choose English as the medium of instruction at the Higher Secondary stage if their respective medium is not available. No tuition fee will be collected from such students also eventhough they study in the English medium. Special attention is also paid to the provision of education in the minority language media at the Higher Secondary stage to the extent possible.

3.5.3. A tuition fee of Rs. 20 a month or Rs. 200 a year is collected from such of the students as opt for the English medium for reasons other than that mentioned in 3.5.2. above. Even in this case the usual concessions admissible to the scheduled castes and tribes and the backward classes will be available.

3.5.4. The medium of instruction for the vocational subjects will be determined by the medium chosen for the related subject under Part III of the general course mentioned in 3.2.4. above.

#### 4. THE VOCATIONAL SPECTRUM.

##### 4.1. VOCATIONALISATION—THE CORE :

The crux and core of the major educational reform of restructuring is 'Vocationalisation'. Vocationalisation as defined by UNESCO, is a comprehensive term embracing knowledge, understanding, skill and attitude relating to relevant occupations or vocations. Vocational education varies from mere technical training and includes components of general education too. The importance of vocationalization is vividly understood by analysing its objectives.

##### 4.2. OBJECTIVES :

The lofty objectives of vocationalization as reiterated by various Commissions are as follows :—

(i) In a developing country, it provides productivity—oriented education which is very vital for economic development.

(ii) It aims at making our youths technically educated and committed to national goals.

(iii) It enables to arrest the mounting educated—unemployment problem by matching the supply of the output of the education system to the manpower demands of the economic system.

(iv) It enables to divert a certain percentage of students with aptitude for technical skills, as middle-level technical personnel who are in great demand in rural areas.

##### 4.3. TAMIL NADU LEADS OTHER STATES :

It is quite heartening to record that Tamil Nadu leads other States in implementing vocationalisation which is the major and vital ingredient of restructuring. The following figures for the current year show the extent of students enrolled in vocational spectrum.

<i>State.</i>			<i>Number enrolled in Vocational Courses.</i>
Tamil Nadu	..	..	24,400
Gujarath	..	..	3,516
Karnataka	..	..	2,412
West Bengal	..	..	2,300
Magarashtra	..	..	2,400
Delhi	..	..	1,180

*Source.*—Working Paper on some Problems of Implementation of vocationalisation of Education—by C. V. Govinda Rao, Head of Unit (Vocationalisation), NCERT, New Delhi.

#### 4.4. THE FACTORS OF SUCCESS :

The achievement in enrolment of students in vocational spectrum of Tamil Nadu is due to two major factors—

(i) Keeping in mind the real spirit of restructuring education, we have firmly decided to locate Higher Secondary Education in the schools which enabled to provide extended educational facility in both general and vocational spectrum by offering courses born out of felt needs of the areas.

(ii) We have commissioned vocational spectrum in the majority of Higher Secondary Schools as planned by the National Review Committee for Higher Secondary Education. Out of 912 Higher Secondary Schools, 709 schools offer vocational courses this year. The number is bound to increase in the coming years as the demand is increasing every year.

#### 4.5. NUMBER OF COURSES :

4.5.1. The total number of vocational courses started in 709 schools is 1,153. 430 schools have started more than one vocational course.

4.5.2. The vocational area-wise distribution of students is as follows :—

<i>Subject.</i>	<i>Number of courses.</i>	<i>Rank.</i>	<i>Number of students.</i>
(1)	(2)	(3)	(4)
Agriculture .. ..	145	3	2,600
Home Science .. ..	110	4	2,000
Commerce and Business	474	1	11,460
Engineering and Technology .. ..	352	2	6,700
Health .. .. .	68	5	1,600
Miscellaneous .. ..	4	6	40
Total .. .. .	<u>1,153</u>		<u>24,400</u>

4.5.3. The rank numbers indicate the present preferences which may be the real demand and the preferences can be studied from time to time through vocational surveys planned already.

4.5.4. The Department of Education offered 52 different types of vocational courses, out of which 37 types of courses have been chosen by the 709 Higher Secondary Schools. The 37 types of courses introduced this year and 18 other courses under contemplation of being introduced next year are furnished in the Annexure.

#### 4.6 FACULTY :

##### 4.6.1. *Full time Vocational Teachers*—

Out of 356 High Schools which had bifurcated courses, 316 have been upgraded as Higher Secondary Schools, 491 persons from the teaching staff like Secretarial Assistants, Commercial Instructors, etc. have been put in charge of 491 courses out of the total 1,153 courses. In these institutions totally 528 supporting staff like Mechanics and Agriculture Maistry are also in service.

##### 4.6.2. *Part-time Instructors*—

Government have sanctioned two part-time instructors per course in respect of the 662 courses in schools where erstwhile teachers of bifurcated courses are not available. This strategy has been adopted on the following grounds :—

(i) The local resources can be fully tapped through the experienced experts drafted as part-time instructors.

(ii) They can arrange on-the-floor training and technical know-how in the respective fields.

(iii) the students can get practical experience in addition to theorising.

(iv) this will enable to utilise the scarce resources available in the region to attain optimum output.

On a general survey it is found the part-time instruction is a fair success as we find scores of Doctors, Engineers, Auditors and Accountants and Bankmen in profession come to the school and take the school to their areas of operation. But in a few areas

schools find it difficult to get the fully qualified part-time people. Government is considering how to overcome this difficulty.

#### 4.7. SALIENT STRATEGIES.

##### 4.7.1. *Headmaster-the king Pin:*

The Head of the school has been for the first time, given the powers to select and appoint the part-time instructors in consultation with the Parent-Teacher Association and Vocational Committee. This enables to decentralise authority and to make the Headmaster accountable and responsible for the successful implementation of the programme. It also avoids delay in getting prior sanctions.

##### 4.7.2. *Criteria suggested:*

In order to help the Headmasters, detailed guidelines have been given in the form of criteria for selection of these part-time teachers. The suggested criteria also help to avoid drafting unqualified instructors.

##### 4.7.3. *General Permission :*

With a view to avoid delay in getting formal permission from the concerned departments from which the Instructors are drafted, all the heads of various departments and State undertakings have been requested to permit the qualified instructors to serve as part-time instructors, and to accept the remuneration therefor.

##### 4.7.4. *Vocational Monitors under the "Earn while you learn" Programme :*

With a view to inculcate leadership qualities among the students, the renowned ancient monitorial system which was emulated by the British as the "Madras System" (சட்டராம் பிள்ளைத் திட்டம்) has been revived. Under this system, one suitable student per course is designated as monitor to assist the instructors. The monitor is paid a remuneration of Rs. 20 per mensem for 10 months in a year. The remuneration serves as an incentive and is a boon especially for the students in rural areas. There is a proposal to extend this scheme to science laboratories also.



#### 4.7.5. *Liaison with Industry :*

As recommended by the Study Group on Vocationalisation under the Chairmanship of Thiru P. Sabhanayagam, I.A.S., Union Secretary for Education, we are attaching the vocational courses with the industries, banks, farms and service-establishments available within the vicinity of the schools.

All leading industrialists, Presidents and Secretaries of Chambers of Commerce have been consulted in the matter of linking vocational education with Industries and Commerce. The dialogue between the authorities connected with the Industries and officers of the Education Department has been useful. The Hon'ble Minister of Education addressed the authorities of all the Chambers of Commerce at Madras and a fruitful marriage between Education and Industry is taking place.

#### 4.7.6. *District Vocational Committee:*

In every revenue district, a district committee on vocational education is functioning with the District Collector as Chairman with the Chief Educational Officer as convenor. The concerned district officers in the departments of Medicine, Public Health, Industries and Commerce and Employment and Training, guide the committee as its members. Through this strategy, the aim of linking education with job is fulfilled. We are happy about the steps taken so far but we have still to stabilise these patterns of inter-linking. It is not an easy matter as for the first time these public agencies are brought into the school or, to be more exact, the school is taken to them.

#### 4.7.7. *Learning in Real Life Situation—Case studies :*

The Government are very particular to train the students in the vocations in real-life situation. Practical on-the-job training is the key-stone of our vocational Edifice. For example, pupils who have taken Nursing are taken to nearby Clinics or Hospitals so that they get the 'feel' of the job. The following are the encouraging examples :—

(a) *Avvai Home Higher Secondary School, Adyar, Madras*, takes its students to Adyar Cancer Hospital (*vide* case study given in the Annexure) and the learned Doctors initiate them in fundamentals of Nursing.

(b) *MNU Jayaraj Nadar Higher Secondary School, Naga-malai* provides a course in small-farm management. The students are given intensive training in the farm of the school. The assistance given by the Agricultural College in Madurai, the biology and botany departments in the Madurai Kamaraj University, the Soil Testing Laboratory at Tirunagar and the seed farm at Pasumalai, is of greater value in providing on-the-field training to the students.

(c) *The Sarvajana Higher Secondary School, Coimbatore* offers the maximum number of courses—six different vocational courses—and due to the intensive training provided to the students, none of the 180 students in the course dropped out.

(d) *The Wesly Higher Secondary School, Madras* is offering vocational courses alone and this is also an evidence for the interest of the public in vocational courses.

#### 4.8. IN-SERVICE TRAINING IN VOCATIONAL EDUCATION.

##### 4.8.1. *For Headmasters:*

Management is a major input in attaining better productivity and with this principle in view, the Heads of Higher Secondary Schools having vocational courses are given orientation training in 6 districts.

##### 4.8.2. *Summer Institute for Vocational Teachers :*

With a view to orient the teachers of vocational courses, the National Council of Educational Research and Training, Delhi has come forward to organize 6 summer institutes each of 21 days' duration. With the initiative and co-operation of Thiru C. V. Govinda Rao, Professor and Head, Vocationalization of Education Unit, National Council of Educational Research and Training, New Delhi, these courses are being organized during the summer holidays.

#### 4.9. THE ROLE OF THE STATE COUNCIL OF EDUCATIONAL RESEARCH AND TRAINING (SCERT).

The State Council of Educational Research and Training being the State level apex body for Educational Research and Training, at all levels of education, plays a significant role in organising

Orientation Courses, induction courses and in-service training programmes. It co-ordinates in organizing such programmes with the NCERT and other educational bodies. It is also co-ordinating in bringing out monographs, guide-books, teachers' handbooks and the research documents of the Higher Secondary level. Voluntary agencies like Ramakrishna Mission Vidyalaya, Periyanaickenpalayam and Avvai Home are dovetailed into the programmes organized for Higher Secondary Education.

#### 4.10. GUIDE BOOKS.

Guide-books with clear instructions and vivid illustrations are necessary for proper teaching and learning. Guide-books are being rotprinted for vocational subjects for the first year and these guide-books have been appreciated by one and all concerned. The NCERT has come forward to give us grants for this and buy our copyright for all India use. This is under consideration. Guide-books for the second year are being prepared and steps are being taken to cyclostyle the materials and supply them to the schools where the courses have been introduced.

#### 4.11. FURTHER STEPS.

##### 4.11.1. *Vocational Survey:*

District Vocational Surveys have already been conducted in the six districts of Madras, Madurai, Coimbatore, Tiruchirappalli, Salem and South Arcot with the financial assistance of the Government of India. Similar surveys in the remaining 9 districts will be undertaken during 1979-80 as soon as funds are provided by the Government of India, who are eager to assist us here as a result of the success achieved in the vocational programme.

##### 4.11.2. *Apprenticeship to students :*

There is a proposal to give apprenticeship facilities to students with the co-operation of the related departments, Industries, Trades, Firms, etc. To obviate the difficulties encountered, necessary measures to bring the vocational students under the purview of the Apprenticeship Act are being worked out and the concerned

Ministry in the Government of India is engaged in a fruitful discussion with the Education department at the highest level.

#### 4.11.3. *District Vocational Officers :*

In order to supervise the effective implementation of vocational courses and to provide guidance at district level, there is need for District Vocational Officers in all the 15 districts of Tamil Nadu. The pace of growth of vocationalisation justifies this and the Government of India is considering cent per cent aid towards this project. If this fructifies, District Vocational Officers known as Deputy Directors (Vocation) will be appointed in the rank of Chief Educational Officers in all 15 districts of Tamil Nadu. In addition, the State Government will also create a Deputy Director (Vocation) at State level to monitor the programme.

## 5. BUILDINGS.

### 5.1. CONSTRUCTION OF CLASSROOMS AND LABORATORIES.

5.1.1. A scheme of providing each of 133 Government Higher Secondary Schools with a multipurpose laboratory and a new classroom at a cost of Rs. 1.57 lakhs per school and a total cost of Rs. 2 crores was taken up during 1977-78. Most of these buildings have already been completed and handed over.

5.1.2. As reported in the 'Hindu', dated March 9, 'modernistic science laboratories are being set up in Government Higher Secondary Schools' exclusively for the plus two stage.

5.1.3. The following excerpts from the same report, which is accompanied by a picture, bear ample testimony to the soundness of the scheme of sanctioning science laboratories:—

“The single-storeyed plus two building has been built with a foundation that can take two more floors when expansion is needed ..... The new science laboratory built as per the type design prepared by the Public Works Department is striking for its planned aesthetic and functional appeal ..... spread over an area of 117 square metres, the laboratory has six well-spaced tables for conducting experiments ..... The fixed tables, made of reinforced concrete, are acid-proof and have ample facilities for four students each ..... The most thoughtful facility in the laboratory is the 'fume cupboard' which also has a show-piece appeal.”

5.1.4. The remaining Government Higher Secondary Schools will be provided with such laboratories and class rooms during 1979-80. For the first time in the history of Education in Tamil Nadu the Government have taken a firm decision to grant one science laboratory to all the Government Higher Secondary Schools in one year. It is expected that most of these will be in position by June 1979. The Public Works Department, which has been granted special staff for this, is doing its utmost.

5.1.5. As Municipal and Private Aided managements have been pressing for Government aid in providing the Higher Secondary Schools with such buildings, the Government have examined and sanctioned a proposal of introducing a system of 40:60 matching grant for these schools subject to a maximum of Rs. 75,000 per school. Managements will also be permitted in justifiable cases by the Director of School Education to divert the surplus in their general funds towards their share of 60 per cent of the total cost.

5.1.6. The problem of accommodation has not been so keenly felt during 1978-79 owing to the shedding of the old XI Standard. But this problem may become a little more acute in the coming year. Government are considering to permit managements to adopt the shift system wherever necessary subject to certain essential conditions. But this position will be tided over soon because of the new matching grant schemes announced.

## 6. SCIENCE EQUIPMENT.

### 6.1. IMPORTANCE.

In a productivity-oriented education system, the role of Science Education is vital. Adequate infrastructure is essential for providing effective science education. Among the various facilities for science teaching, apparatus and equipment are inevitable.

### 6.2. SUPPLY OF FIRST YEAR EQUIPMENT.

During the year 1978-79, 200 Government Higher Secondary Schools have been supplied with the minimum science equipment essentially required for teaching the first year syllabus, at a cost of Rs. 1 crore. The remaining 207 schools will also be similarly

supplied with the first year equipment at a cost of Rs. 1 crore and all arrangements are being made for supplying them before the beginning of the next academic year.

### 6.3. SUPPLY OF SECOND YEAR EQUIPMENT.

It is proposed to supply the 407 Government Higher Secondary Schools with the second year Science Equipment.

### 6.4. NEW STRATEGY FOR QUICK SUPPLY.

Centralised purchase scheme is followed in supplying science equipment to the Government schools, so as to gain the advantages of large scale purchase. This will also avoid ordering delays and arrangements have been made to supply the equipment direct to the schools. The process of centralised purchase is operated with the help of a special expert committee. In spite of the efforts taken to supply the articles in time, there was some bottleneck as most of the articles were supplied from Ambala, Delhi and Varanasi though the majority of the firms which accepted to supply the articles are in Tamil Nadu acting as mere agents of their principals elsewhere.

### 6.5. PURCHASE THROUGH SIDCO.

In order to obviate the delay in supply from the northern States, a new strategy of processing the equipment through the SIDCO, Tamil Nadu, has become necessary. The SIDCO authorities have agreed to supply most of the items from local manufacturers. A purchase committee consisting of the officials of the SIDCO and the Education Department will help in streamlining the purchase procedure. Earnest steps are being taken by the SIDCO and Department of Education to process the equipment locally and to supply them to all the 407 Government Higher Secondary Schools before the schools reopen for the academic year 1979-80. This is again for the first time a major exercise which has been done to supply all the science equipment needed in Tamil Nadu from Tamil Nadu Units. This will generate more employment, reduce the cost of articles as Transport costs are avoided and will permit new inflow of capital of Tamil Nadu manufacturing units.

## 6.6. THE ADVANTAGES OF THE NEW STRATEGY.

There are several advantages of the new procedure of purchasing through SIDCO.

1. The first advantage is that the delay due to transporting the equipment from distant places in North can be avoided and the equipment can be supplied immediately and lessen costs.

2. The new procedure will cut down a major portion of the transportation cost as already stated.

3. In addition, the small scale industries in Tamil Nadu will get an opportunity to enter into this new area of production for the first time in a big way which will help their further development.

4. The new procedure of producing them locally will generate new employment opportunities and will curtail the unemployment problem to a certain extent.

5. This procedure will rear and foster a new stock of skilled craftsmen in Tamil Nadu and will once again link Industry with Education.

## 6.7. PRIVATE SCHOOLS.

In the case of Private and Municipal Schools, it has been decided that 40 per cent of the expenditure actually incurred on science equipment may be paid as Government grant subject to a maximum of Rs. 25,000 per school. Equipment approved by the SIDCO and the Education Department may also be recommended to aided and local body Higher Secondary Schools.

It is also being considered by Government whether the amenity fee fund and other special fee accumulations may be permitted to be taken as the management's share in really needy cases.

## 6.8. LIBRARY.

### 6.8.1. GOVERNMENT SCHOOLS.

Provision of a Library with suitable books on Higher Secondary Education for each of the schools is a felt need. For this purpose, it is proposed to supply initially books worth Rs. 6,000 for each school during 1979-80 in respect of all the 413 Government Higher Secondary Schools.

### 6.8.2. LOCAL BODY AND AIDED SCHOOLS.

In the case of Private and Municipal Schools, it is proposed to meet 40 per cent of the expenditure actually incurred on the supply of books subject to a maximum of Rs. 2,400 for each school. For this purpose, the books on Higher Secondary Education found fit for the library will be listed by an Expert Committee to be set up by the Department of School Education and communicated to managements of private schools and Commissioners of Municipalities, who will choose the books from the list for purchase. The expenditure involved in the supply of books worth Rs. 6,000 for each school for 413 Government schools and Government grant at Rs. 2,400 per school for 457 Aided, Municipal and Corporation schools will be around Rs. 37 lakhs during 1979-80. It is also being considered whether in needy cases of Aided schools the special fee and amenity fee accumulations may be permitted to be utilised as the management's share.

### 6.8.3. SPECIAL SCHOOLS.

The Anglo-Indian and Matriculation Higher Secondary Schools will not come under the purview of any of the grant-in-aid schemes mentioned in this section as they are governed by separate rules for the High schools and they will continue to be governed by those rules in respect of the Higher Secondary Course too. But in special cases Government may review each case on its merits.

## 7. RECOGNITION AND AID.

The Government has laid down certain conditions for Recognition and aid in respect of Higher Secondary Schools.

### 7.1. ENDOWMENT.

A cash endowment of Rs. 25,000 shall be created in one instalment or in three annual instalments of Rs. 15,000, Rs. 5,000 and Rs. 5,000.



## 7.2. FEES.

7.2.1. Apart from the tuition fee to be collected from English medium students as specified in 3.5.3 above, special fees will be collected at the following rates :—

	Rs. P.
1. Admission fee	0.50
2. Literary Association	1.50
3. Library	2.00
4. Games and Community Service	3.00
5. Medical Inspection	1.00
6. Audio-Visual Education	2.00
7. Examination and Stationery	4.00
8. Calendar	1.00
Total ...	15.00

Amenity Fee—Rs. 10.00 collected in two instalments.

Laboratory Fees—Rs. 20.00 from Science students only (Academic).

Vocational Course Fee—Rs. 20.00.

7.2.2. Matriculation schools and Anglo-Indian schools which have been collecting tuition fees for Standards I to X, are allowed to collect tuition fees for the Higher Secondary Course too.

Anglo-Indian schools which have been receiving grant for Standard I to X will be eligible for grant on the same pattern for the Higher secondary course too.

## 7.3. GRANT-IN-AID.

The system of grant-in-aid in force for secondary schools has been extended to Higher Secondary Schools.

## 8. STAFF PATTERN.

### 8.1. FIXATION OF STAFF.

The norms for the fixation of teaching staff have been laid down with due consideration of the ways in which the Higher Secondary System functions differently from the High School as well as the college.

## 8.2. WORKLOAD.

A workload of 18 clock hours a week has been prescribed for the teachers.

## 8.3. BETTER QUALIFIED STAFF.

8.3.1. To meet the demands of the enriched and updated syllabi of the Higher Secondary Course and in view of its post-matric nature, a post-graduate degree in the language or subject has been prescribed as the requisite qualification for teachers. Upgraded scales of pay have also been sanctioned for teachers possessing these qualifications.

8.3.2. As the lecture method of colleges cannot be adopted at the plus two stage for obvious reasons and the classroom techniques of the school system will be more suitable for this level, the B.T., or B.Ed., degree has also been prescribed as essential. This is one of the essential pre-requisites.

8.3.3. In the case of language teachers those who possess the M.A. degree in the language with the Pandit's training or Secondary Grade training certificate have also been considered for appointment though they do not have B.T.

8.3.4. In the case of vocational teachers, the post-graduate degree and the training qualification are not insisted upon, owing to the dearth of teachers with such qualifications and the difficulty in attracting them to Higher Secondary Schools, even if they are available.

8.3.5. For the engineering subjects a first class diploma will be accepted in lieu of a degree.

8.3.6. The appointment of part-time teachers for the vocational courses is explained in detail in 4.6.2. above.

## 8.4. DEPLOYMENT OF EXISTING STAFF.

8.4.1. The teachers in service with post-graduate and teaching degrees have been employed for the Higher Secondary Course to the extent necessary. Where teachers with these qualifications are not readily available, the services of the existing B.T. Assistants without post-graduate qualifications are utilised.

8.4.2. The total number of teachers inducted for teaching the academic subjects of the first year Higher Secondary Course during 1978-79 is 7941 including 1300 additional teachers. Of these 2742 are post-graduates. Provision has been made in the budget for the appointment of 1740 additional teachers during 1979-80 to teach the languages under Parts I, II and III.

8.4.3. The introduction of the Higher Secondary Course with better prospects has been the greatest incentive to teachers to improve their qualifications and a large number of them have acquired post-graduate degrees.

8.4.4. The employment of the staff of the discontinued Diversified Courses in the new Vocational Courses of the Higher Secondary Course is explained in 4.6.1.

#### 8.5. PHYSICAL EDUCATION TEACHERS.

8.5.1. The Physical Directors and Physical Education Teachers already working in the upgraded high schools impart physical education to the Higher Secondary students too.

8.6. As there are a good number of teachers with Physical Director's qualifications among the Physical Education Teachers employed in schools and it is only proper that physical education should also be imparted by upgraded staff like the other subjects, the upgrading of the posts through a phased programme is under active consideration and Physical Directors will get their due places in Higher Secondary Schools.

### 9. INSERVICE TRAINING PROGRAMMES AND COLLEGE COMPLEX.

#### 9.1. THE NEED.

The number of teachers manning the academic courses at present is as follows :—

<i>Government.</i>	<i>Local Body.</i>	<i>Aided.</i>	Total
3 747	35 2	3,842	7941

Out of these 7 941 teachers, 2,742 teachers are post-graduates. Most of the Higher Secondary Teachers, both Post-graduates and degree holders, have been chosen from among the existing staff of high schools either because they are fully qualified or rendered

surplus due to the abolition of the old Standard XI and electives in high schools during 1978-79. It has been found necessary to expose them to the new syllabus by giving them a short Orientation Course.

## 9.2. NUMBER OF TEACHERS TRAINED.

The Master Educators for conducting this orientation courses were drawn from the Government and private colleges. They were given 3 days' training by the syllabus framers highlighting the important teaching points, practicals to be conducted and methodology. Totally 5,316 teachers have been trained in Maths., Physics, Chemistry, Botany, Zoology, Economics and Home Science.

## 9.3 FINANCE.

9.3.1. The expenditure involved in this programme was Rs. 8.8 lakhs and the funds of the Tamilnadu Text Book Society were utilised for this purpose.

9.3.2. It is proposed to conduct similar course for the same teachers in the same subjects in the second year syllabus.

## 9.4. ORIENTATION FOR THE HEADS OF SCHOOLS.

9.4.1. One day Orientation Seminars were conducted for Headmasters three times this year in order to get the necessary feedback from them.

9.4.2. Three day Orientation courses were conducted for 50 Headmasters of Higher Secondary Schools in each of six districts during March, 1979. The courses were mainly intended for orienting the Headmasters in educational planning and management.

In addition to academic orientation with the help of the NCERT New Delhi and SCERT, Tamilnadu, the Directorate of School Education has organised courses for Headmasters on Educational Planning and Management with special reference to Vocational Education in six districts.

## 9.5. CONTINUING EDUCATION CENTRES.

### 9.5.1. *The need:*

With the adoption of Higher Secondary Education in Tamil Nadu there is need for massive continuous programmes to orient the teachers, who play a vital role in the successful implementation of the scheme. In addition to crash programmes organised, there is need to provide in-service training to teachers as a continuous process throughout the year including holidays and Sundays if willing teachers want these courses.

### 9.5.2. *Present Centres:*

With this view, four continuing Education Centres have been started at the following places with aid from NCERT, New Delhi :—

1. Teachers Centre SCERT, Madras-600 006.
2. Sarvajana Higher Secondary School, Peelamedu, Coimbatore.
3. Thiagarajar Higher Secondary School, Madurai.
4. Dr. ACTC Model Higher Secondary School, Karaikudi.

### 9.5.3. *Evening courses :*

Most of the courses in these centres are organised during evenings and holidays without affecting the normal functioning of the schools.

### 9.5.4. *The Major functions and activities:*

The centre is utilised for organising the following programmes:

- (i) Demonstrations, lectures, and other teacher improvement programmes.
- (ii) Contact Programmes, for correspondence courses.
- (iii) Tutorial for correspondence course in various subjects.
- (iv) Consultancy Service, throughout the year.
- (v) Feedback seminars and follow-up programmes.
- (vi) Developing teaching materials.

Trained Higher Secondary school staff nearby college faculty are employed to give this continuous on-the-job training.

### 9.5.5. *Proposal for additional centres:*

Considering the usefulness of these centres, there is a proposal to open four more centres at Vellore, Salem, Kumbakonam and Tiruchirappalli this year with NCERT aid.

### 9.5.6. *Finance.*

The teachers attending the courses are paid conveyance charges not exceeding Rs. 3 per day and the Resource persons are paid a lumpsum honorarium of Rs. 200 per mensem. A sum of Rs. 2,37,600 is required towards expenditure on the four centres and it is met by the NCERT and the State Government on a 50-50 basis.

## 9.6. COLLEGE COMPLEX.

### 9.6.1. *The need.*

The Higher Secondary Course has been located only in schools. Being the first year of implementation, not all these schools have the laboratory facility for teaching the Science subjects according to the requirements of the Higher Secondary syllabus.

9.6.2. In order to overcome this situation and to make the best use of the laboratory facility available in colleges, especially when the abolition of the Pre-University Course in college is in the anvil, a "College Complex" scheme similar to the "School Complex Scheme" has been evolved.

### 9.6.3. *Clustering.*

It is proposed to attach a cluster of about five Higher Secondary Schools to a college in close proximity, where laboratory facilities are available and where the faculty members are willing to participate in the scheme. The Director of Collegiate Education has so far identified 67 colleges which are willing to join the College Complex scheme.

### 9.6.4. *Contingency and Transportation.*

The schools will meet the cost of consumable articles needed for conducting the practicals and provision will be made for transporting the students from schools to the colleges according to a time schedule drawn up in consultation with the college staff. In this

connection it is proposed to transfer about 20 replaced Pallavan Transport Corporation Buses to the different College Complex centres in the State. This scheme of Transport can be extended every year.

#### 9.6.5. *Plan for 1979-80.*

The College staff who are rendered surplus after the abolition of the Pre-University Course in 1979-80 will be engaged in the college complex scheme. These college faculty will be positioned in colleges only and they will draw their salary from colleges. They will however attend to the college complex programme and a small unit called college complex unit in colleges may function. A detailed scheme prepared by the Director of School Education is under consideration in consultation with the Director of Collegiate Education.

### 10. EXAMINATIONS

#### 10.1. *First Year—District Level Common Examination:*

The examination at the end of the first year Higher Secondary Course will be purely internal. But there will be common question papers at the Revenue district level and evaluation will be made by the individual schools only. The principles of promotion will be framed by the staff council of the school concerned. Each school will have a separate staff council for the Higher Secondary Classes, for the purpose of framing the rules of promotion.

#### 10.2. *Committee for Model Question Papers.*

For setting the common question paper at the Revenue District level, a district level common examination committee has been constituted for each revenue district under the Chairmanship of the Chief Educational Officer. The model question papers evolved by the committee are circulated to the Higher Secondary schools.

#### 10.3. *Second year—Public Examination:*

The first Higher Secondary Public Examination will be held in 1980. The Director of Government Examinations has been authorised to conduct the examinations. A separate Board of Higher Secondary Examination has been constituted for the purpose, under the Chairmanship of the Director of Government Examinations. The public examination held at the end of the second year course will

cover only the portions studied during the second year. The model question papers will be evolved by the Board of Higher Secondary Examinations. The scheme of the examination has been incorporated in the syllabus for Higher Secondary Schools already published.

## 11. VERTICAL MOBILITY OF HIGHER SECONDARY STUDENTS.

### 11.1. *First Batch in July 1980.*

The first public examination at the end of the Higher Secondary Course will be held in 1980 and the candidates will be seeking admission to the Higher Courses of study at degree level both in Arts and professional colleges.

### 11.2. *General Spectrum.*

In order to facilitate their admission to the degree courses of provisions in the University Regulations. It is seen from the correspondence with the Universities in the State that there may not be any problem in the case of students of General Education joining the degree courses in Arts and Science like B.A., B.Sc. and B.Com.

### 11.3. *Vocational Spectrum:*

11.3.1. Only in the case of the vocational students, universities want these students to study one more elective. It is said that the students opting for the Medical courses should study three science subjects at the pre-degree level whereas the High Secondary students taking the vocational courses study only one science subject, barring students taking health courses for whom a foundation course in the other science subjects has been built in. Likewise, students opting for Engineering are required to study Science and Maths.

11.3.2. One suggestion that has emerged after a dialogue with the Vice-Chancellors in the State is that the vocational students opting for engineering may join the second year Polytechnic courses and after completing it, they may join the Engineering course. They will be exempted from undergoing the first year course at the



polytechnic. Similarly candidates opting for medical courses may be able to join the second year nursing course if the Medical Council agrees.

A certain percentage of seats may have to be reserved in these courses for such vocational students. This suggestion is under active consideration and a dialogue with the Vice-Chancellors in the State is going on and a decision will be taken in time on this issue of vertical mobility.

#### 11.4. *Prescription of eligibility—Criterion :*

In this connection it is heartening to record here the great confidence reposed in the Tamil Nadu Board of Higher Secondary Education by all the Universities in Tamil Nadu alike by their asking the Board of Higher Secondary Education to suggest the minimum marks that may be prescribed for admission to the degree courses, which has so far been the prerogative of the Universities concerned. By the Board prescribing the minimum there will be uniformity among the Universities also.

#### 12. *Conclusion.*

12.1. There is no doubt that the introduction of Higher Secondary Education in Tamil Nadu has been an important milestone and the advent of a new era and a significant epoch in Education.

12.2. A lot of thinking and planning has gone into the implementation of this need-based and mass-oriented scheme. The credit goes to the teachers and students of Tamil Nadu who have come forward with full enthusiasm inspite of heavy odds and the departmental officers, who strained their utmost, and the public, who responded magnificiently, and the Government of India and NCERT, who are ready to help always.

12.3. This beneficial reform has been widely welcomed by teachers, parents, the press, the general public and the students as well, though there have been a few rightful criticisms now and then, here and there, partly out of interest and partly out of ignorance of

the scheme. But no educational reform in Tamil Nadu has captured the interest and attention of people so much as this. The Government is particularly grateful to all the critics as they helped the Government to review their position often.

12.4. The wisdom of the decision to adopt this new pattern of education and locate Higher Secondary Education in schools has been amply vindicated by the reception it has met with, as may be seen from the total enrolment of 1.14 lakhs in the higher secondary classes against the total acceptable strength of 85,000 in Pre-University classes. Such increased enrolment has been a pleasant surprise even to the sponsors of the scheme.

12.5. While we are proud of and happy about the success we have achieved in so short a period, we are also aware of the handicaps and pitfalls we have come across and yet to cross. The non-availability of qualified teachers in sufficient numbers, the difficulty in extending Higher Secondary Education to every Panchayat Union Block (though we have covered almost all) because of the un-economic strength in the schools and non-availability of accommodation and such other problems have stood in the way of our implementation of the scheme to our entire satisfaction.

12.6. We will spare no pains to gear up our whole educational and administrative machinery to facilitate the successful implementation of the scheme. We are confident that we will be able to do better next year and realise our ambition of bringing the desired changes in education in Tamil Nadu with the whole-hearted co-operation of all interested in Education.

12.7. We have begun well. We cannot say we have achieved cent per cent success. But the measure of success we have recorded, especially the fact of bringing several thousands of more pupils in rural areas into this higher secondary education scene in one year is heartening. But we are not complacent. We don't want to rest on our oars. The Government is aware that hard days of toil and planning are ahead. To this end the Government solicits the advice and hearty co-operation of all concerned.

## ANNEXURE-I

Serial Number	Name of Revenue District	Total number of Panchayat Unions.	Number of Unions covered	Number not covered	Number not covered but covered by adjoining Schools in Municipal area	Number of Unions not covered completely
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1.	Chengalpattu ..	27	22	5	3	2
2.	South Arcot ..	34	26	8	3	5
3.	Thanjavur ..	34	32	2	..	2
4.	Tiruchirappalli ..	31	27	4	3	1
5.	Pudukkottai ..	10	9	1	..	1
6.	Madurai ..	34	29	5	4	1
7.	Ramanathapuram ..	32	25	7	5	2
8.	Thirunelveli ..	31	27	4	4	..
9.	Kanyakumari ..	9	9	..	..	..
10.	North Arcot ..	36	36	..	..	..
11.	Salem ..	35	31	4	4	..
12.	Dharmapuri ..	16	14	2	2	..
13.	Coimbatore ..	41	36	5	5	..
14.	The Nilgiris ..	4	4	..	..	..
TOTAL ..		374	327	47	33	14

## ANNEXURE II-A.

## LIST OF VOCATIONS INTRODUCED DURING 1978-79.

## I. AGRICULTURE:

1. Dairying.
2. Poultry.
3. Small Farm Management.
4. Agro-based Industries.
5. Farm Mechanic and Post Harvest Technology.
6. Sericulture and Apiculture
7. Plant Protection (pests, disease and weeds).
8. Vegetables and fruits.
9. Agricultural chemicals.
10. Crop production.
11. Spices and plantation.
12. Fisheries.
13. Floriculture and Medicinal plants.

## II. Home Science :

14. Food preservation.
15. Dietetics, Nutrition and Food preparation.
16. Dress designing and making.
17. Child welfare and Nutrition.

## III. Commerce and Business:

18. Office Secretaryship.
19. Accountancy and Auditing.
20. Banking Assistant.
21. International Trade.
22. Marketing and Salesmanship.
23. Business Management for Small Scale Industries.
24. Co-operative Management.

*IV. Engineering and Technology:*

25. Building Maintenance.
26. Electrical Domestic Appliances—Repairs and Maintenance.
27. Radio and Television—Maintenance and repairs.
28. General Machinist.
29. Electrical Motor Rewinding.
30. Textile Technology.
31. Leather Technology.
32. Maintenance and Servicing of Textile Machinery.

*V. Health (Foundation Science):*

33. Medical Laboratory Assistant.
34. Nursing Course.
35. Hospital House Keeping.

*VI. Miscellaneous:*

36. Music.
37. Photography.

## ANNEXURE II-B.

## LIST OF VOCATIONS PROPOSED TO BE INTRODUCED.

*I. Agriculture :*

1. Rural Construction Technology and Soil Conservation.

*II. Home Science :*

2. Baking and Confectionery.
3. Catering.
4. Interior Decoration.
5. Designing, Dyeing and Printing.
6. Catering with special reference to Hotel Management.

*III. Commerce and Business :*

7. Insurance.
8. Materials' Management.

*IV. Engineering and Technology :*

9. Cement Technology.
10. Printing and Compositing Technology.
11. Synthetic Gem Cutting.

*V. Health :*

12. E.E.G.—E.C.G.—Audiometry.
13. Ophthalmic Technician.
14. Dental Mechanic.
15. Dental Hygienists.
16. Radiological Assistants.

*VI. Miscellaneous :*

17. Tourist Guide.
18. Advocates Clerk.

## ANNEXURE III.

VOCATIONAL EDUCATION—NURSING COURSE—A CASE  
STUDY-AVVAI HOME HIGHER SECONDARY  
SCHOOL, MADRAS-20.

*Institution :*

Avvai Home is the pioner institution in the State of Tamil Nadu to introduce Gandhian principles in education. Education is made purposeful through vocationalisation and practical by correlation to real life situations.

Dr. (Mrs.) Muthulakshmi Reddi, the founder of this vast institution was the first woman to be included in the Hartog Education Committee and with her wide travel and rich experience and above all with the profuse interest in women's progress, started this in 1930.

The Correspondent, Mrs. Manda Krishnamurthy being a member of the Nursing Council, knew the great need for Auxiliary Nurses for the Multipurpose Health Centres to be introduced and hence very fittingly selected Nursing Course as the vocational stream in the Higher Secondary stage.

*Nature and General Objectives of the Course :*

Auxiliary Nurses are trained here by means of active and intensive educational programmes for two years to function in the hospital or community as a member of the Nursing and Health team.

*Strength :*

One section consisting of 41 students who have successfully completed Tenth Standard.

*Subjects of Study and Duration :*

Basic sciences applied to Nursing Principles and Practice of Nursing, Nursing and Community organisation and Introduction to Medical, Surgical and Community nursing are taught for twenty (20) periods a week, including practicals. As such everyday the students are sent to the hospital throughout the afternoon session and on Sundays, special field experience is also given.

The languages under Parts-I and II, Tamil and English and the allied subjects to Nursing, Physics and Chemistry and the Moral Instructions are the general subjects taught apart from the above vocational subjects.

#### *Staff.*

Qualified subject teachers handle Tamil, English, Physics and Chemistry. One nursing tutor teaches the Nursing Subjects and provides field experience and one part-time doctor handles the Basic Sciences applied to Nursing.

#### *Teaching Facilities.*

Avvai Home provides the following essentials as:—

- (1) Spacious class room.
- (2) One demonstration-cum-laboratory room.
- (3) One reading room-cum-library.
- (4) Office room with adequate storage-space for records and equipment.
- (5) Equipments necessary for teaching nursing procedure.
- (6) Books and journals and audio-visual aids, charts, models, etc.

#### *Clinical Facilities.*

The Cancer Institute in Adyar, founded by Dr. (Mrs) Muthulakshmi Reddi, is adopted as the main hospital for clinical facilities. Dr. S. Krishnamurthy, M. S., the Director and Scientific Director of the Institute has readily agreed to extend all help. Dr. Aruna Chandrasekhar, an experienced doctor in training Auxiliary Nurses and Mr. Chidambaram, the Nursing tutor give instructional classes and field practice and experience and supervised training.

In addition to the Cancer Institute, learning experience is also provided at the following Health Agencies :

- (1) Primary Health Centre.
- (2) Maternity and Child Health Centre.
- (3) Voluntary Health Service.



- (4) Rural Dispensaries.
- (5) Corporation Dispensaries.
- (6) Institutional Health Services.
- (7) Home Science and Nutrition centres.
- (8) Creches.
- (9) Family Planning Centres.

Avvai Home, being residential institution has an ideal environment for Nursing course. Many of the students have been provided hostel accommodation too.

#### *Service opportunities.*

The general education blended with such vocational training strengthens the capabilities of the Auxiliary Nurse, providing a foundation which could enhance employment prospects and increase opportunities for career advancement.

(1) They can serve in the rural areas and attend to environmental sanitation, health education, nutrition education and family welfare and pave way for real reconstruction of villages.

(2) They can do community health nursing in urban areas, through services at various Health centres and Hospitals, residential institutions and slum areas.

(3) Their services can also be utilised for domiciliary Nursing as caring the aged and infirm, disabled and handicapped, chronically sick and bed-ridden, post-natal and surgical and for emergencies, communicable diseases, mental health, baby sitting, etc.

(4) Thus the vocational programme of Nursing at Avvai Home, is reality based and life oriented in the fullest sense. It is said that 'every mother should be a nurse' and as such this gives very purposeful and preparatory education specially to girls and highly commendable indeed, as the institution has undertaken the great responsibility of training numberless 'Nightingales' for the community.

**Sub. National Systems Unit.**  
**National Institute of Educational**  
**Planning and Administration**  
17-B, SriAurobindo Marg, New Delhi-110016  
ECC. No. .... 97 .....  
Date..... 24/5/82 .....

NIEPA - DC



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