

**CENTRAL ADVISORY BOARD
OF EDUCATION IN INDIA**

**Report of the Committee of the
Central Advisory Board of Education
appointed to consider the Wardha
Education Scheme.**



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REPORT OF THE COMMITTEE OF THE CENTRAL ADVISORY BOARD OF EDUCATION APPOINTED TO CONSIDER THE WARDHA EDUCATION SCHEME.

The Central Advisory Board of Education at its meeting held in January 1938 appointed a Committee, with powers to co-opt, to examine the scheme of educational reconstruction incorporated in the Wardha Scheme in the light of the Wood-Abbott Report on General and Vocational Education and other relevant documents, and to make recommendations.

This Committee met in Simla on the 28th, 29th and 30th June 1938 and was attended by the following members:—

1. The Hon'ble Mr. B. G. Kher, Premier and Education Minister, Government of Bombay. *Chairman.*
2. The Hon'ble Dr. Syed Mahmud, Minister for Education, Government of Bihar.
3. The Hon'ble Pandit R. S. Shukla, Minister for Education, Government of the Central Provinces and Berar.
4. Lady Grigg.
5. Rajkumari Amrit Kaur.
6. Dr. Sir Zia-ud-Din Ahmad, C.I.E., Ph.D., D.Sc., M.L.A.
7. Mr. W. H. F. Armstrong, I.E.S., Director of Public Instruction, Punjab.
8. Mr. Syamaprasad Mookerjee, Vice-Chancellor, Calcutta University.
9. Dr. Zakir Husain, Principal, Jamia Millia Islamia, Delhi.
10. Khan Fazl Muhammad Khan, Commissioner and Secretary to His Exalted Highness the Nizam's Government, Department of Technical and Vocational Education.
11. Mr. J. E. Parkinson, C.I.E., Educational Commissioner with the Government of India.

Mr. R. M. Statham, C.I.E., I.E.S., Director of Public Instruction, Madras, was unable to attend the meeting as he was on leave out of India.

Mrs. Hansa Mehta, Parliamentary Secretary for Education to the Hon'ble the Prime Minister, Government of Bombay, was co-opted and attended the meeting.

2. The papers mentioned in appendix I to this Report were circulated to the members of the Committee beforehand.

3. *Genesis of the Wardha Scheme.*—The present educational system of India has of recent years been condemned on the grounds that it has failed to adjust itself to changed conditions and is "uninspired by any life-giving and creative ideal". In 1937 Gandhiji initiated in the columns of the Harijan a discussion of the Indian educational problem and offered many suggestions the main principles of which were:—

- (a) The course of primary education should be extended at least to seven years and should include the general knowledge gained up to the matriculation standard less English and *plus* a substantial vocation.

- (b) For the all-round development of boys and girls all training should so far as possible be given through a profit-yielding vocation.
- (c) This primary education, besides training the mind, should equip boys and girls to earn their bread by the State guaranteeing employment in the vocations learnt and by buying from the schools their manufactures at prices fixed by the State.
- (d) Such education taken as a whole can and must be self-supporting.
- (e) Higher education should be left to private enterprise and the State universities should be purely examining bodies.

4. An All-India National Education Conference, which was convened at Wardha in October 1937 under the presidentship of Gandhiji to consider his proposed scheme of self-supporting education, passed the following resolutions:—

- (a) that free and compulsory education be provided for seven years on a nation-wide scale;
- (b) that the medium of instruction be the mother-tongue,
- (c) that the Conference endorses the proposal made by Gandhiji that the process of education throughout this period should centre round some form of manual and productive work and that all the other abilities to be developed or training to be given should, as far as possible, be integrally related to the central handicraft chosen with due regard to the environment of the child;
- (d) that the Conference expects that this system of education will be gradually able to cover the remuneration of the teachers.

The age of entry to school should be 7 years and the standard attained at the end of 7 years schooling should approximate to the Matriculation (less English).

5. The All-India National Education Conference then appointed a Committee under the Chairmanship of Dr. Zakir Husain, Principal of the Jamia Millia Islamia, Delhi, to formulate a scheme of basic education on the lines suggested by its resolutions. This Committee worked out in detail the implication of those resolutions and its report is the authoritative Wardha Scheme of Education.

6. That Report (called for purposes of reference, the Zakir Husain Report) was in the hands of each member of the Central Advisory Board of Education Sub-Committee. Before the discussion either on the principles on which the Wardha scheme is based or on its details, Dr. Zakir Husain, whose presence at the meetings was of the utmost value, pointed out that many of the criticisms to which the Wardha Scheme had been subjected, arose from either a misconception of the fundamental ideas on which the scheme rests or from statements extracted from their context which give a false or distorted impression.

7. Dr. Zakir Husain felt that the discussion would be less discursive if he first pointed out what the Wardha Scheme was not. The removal of misunderstandings and the correction of false impressions would enable the members of the Committee to confine their remarks to the real and not to some hypothetical scheme and so avoid irrelevancy.

8. Dr. Zakir Husain mentioned that criticism was directed mainly against the idea that the scheme was conceived wholly with the set purpose of making education self-supporting by the sale of articles made by the pupils. It appeared to be a scheme of production with conscript child labour. This impression was entirely wrong. The scheme was one of education, not production. The educative value of craft-work and activity was throughout emphasised and the economic question was quite subsidiary. Education in Wardha schools would be carried on through real life situations arising from the physical and social environment of the child and the craft activity. Education through activity is now considered by all teachers as "the most effective approach to the problem of providing an integral all-sided education".

9. The Zakir Husain report defines the aim of the Wardha Scheme not as "the production of craftsmen able to practise some craft mechanically but rather the exploitation for educative purposes of the resources implicit in craft work", and sounds a warning of the obvious danger of stressing the economic aspect to the sacrifice of the cultural and educational objectives. The Wardha scheme rejects any mechanical labour in schools *merely* for production and states as a necessary condition of education that "the craft or productive work chosen should be rich in educative possibilities. It should find natural points of correlation with important human activities and interests". This view is identical with that expressed in paragraphs 10-17 and 24-25 of the Wood-Abbott Report and is in complete accord with modern educational thought. The Wardha Scheme deals only with compulsory primary education and does not imply any stoppage of grants to existing schools or colleges.

10. Hence all criticism, directly or indirectly implying that child labour is to be exploited for economic purposes, so that the schools can be wholly or even partially self-supporting is irrelevant. Critics therefore who believe that the schools will be industrial or vocational in the narrow sense and that the system is intended to force young children into prescribed vocations have not appreciated the real significance of the Wardha Scheme.

11. Dr. Zakir Husain deprecated uninformed criticism of the Scheme as a result of statements made by enthusiastic but misguided protagonists. He denied that the scheme would remove unemployment; indeed the question of unemployment was not even mentioned in his report, though he felt that the pupils of the Wardha schools would be better "employable" material than the pupils of existing schools because the Scheme was designed to produce "workers who will look upon all kinds of useful work as honourable and who will be both able and willing to stand on their own feet". He also denied that the Scheme stated or even implied either that the Government would provide employment at the end of the course or that all existing schools were to be transformed immediately into Wardha schools.

12. Dr. Zakir Husain next answered the criticism which had arisen in one form or other mainly from Muslim sources that the proposed Wardha schools neglected religious education, and were entirely secular in outlook. He admitted that the scheme prescribed no syllabus in religious education as the difficulties were obvious, but one of its foundations was a respect for all religions. The Wardha scheme neither made nor implied any alteration in the present position by which any community at its own expense is permitted to give religious teaching in Government or Local

Body schools to the pupils of that community out of school hours. Dr. Zakir Husain stated that no community need have the least apprehension that the Wardha Scheme was intended to discourage any form of religion or religious observance.

13. Misunderstandings also existed in regard to co-education. The Wardha Scheme does not make co-education compulsory to any age, and can be adopted in either boys or girls or co-educational schools. Indeed it expresses no opinion whatever whether or not co-education is desirable. The option given to parents in the Wardha scheme to withdraw their girls from school after the completion of the twelfth year does not imply that boys and girls should receive co-education up to that age.

14. After illuminating the educational and sociological bases on which the Wardha Scheme rests, Dr. Zakir Husain referred to the charge that under the Wardha scheme universities were to be merely examining bodies and as such would receive no financial aid from Government. Such a charge needs no refutation. His Report expressly excludes any discussion on secondary education for pupils above the age of 14. If the Wardha Scheme is adopted, a system of higher education co-ordinated with the Wardha organisation will have to be worked out.

15. To summarize, the Wardha Scheme—

- (a) emphasises education through activity and is not primarily concerned with the production of saleable material;
- (b) does not make spinning and weaving the only basic craft, but admits of the inclusion of any craft of equal or higher educative possibilities;
- (c) does not imply the ruling out of facilities for religious (denominational) education, where any community desires it; and
- (d) does not state or imply that the salary of the teachers must be directly met from the sale of material made in the school.

Dr. Zakir Husain's explanation removed from the minds of some members of the Committee the apprehension aroused by the literature which preceded the formulation of the Wardha Scheme and by some of the phraseology of the Wardha Scheme Report itself and so prepared the ground for a discussion of details.

16. The framers of the Wardha scheme deliberately confined their proposals to village education as the bulk of India's population resides in villages. The scheme is therefore primarily for rural areas. The Committee therefore wish to emphasise that it should first be introduced in rural areas and should not be extended to urban areas without necessary modifications though the principle of education through activity is as true for urban as for rural schools.

17. *Age range for "basic" education.*—The Zakir Husain Committee lays down a seven years course of education from the age of 7 to 14. They, however, realise that by fixing 7 as the age for the introduction of compulsory education, they have neglected a very important period of the child's life. In view of financial and other considerations, they did not feel justified in including the education of children below the age of 7 as a part of the compulsory scheme, though they hoped that nursery and infant schools would be started and encouraged by the State.

18. The normal age for admission to school in all advanced countries is 5 or 6. Even in India under the existing system of education children are usually admitted to school about the age of 6. This period of a child's life offers such educative possibilities that the majority of members preferred that the age range for compulsory education should be six years to fourteen years, though children of 5 years of age should not be excluded from school. It was agreed that compulsion could not be made effective merely by passing an Act making compulsion universal. Such a course would be unwise and impracticable, but the difficulties must be faced and effective compulsion extended as rapidly as possible.

19. In provinces where compulsion is in force the age limits are usually 6 to 11 (Appendix II). The Committee agree that this higher age limit must be increased to 14. Protagonists of the Wardha Scheme prefer that if for compulsory education, any lesser period than seven years has to be taken, the higher age limit of 14 should remain and whatever period is fixed should be reckoned downward from the age of 14 rather than upward from the age of 6. In other words, compulsion from 9 years to 14 years is preferable to compulsion from 6 years to 11 years. They argue that in the present circumstances education in the early years is of little worth, causes wastage and stagnation and is therefore a waste of money and that the years of adolescence offer greater educative possibilities than the age of childhood. By retaining the higher age limit, civic and social responsibilities, permanent literacy and craft skill and interest can be better developed.

20. The Committee whilst recommending that the age for compulsion should be 6 to 14 were not unaware of the financial and other difficulties, particularly that of the supply of suitable teachers, and feel that the approach to universal compulsory education from 6 to 14 will depend on the financial and other resources of the different provinces. A number of members prefer the compulsory period to begin from the age of 6 and gradually work up to 14.

21. *Stages of Education.*—All schools under the Wardha Scheme are basic schools and therefore no difference in nomenclature between "primary" and "secondary" classes or stages is made. Primary and secondary education, however, form two well-defined stages each with its own scope, aims and methods. The clear distinction in aims and methods between these stages must be kept in view. This question is discussed at length in the Hadow Report. The Central Advisory Board of Education at its first meeting held in 1935 recommended a revised school organisation consisting of a primary stage of four years, a lower secondary stage of four years and a higher secondary stage of three years. The writers of the Wood-Abbott Report "whole-heartedly commend the general layout of this proposed reconstruction". Indeed every province makes the distinction between primary and secondary or middle education though the dividing line is at the end of the fourth class in some provinces and at the end of the fifth in others. The Committee, however, felt that it was unnecessary to make any recommendation in this connection as the question would need consideration at greater length when the co-ordination of the final form of the Wardha Scheme with higher education is taken up. It was agreed unanimously that transfer to Anglo-vernacular and other schools should be permitted after the completion of the fifth class or about the age of 11 +.

22. *Medium of Instruction.*—The Wardha Scheme lays down that the medium of instruction shall be the mother-tongue, that is, the vernacular of the pupils. The Wood-Abbott Report makes the same recommendation and few will be found to disagree. The Committee unanimously approve, though they are aware that in certain provinces a difficulty might arise as more than one vernacular may be spoken. In making this recommendation the Committee wish to emphasise that the term “vernacular” connotes the “literary” language and not a dialect.

23. *Hindustani.*—The object of including Hindustani as a compulsory subject in the school curriculum is, according to the Zakir Husain Committee, to ensure that all the children educated in the “basic” schools may have a reasonable acquaintance with a common “lingua franca”. That Committee has accordingly recommended that in Hindustani-speaking areas this language should be the mother-tongue but the students as well as the teachers will be required to learn both the scripts so that they may read books written in Urdu as well as in Hindi, and that in non-Hindustani speaking areas, where the provincial language will be the mother-tongue, the study of Hindustani should be compulsory during the 5th and 6th years of school life but the children will have the choice of learning either one or other script. Thus teachers who have to deal with children of both types must know both the scripts. The Committee recognise the desirability of a common language for India which should be Hindustani with both the Urdu and Hindi scripts, though some members believe that the adoption of one common script, the Roman, would considerably simplify teaching procedure and tend to unity among different communities. There is the danger that undue influence might be brought to force children to read in the script other than that of their choice, especially when the number of such children is small. The Committee desire to emphasise that full option should be given to children to choose the script and that provision should be made for teaching them in that script.

24. *English.*—Discussion on the question whether English should be taught in the “basic” schools revealed considerable difference of opinion. Some members of the Committee feel that English should have no place in these schools which are primarily meant for rural areas. The study of English in such schools is educationally unsound. The time taken in its study is out of all proportion to the advantage gained and tends to prevent the formation of a firm foundation of education.

25. On the other hand, some members of the Committee believe that a good grounding in English is essential for higher studies and so long as English remains the medium of instruction in colleges and retains its importance in all phases of Indian life, the study of English must be started at an age earlier than 14. The Wood-Abbott Report, with its emphasis on teaching through the vernacular, admits that “the study of English, at least as an optional subject, may have to be included in the curriculum of some of the lower secondary schools where there is a public demand for it”.

The Committee, however, agree that the demand for English will be met by the possibility of transfer after the 5th class or about the age of 11 + to schools where English is taught and that English should not be included in the curriculum of “basic” Wardha Schools.

26. *Craft and Manual Activities.*—The fundamental principle of the Wardha Scheme is education through productive craft activity. Perhaps

the word "creative" would be preferred to "productive" by educationists as the word "productive" may be and has been read to imply that economic production outweighs educative development. We emphasise that the Wardha Scheme stresses the educative value of craft work. That saleable material will be produced in the higher classes of the basic schools is no objection to the scheme. Indeed unless saleable material is produced the educative possibilities have not been satisfactorily exploited. The income from the sale of such material might well be applied to the upkeep of the school.

27. It is unnecessary to discuss the educative principle of learning by doing. All recent literature emphasises this principle and all schools with any pretence to be up-to-date have adopted it. Indeed the education of children through hand work in its various forms is one of the outstanding features of modern education. The Committee unanimously agree with the principle of educating children through purposeful creative activities which should gradually develop into productive work.

28. To prescribe one basic craft in the lowest classes of a school which children of the age of about 6 may join is educationally unwise. The activities in these classes arise from the child's interests and desires and should not be forced on him by the adult. Any activity which appeals to a child's interest is suitable so long as it "makes a demand on a boy's skill, judgment, sense of observation and power of calculation and combines all or some of these in a constructive effort to achieve an end which he himself wishes to achieve". As the Wood-Abbott Report says, "it is not so much the thing made or done as the integration required in the making or doing, which is of educational value". Dr. Zakir Husain himself emphasises this point in his appendix to "The Activity School", when he says "It is not the attainment of skill but the process of acquiring it that is educative". As the child becomes older his interests change. Many of them become less transitory and can be satisfied through one basic craft in which the pupils should reach a high degree of skill. Such crafts as agriculture, weaving, woodwork, metal work provide facilities for educational development, appeal to the growing child's sense of making and doing something, increase his self-respect since the product of his labour has a market value and tend to remove the false idea that manual work is objectionable.

The Committee therefore are of opinion that in the lower classes (to the age of about 10 plus) there should be no single basic craft but that the various forms of activity should serve as a preparation for, and develop into, a productive basic craft in the higher classes.

29. It naturally follows that in all basic schools, indeed in all primary classes, various kinds of material for handwork must be available. Unless sufficient material is provided, the school cannot be a centre of activity.

30. *The Teacher*.—The most important condition for the success of any educational scheme is the teacher. Revised methods may be proposed, new procedure suggested or a different organisation adopted, yet these will be ineffective and fruitless unless the teachers are able to appreciate and understand the theory leading to the changes and are competent to carry them out so that the desired intention may result. As Dr. Zakir Husain writes in his report, "it is essential that these teachers should have an understanding of the new educational and social ideology inspiring the scheme combined with enthusiasm for working it out".

31. The teacher must therefore be competent to teach to the standard of the Matriculation in the usual school subjects, must be expert in methods of teaching these subjects through craft activities and must be skilled in the processes and technique of certain basic crafts. Without such teachers the Wardha schools cannot succeed and teachers of the type required are practically non-existent at present. To attempt to introduce the scheme over any wide area would invite failure.

32. The pace at which the schools can be established will depend almost entirely on the supply of trained teachers competent to implement the scheme. Hence the Committee agree with the recommendation in the Zakir Husain Report that a reasonably large area should be selected for the experiment and an educational survey of that area should be carried out by the Education Department. Immediate steps should then be taken to train the required number of teachers in the existing normal schools which should be reorganised and restaffed to suit the new system of training. In the meantime all normal schools should be so reorganised and schools should be gradually converted to activity schools as suitable teachers become available. The provision of suitable teachers will be accelerated when pupils having passed through the Wardha schools seek training as teachers, for such pupils will have absorbed the spirit of the teaching and will be skilled in some basic craft.

33. At present the usual qualification for a teacher in a primary school is a pass in the vernacular middle school examination (held after completing an eight-year course) followed by one or sometimes two years training in a normal school. Many primary teachers do not possess even these qualifications whilst a small percentage have passed the Matriculation. This qualification, however, is for primary school purposes little if any better than the vernacular middle qualification as the gain in English often does not compensate for the loss in other ways. Obviously teachers with these qualifications cannot be expected successfully to teach satisfactorily up to a standard as advanced as their own.

34. The Wardha Scheme rightly emphasises the importance of the teacher and in order to start the scheme proposes a short emergency course of one year for specially selected teachers. The complete training course, however, is to cover a period of three years.

35. Before admission to the training college the candidate must have passed the Matriculation examination or have had at least two years' experience after passing the Vernacular Final or equivalent examination. The Committee agree that as the success of the scheme mainly depends upon the teachers it is imperative to prepare competent teachers. Some of the members, however, are apprehensive whether sufficient candidates will be forthcoming to undergo a three years training in return for the meagre salary a primary teacher now receives.

36. Even after the three years course of training, these teachers will hardly be competent to carry out satisfactorily the work in the highest classes of the "basic" schools. The Zakir Husain Committee contemplated the necessity of employing in the higher classes teachers with better academic qualifications on a higher pay and with this view, the Committee entirely agrees.

37. The Committee recommend that effort should be made to increase the supply of competent women teachers. Both the Zakir Husain and the Wood-Abbott Reports point out the need of women teachers especially in

the lower classes. This point was discussed at some length in the Report on the Curriculum of Girls' Primary Schools (Central Advisory Board of Education, 1937) and the Committee wish to emphasise the conclusions stated therein in regard to the need of women teachers and the spheres of possible recruitment. Several members of the Committee pointed out that the present low salaries in some provinces would not attract a suitable type of recruit and that the teachers' social status in the villages was as a rule low. This was not surprising as his salary is frequently lower than that of a menial servant. The Committee endorse the recommendation of the Zakir Husain Committee that the salary of a trained primary school teacher should be Rs. 25 if possible, but in no case less than Rs. 20 per mensem. Efforts should also be made to raise the status of the teacher by giving him on public, semi-public and other occasions the respect his profession deserves.

38. "*Cultural Subjects*".—The Committee discussed whether or not it was possible to teach through the basic craft all subjects to the standard anticipated. There was general agreement that in the lowest classes education can be satisfactorily carried out through activities. In this connection the work at Moga and other schools was cited. But as the child advances in age and reaches the higher classes opportunities for centring his cultural work and intellectual progress on the basic craft become less frequent. Much of the academic work even in the highest class can be correlated with the basic craft, but all aspects of the "cultural" subjects cannot so be treated not even by stretching correlation beyond its legitimate limits. Formal instruction will therefore be necessary to teach certain elements of cultural subjects which cannot naturally be co-ordinated with the basic craft. Dr. Zakir Husain agrees that "the school has to provide for the attainment.....of some passive knowledge. I say this lest we forget that.....not all knowledge comes through our own active experience but through the accumulated experience of generations long past" (The Activity School—Ferriere).

39. *Curriculum*.—The subjects forming the curriculum and the syllabuses of individual subjects were seriously criticised from different points of view. Amongst the points discussed were the length of time allotted to the basic craft, the political tone of parts of the syllabus in Social Studies, the omission of algebra and major games, the ambitious nature of some of the subjects of study, the lack of suitable text-books, and other matters of lesser importance.

40. Dr. Zakir Husain pointed out that the proposed syllabuses were merely tentative and their interpretation depended on the teacher and on the provision of suitable text-books. Experience would show what changes were necessary and the syllabuses would be modified accordingly. The syllabuses published with the Wardha scheme do little more than indicate the nature of the work of the Wardha schools. Necessary details will be incorporated after experience. Indeed the Wardha Scheme advises the appointment in every province of "academic assistants" whose main duty will be to keep the curriculum under constant examination in the light of educational, local and other demands. Details will also be worked out in the normal schools and training colleges whilst the preparation of suitable text-books will be immediately taken in hand.

With this explanation the Committee noted that the curriculum and syllabuses of the Wardha basic schools are not rigid but will be changed as experience necessitates.

41. *Religious Education.*—The absence of all religious teaching from the curriculum was adversely commented on and this question showed fundamental differences of opinion. On the one hand it was contended that if the State makes education compulsory for all, then the State must make provision for religious education. Muslim members pointed out that religious instruction is an essential part of general education and any scheme of compulsory education which excludes religious instruction will be resented by that community.

42. Dr. Zakir Husain had already pointed out that the Wardha scheme makes provision for the teaching of the principles common to all religions in the hope of developing mutual respect and toleration. In Gandhiji's words:—

“We have left out the teaching of religions from the Wardha Scheme of education, because we are afraid that religions, as they are taught and practised today, lead to conflict rather than unity. But on the other hand, I hold that the truths that are common to all religions can and should be taught to all children. These truths cannot be taught through words or through books. The children can learn these truths only through the daily life of the teacher. If the teacher himself lives up to the tenets of truth and justice then alone can the children learn that truth and justice are the basis of all religions”.

43. The majority of members felt that religious teaching was best left to the parents or to the communities concerned, but that the State should permit religious instruction to be given in the school building, out of school hours. After considerable discussion the Committee agreed that the Government should provide facilities for religious teaching, as at present, but was not unanimous whether or not such teaching should be given in or out of school hours. The question of the inclusion of religious instruction in the curriculum is discussed in the Report of the Women's Education Committee of the Central Advisory Board of Education on the curriculum of Girls Primary Schools (1937). The majority of the members are in agreement with the views expressed in para. 11 of that report. Dr. Si. Zia-ud-din Ahmad and Khan Fazl Muhammad Khan, however, desired that religious instruction should be a school subject. The syllabus of studies for Muslim Theology should be prepared by Muslims, taught by Muslims and the State should provide all facilities.

44. *Examinations.*—The Wardha Scheme of education makes no provision for external examinations but emphasises the need of efficient and helpful supervision as contrasted with mere inspection.

45. In regard to examinations the Committee would go even further than the Wardha Scheme anticipates. The Zakir Husain report states that “the purpose of the examination can be served by an administrative check of the work of the schools in a prescribed area, by a sample measurement of the attainment of selected groups of students conducted by the Inspectors of the Education Board”. The Committee feels that even this sample measurement is open to objection and might be omitted. The standard of work in the school should be maintained by the inspecting staff and by local exhibitions of work. Promotion from grade to grade should rest entirely with the school on the results of an internal test. The

papers and work of the pupils and the results of the test should be reviewed by the inspecting officer at the time of his visit. At the end of the school course the school itself can grant a leaving certificate after a final internal examination stating merely that the pupil has satisfactorily completed the course of the basic school. The certificate may be countersigned by the supervisory or inspecting officer after he has reviewed the pupil's work in the final test if an additional check is considered necessary. For pupils who leave the basic schools for other schools about the age of 11 plus after having completed the first five classes a similar leaving certificate will suffice. Admission to these schools should be controlled by their Headmasters who may prescribe any form of test they consider suitable for their purpose.

46. *Finance*.—The Committee did not consider the question of finance as this was outside their terms of reference. They wish, however, to point out that "activity" schools will cost more to run in the beginning than the present type of school and that the rate at which compulsion proceeds and the age to which it is applied are primarily financial questions, the consideration of which must be left to the Provinces.

47. *Conclusions*.—The following is a summary of the main conclusions reached at the meeting of the Committee:—

- (1) The scheme of "basic" education should first be introduced in rural areas.
- (2) The age range for compulsion should be 6 to 14 years, but children can be admitted to the "basic" school at the age of 5.
- (3) Diversion of students from the "basic" school to other kinds of school should be allowed after the 5th class or about the age of 11 plus.
- (4) The medium of instruction should be the vernacular of the pupils.
- (5) A common language for India is desirable. This should be Hindustani with both the Urdu and Hindi scripts. Option should be given to children to choose the script and provision should be made for teaching them in that script. Every teacher should know both scripts, *viz.*, Urdu and Hindi. Some members of the Committee suggest that the adoption of Roman script might prove a solution to the language difficulty and greatly minimise the work of both scholar and teacher.
- (6) The Wardha scheme of basic education is in full agreement with the recommendations made in the Wood-Abbott Report so far as the principle of learning by doing is concerned. This activity should be of many kinds in the lower classes and later should lead to a basic craft the produce from which should be saleable and the proceeds applied to the upkeep of the school.
- (7) Certain elements of cultural subjects, which cannot be correlated with the basic craft, must be taught independently.
- (8) The training of teachers should be reorganised and their status raised.
- (9) No teacher should receive less than Rs. 20 per mensem.

- (10) Efforts should be made to recruit more women teachers and to persuade girls of good education to take up teaching.
- (11) Basic schools should be started only when suitable trained teachers are available.
- (12) The curriculum will need revision in the light of experience.
- (13) English should not be introduced as an optional subject in basic schools.
- (14) The State should provide facilities as at present for every community to give religious teaching, when so desired but not at the cost of the State.
- (15) No external examinations need be held. At the end of the basic school course a leaving certificate based on an internal examination should be given.
- (16) Pupils wishing to join other schools at the end of the 5th class (age 11+) should also be granted a leaving certificate.
- (17) Promotion from class to class will be determined by the school, though the results of the internal examinations should be subject to the supervisors' inspection.

B. G. KHER (*Chairman*).

SYED MAHMUD.

R. S. SHUKLA.

GERTRUDE C. GRIGG.

AMRIT KAUR.

ZIA-UD-DIN AHMAD.

W. H. F. ARMSTRONG.

S. P. MOOKERJEE.

FAZL MUHAMMAD KHAN.

HANSA MEHTA.

J. E. PARKINSON.

On account of his illness, Dr. Zakir Husain has not been able to sign the Report. He has, however, approved it.

APPENDIX I.

The following is a list of papers which were circulated to the members of the Committee:—

1. Resolution passed at the third annual meeting of the Central Advisory Board of Education, held on the 28th January 1938, appointing this Committee.

2. Proceedings of the All-India National Education Conference held at Wardha in October 1937 to consider Gandhiji's scheme of basic education.

3. Report of the Zakir Husain Committee and the proposed syllabus prepared by it.

4. Note by Mr. J. E. Parkinson, C.I.E., Educational Commissioner with the Government of India, on the objections to the Wardha Education Scheme.

5. Note by Khan Fazl Muhammad Khan, Commissioner and Secretary to His Exalted Highness the Nizam's Government, Department of Technical and Vocational Education, on the Wardha Education Scheme with a chart illustrating a possible scheme of re-organisation of education in Indian schools.

6. Note on the action taken, or proposed to be taken, by the Provinces on the Wardha Education Scheme.

7. Resolution passed by the All-India Educational Conference on the Wardha Education Scheme at its thirteenth session held in Calcutta in December 1937.

8. Report of the Madras Teachers' Guild on the Wardha Scheme of Basic Education.

9. Resolution passed by the Indian National Congress at Haripura in February 1938 on national education in India.

10. Resolutions passed at the first meeting of the Central Advisory Board of Education held in December 1935 on educational reconstruction in India.

11. Circular letter to Provincial Governments and Local Administrations No. F. 1-6 (a)/36-C. A. B., dated the 30th April 1936, on the resolutions of the Central Advisory Board of Education on educational reconstruction.

12. Resolutions passed by the Indian Universities' Conference in 1934 on educational reconstruction.

13. Circular letter to Provincial Governments and Local Administrations No. F. 83-1/34-E., dated the 25th January 1935, on educational reconstruction in India.

14. Circular letter to Provincial Governments No. L.-1834, dated the 20th January 1938, on Government recruitment and unemployment.

15. Report on Vocational Education in India by A. Abbott, C.B.E., formerly His Majesty's Chief Inspector of Technical Schools, Board of Education, England, with a section on General Education and Administration by S. H. Wood, M.C., Director of Intelligence, Board of Education, England.

16. Views of the Provincial Governments on the recommendations made in the Wood-Abbott Report.

17. Report on Vocational Education in Hyderabad State by A. Abbott, C.B.E., formerly His Majesty's Chief Inspector of Technical Schools, Board of Education, England.

18. Report of the Sub-Committee for the re-organization of education in the Hyderabad State.

19. Vidya Mandir Scheme—A way to the spread of free and compulsory mass education within a fixed period.

20. Vidya Mandir Syllabus and *Ad Interim* Report of the Syllabus Committee, Central Provinces and Berar.

21. Report on Educational Reconstruction and Vocational Training in the Central Provinces and Berar.

22. Report on Vocational Training in Primary and Secondary Schools and consequent reorganization in Bombay.

23. School Education in Bengal—Resolution No. 1037-Edn., dated the 9th March 1937.

24. Report of the Women's Education Committee of the Central Advisory Board of Education on primary education of girls in India, 1936.

25. Report of the Women's Education Committee of the Central Advisory Board of Education to consider the curriculum of Girls' Primary Schools in India, 1937.

APPENDIX II.

	Age range of compulsion. Years.	
Madras	6—11.	
Bombay	6—11.	
Bengal	6—10.	Under the Bengal Pri- mary Educa- tion Act, 1919.
	6—11.	Under the Bengal (Rural) Primary Edu- cation Act, 1930.
United Provinces	6—11.	
Punjab	6—11.	
Bihar and Orissa	6—10.	
Central Provinces	7—11.	
Assam	6—11.	
Delhi	6—11.	



APPENDIX IV

TO

THE PROCEEDINGS OF THE 5TH MEETING OF THE CENTRAL ADVISORY BOARD OF EDUCATION IN INDIA HELD IN MAY, 1940

Report of the Second Wardha Education
Committee of the Central Advisory Board
of Education, 1939, together with the
decisions of the Board thereon



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PREFACE.

At their meeting held at Simla on May 6th and 7th, 1940, the Central Advisory Board of Education had before them the report of the Committee which they appointed in December 1938, to consider further issues arising in connection with the system of basic education such as its relation to other branches of education and the financial problems implicit in its adoption.

The decisions reached by the Board with regard to the various conclusions and recommendations contained in the Committee's report are set out below.

While, as will be seen, the Board were unable to accept the conclusions and recommendations in their entirety, they felt that the report, read in conjunction with the report of the previous Committee appointed by the Board to consider the Wardha Scheme, might well prove a valuable contribution towards the exploration of a most important problem.

The report is accordingly printed on pages 1—27 following and the main conclusions and recommendations referred to in the next paragraph will be found on pages 7—8.

The Central Advisory Board of Education adopted the conclusions and recommendations Nos. 1, 2, 3, 4, 5, 6 and 9. With regard to the others, *viz.*, Nos. 7 and 8, the Board arrived at the following decisions:—

No. 7.—The Board decided that to implement this recommendation it would be better to strengthen their existing Vernacular Education Committee than to set up a special Committee.

The Vernacular Education Committee was accordingly reconstituted as set out below: it has power to co-opt.

1. Rajkumari Amrit Kaur.
2. The Right Rev. G. D. Barne, C.I.E., O.B.E., V.D., Bishop of Lahore.
3. Mr. R. M. Statham, C.I.E., I.E.S., Director of Public Instruction, Madras.
4. Mr. W. H. F. Armstrong, I.E.S., Director of Public Instruction, Punjab.

5. Dr. Sir Zia-ud-Din Ahmad, C.I.E., Ph.D., D.Sc., M.L.A.
6. Pandit Amaranatha Jha, M.A., Vice-Chancellor, Allahabad University.
7. Mr. J. M. Bottomley, I.E.S., Director of Public Instruction, Bengal.
8. The Educational Commissioner with the Government of India.

No. 8.—While the majority of the members of the Board accepted the view of the Committee, the official members representing the Government of India expressed their inability to commit themselves in any way. The representative of the Legislative Assembly attending the meeting felt himself precluded under existing circumstances from supporting the Committee's recommendation. One or two members, while in favour of the principle that the Central Government should make some contribution, found themselves unable to go as far as the Committee desired.

The Board also decided that—

- (a) a copy of the Report, together with the decisions of the Board in regard thereto, should be forwarded to the Provincial Governments for consideration and such action as they might consider necessary;
- (b) their thanks be expressed to the Chairman and members of the Committee for the great amount of time and care which they had obviously devoted to the preparation of the Report.

For convenience and in order that the Board's attitude towards the system of 'basic' education as a whole may be made clear, the report of the Board's first Committee on the Wardha Scheme which was adopted by the Board without alteration in December 1938, is reprinted as an appendix.

REPORT OF THE SECOND WARDHA EDUCATION COMMITTEE OF THE CENTRAL ADVISORY BOARD OF EDUCATION, 1939.

The Central Advisory Board of Education at its meeting held in January 1938 appointed a Committee under the chairmanship of the Hon'ble Mr. B. G. Kher, Premier and Education Minister, Government of Bombay, to examine the scheme of educational reconstruction incorporated in the Wardha Scheme in the light of the Wood-Abbott Report on General and Vocational Education and other relevant documents, and to make recommendations. This Committee submitted its report to the Board on the 3rd December 1938. During the consideration of this Report, which was generally adopted by the Board, certain issues emerged such as the co-ordination of the 'basic' system with higher education, the ways and means to finance it, etc., which in the opinion of the Board required further examination. With this object in view, the Board appointed another Committee consisting of the following members with powers to co-opt:—

The Hon'ble Mr. B. G. Kher, Premier and Education Minister,
Government of Bombay, *Chairman.*

The Hon'ble Qazi Ataullah Khan, Minister of Education, Gov-
ernment of the North-West Frontier Province.

Rajkumari Amrit Kaur.

Mrs. Hansa Mehta, Parliamentary Secretary for Education to
the Hon'ble the Prime Minister, Bombay.

Dr. Zakir Husain, Principal, Jamia Millia Islamia, Delhi.

Pandit Amaranatha Jha, M.A., Vice-Chancellor, Allahabad Uni-
versity.

Dr. W. A. Jenkins, D.Sc., I.E.S., Director of Public Instruction,
Bengal.

Mr. W. H. F. Armstrong, I.E.S., Director of Public Instruction,
Punjab.

The Educational Commissioner with the Government of India.

The Board also suggested that the Committee should, if possible, visit places where the 'basic education' scheme is in operation.

2. In accordance with the powers conferred on the Committee by the Board, the following were co-opted as additional members:—

The Hon'ble Mr. C. J. Varkey, Minister of Education, Govern-
ment of Madras.

The Hon'ble Pir Illahi Baksh Nawaz Ali, Minister of Education,
Government of Sind.

Mr. J. C. Powell Price, I.E.S., Director of Public Instruction,
United Provinces.

3. The Committee as finally constituted held two meetings; the first in Simla on the 12th and 13th June, and the second at Poona on the 29th October 1939. Mr. Powell Price was unable to attend either meeting and the Hon'ble Mr. Varkey and Dr. Zakir Husain were unable to attend the second meeting. It proved impossible to arrange for the Committee as a whole to visit places where the "basic education" scheme is

in operation, but personal visits were paid by most of the members to some or all of these places.

4. The agenda and papers circulated therewith to the members of the Committee are set out in Appendix I.

A copy of the resolutions passed by the All-India Muslim Educational Conference and of notes on the agenda by the Hon'ble Pir Illahi Baksh, both of which were circulated to members of the Committee, will be found in Appendices II and III, respectively.

5. "*Pre-basic*" education.—The original Wardha Scheme advocated the free and compulsory education of all boys and girls between the ages of 7 and 14, though girls might be withdrawn after the completion of their 12th year if their guardians so desired. The Zakir Husain Committee recognised the importance of providing educational facilities for children below the age of 7 and envisaged the possibility of this being done on a voluntary basis with State help where possible, but did not feel justified in including it as a part of the compulsory scheme in view of financial and other considerations. The report of the first Kher Committee, as adopted by the Central Advisory Board of Education, contemplated the period of compulsory education as extending from the age of 6 to the age of 14 for all children.

The Committee fully recognise the importance in the child's educational life of the years 5—7. During this period the foundation of good habits, mental, moral and physical can be laid and the effects of childish ailments detected and remedied more easily and more effectively than at any later age. They understand that in many provinces at the present time children are admitted to the infants classes of primary schools at about the age of 5 and that parents are often glad to be able to leave their children during the day where they will not only be looked after but will also receive some useful training. They also appreciate the fact that where parents have acquired the habit of sending their children to school at an early age the difficulties of enforcing attendance when the compulsory stage is reached will be considerably reduced. They are accordingly anxious that facilities for education at the 'pre-basic' stage, so far from being reduced, should be widely extended by increasing the number of infants classes in State schools and by encouraging the establishment of efficient 'pre-basic' schools by voluntary agencies. They also suggest that Provincial Governments should set up a few model infants schools where the correlation of Kindergarten instruction with the curriculum of the 'basic' school may be studied and developed. The Committee do not, however, consider that it is practicable at the present stage to lower the minimum age of compulsory attendance below 6 years. To do so would add substantially to the serious financial problems already involved by the 'basic education' scheme and would also assume an adequate supply of properly trained women teachers, since children at this early age should be taught by women and not by men. Such a supply is practically non-existent in India at the present time. Steps should be taken to create it, either by adding special courses in infants teaching to existing training schools or by establishing special institutions for this purpose. The Committee were interested to learn that in certain provinces the possibility of utilising the services of widows in this connection was being explored and believe that this source of recruitment may be further enlarged. In the meantime, however, pending the solution of

the two major problems referred to above the Committee are of opinion that 'pre-basic' education, when provided by the State, should be free but not compulsory.

6. *'Basic' education and its division into two stages.*—A 'basic' school as at present conceived would appear to constitute a unit by itself for children between the ages of 7 and 14. The protagonists of the 'basic education' scheme are rightly insistent that the whole course should be regarded as coherent and consecutive. There is nothing, however, in this conception which conflicts with the view generally accepted by educationists to-day that the mental and physical changes which boys and girls undergo as a rule about the age of 11—12 should be recognised by corresponding adjustments both in the content of the curriculum and in the methods of instruction. Hence arises the need for treating the instruction given before and after this psychological break as forming two well-defined stages, each with its own scope, aims and technique though inspired by the same fundamental aim. It was for this reason that the Central Advisory Board of Education, when formulating a framework of educational organisation at its first meeting in 1935, recommended an organisation consisting of a primary stage, a lower secondary stage, and a higher secondary stage. There is, in fact, nothing novel so far as India is concerned, about the idea of a break at about the age of 11—12, as every province makes a distinction between primary and secondary or middle education, though the dividing line is at the end of the fourth class in some cases and at the end of the fifth in others. Nor is there anything in the general conception of the 'basic education' scheme which is repugnant to the notion that the onset of adolescence should receive recognition by a suitable differentiation in the scope and method of instruction. The principle of 'learning by doing' is equally applicable in the primary and in the post-primary school, only its practical interpretation needs adjustment to the growing powers and changing interests of the children. Moreover, if opportunities are to be provided for children to transfer from 'basic' schools to other forms of post-primary education and if as the Committee contemplate, the 'basic' school is to become the normal type of primary school not only in rural but also in urban areas, where the number desiring such transfers is likely to be much greater, a break in the organisation at about the age of 11—12 will become a matter of normal convenience as well as of educational desirability. It is obviously important that a child, if and when he transfers, should have completed a planned stage in his school career. Apart from those likely to be transferred to other forms of post-primary education—and they will be a comparatively small minority—there is an equally strong argument in the case of the remainder for a break between the primary and post-primary stages. The organisation of practical activities and their correlation with other subjects will be more effective and less expensive at the post-primary stage, from the point of view both of grading pupils according to their intelligence and of economising staff, accommodation and equipment, wherever it is possible to provide a central school to serve a number of contributory primary schools. This will be possible as a rule in towns and in those rural areas where villages are fairly large and close together. Finally, boys and girls, who under satisfactory arrangements may be educated together during the primary stage, will have to be taught separately subsequently. Provision for their post-primary education will be much facilitated if they can be collected in sufficient numbers into 'basic' post-primary central schools.

After serious consideration of this most important problem the Committee reached the conclusion that the divergence between those who regard the 'basic' course as one and indivisible and those who realise the need for a break between about the age of 11—12 is more apparent than real. For those children—and they will be the great majority—who remain to the end of their school career under the 'basic' system, there will be no break in the continuity or aim of the instruction, and such a break as there may be will be only a transference from one 'basic' school to another. For those who pass to other forms of post-primary instruction, the effects of the change will be minimised if the curriculum of the institutions in question is closely related, as the Committee recommend, to that of the 'basic' school. The Committee accordingly are agreed that 'basic' education should comprise a correlated course of eight years from the age of 6 to the age of 14, which for the sake of convenience should be divided into two stages—the first stage covering a period of 5 years and the second stage 3 years. The first stage should be called "junior" and the second stage "senior". Moreover, the curriculum for all schools beyond the 'junior basic' stage, whether 'senior basic' or other forms of post-primary education, should develop logically from that of the 'junior basic' school.

7. *Transfer of children from 'basic' schools to other schools.*—The Committee contemplate that the 'basic' school will be the normal type of school attended by all children up to the end of the 'junior' stage. They realise, however, that after that stage certain children, and particularly those who may be intended for a university career, will transfer to schools of a different type from the 'senior basic' school. The Committee feel that arrangements should be made for such transfers in the case of children who have completed the fifth grade in 'basic' schools and shown the necessary aptitude for benefiting by a course of higher education. Without desiring to prescribe in any detail the nature of such a course, the Committee lay emphasis on the fact that the curriculum should derive naturally from that of the 'junior basic' school, but should vary in its later stages to meet both the differing aptitudes of the pupils and the requirements of the occupations they intend to enter on leaving school. These variant forms of higher education should extend over a minimum period of 5 years, with a further course of more advanced work for those who intend to proceed to a university or enter occupations for which a more prolonged course of study is regarded as essential. It may be convenient for such diversified courses to be given in separate institutions and the possibility of developing Technical High Schools in or in connection with existing Technical Colleges, as forms of higher education alternative to that provided by the normal high school, should receive careful consideration. It is particularly important that subject to the over-riding right of the parent to make the final decision, the school to which a child should go at the conclusion of the 'junior basic' stage should be determined primarily by the special aptitudes he has displayed during this stage. In any area where compulsory education up to 14 is in force, a child will remain under obligation to attend school to that age whatever the type of school he may be attending.

While those children whose general intelligence or future careers make it obvious that they cannot complete their education in a 'senior basic' school, should be transferred at the end of the fifth class wherever possible, provision must also be made for those children who wish to

continue their education after completing the course at the 'senior basic' school. Special arrangements must be made so that such children may receive special tuition in those subjects, *e.g.*, English which do not form part of the curriculum of the 'senior basic' school.

As regards the relation of the post primary schools other than the 'senior basic' with university courses, the Committee did not consider it desirable to go into details, as it is for the universities to prescribe their own courses. They feel, however, that it is by no means impossible for the responsible educational authorities to relate the instruction provided in such schools to that of the 'junior basic' school at one end and of the university at the other.

8. *Parallel courses of instruction for girls in the upper classes of 'basic' schools.*—The Wardha Scheme, while allowing girls to be withdrawn from 'basic' schools after the completion of their 12th year if their guardians so desire, clearly did not contemplate that the education of all girls would cease at this stage. The Central Advisory Board of Education assume that compulsion up to the age of 14, if and when introduced, will apply to girls as well as to boys. A suitably modified syllabus will therefore be necessary for those girls who continue their education in 'senior basic' schools. The Committee accordingly recommend that courses should be framed specially suited to the aptitudes and requirements of older girls and should include such subjects as cookery, laundrywork, needlework, homecrafts, the care of children, first aid, etc., the rest of the instruction being correlated with these practical activities in accordance with the general principles of the 'basic education' scheme.

9. *Appointment of a standing committee to watch educational developments.*—Provinces are now embarking on new educational experiments and the system of 'basic education', which many of them are introducing, is still in the experimental stage. It will be advantageous if the results of all these experiments are watched and co-ordinated by some central body. The Committee, therefore, recommend that a standing committee of the Central Advisory Board of Education be appointed to survey the general progress of educational developments in all the provinces, with special reference to 'basic' education, and to make recommendations to the Board for necessary action from time to time. This standing committee should contain a representative of the Hindustani Talimi Sangh.

10. *Central Bureau of Information.*—The syllabus outlined in the Zakir Husain Report is admittedly tentative and is likely to require adjustment in the light of local conditions. The interpretation of the syllabus in this connexion, the extent to which a particular topic or craft is to be introduced and the nature of the incidental information to be given to children at any given age are problems which require to be carefully handled. The Committee considered whether any organisation such as a central bureau, through or by which these and similar problems can be elucidated, should be set up, but came to the conclusion that as this was essentially a matter for local decision it was not necessary to create a central bureau at this stage.

11. *Ways and means to finance 'basic' education.*—The framers of the original Wardha Scheme hoped that while such education during the earlier stages might not be productive yet for the whole period of seven years it would be self-supporting. The Wardha Conference which met in 1937 to consider this scheme was not convinced that

it could or should be made self-supporting although it considered that it would gradually be able to cover the remuneration of teachers. The Zakir Husain Committee also doubted whether such education could be made entirely self-supporting and while expressing the opinion that 'basic' education should cover the major portion of its running expenses, stated that all other educational expenditure, *e.g.*, on buildings, equipment, etc., must be met from other sources, public and private. The Committee of the Central Advisory Board of Education appointed in 1938 to consider this scheme also pointed out that 'activity' schools would cost more to run in the beginning than the present type of school. It may now be accepted that no school, 'basic' or otherwise, which devotes itself to its proper function is likely to be an entirely self-supporting unit. This, however, is no reason why the marketable articles it produces should not be sold as advantageously as possible. After this and other possible sources of income have been fully explored, the balance of the cost of providing a compulsory system of education, which must be free, will have to be met from public funds.

The provision of such education as is necessary for its own stability and the well-being of its citizens is a fundamental responsibility of the democratic State—a responsibility which should be divided equitably among those authorities which are concerned with educational administration. In countries like England, about 50 per cent of educational expenditure comes from the Central Government and the rest is found from local sources. In India, the authorities concerned are the Central Government, the Provincial Governments and the local bodies entrusted with educational powers. Each of these authorities must contribute their share of the net cost of education, *i.e.*, the total cost after receipts from fees, voluntary contributions and the sale of articles made in school have been deducted. Apart from this general consideration the Committee are satisfied from figures submitted to them that the cost of introducing a free and compulsory system of 'basic' education between the ages of 6 and 14 is beyond the existing financial capacity of any provincial Government or local body, a minimum estimate of the net cost being Rs. 2 per head of population per annum. As they are convinced that the future of India must depend very largely on such a system being introduced without delay, the Committee have no alternative but to recommend that the Central Government should contribute not less than half the approved net expenditure of a Provincial Government on this particular service. Such a contribution would naturally be contingent on the Provincial Government (a) raising the remaining sum required from its own resources (b) undertaking to pay an agreed minimum scale of salaries to its teachers and (c) satisfying the Central Government that the amount is spent on free and compulsory education. The Committee further suggest that in order to lighten the immediate burden of the non-recurring expenditure required to bring the scheme into operation the cost of all sites, buildings, equipment, etc., exceeding Rs. 5,000 for any single item should be met from loan.

12. *Disposal of the produce of schools.*—The 'basic education' scheme centres round a productive basic craft. Means will have to be devised for the disposal of the marketable articles thereby produced. An economical method of marketing is essential, and as this is beyond the scope of any individual school, it will only be possible if a central agency in each province undertakes this work. The Committee do not mean by

this that there should be only one central depot in each province for collecting and selling articles produced at school but that the Provincial Government in each case should undertake direct responsibility for this organisation.

13. *Resolutions of the All-India Muslim Educational Conference.*—The Committee also gave careful consideration to the resolutions submitted on behalf of the All-India Muslim Educational Conference and were gratified to find that on all major educational issues there was a substantial measure of agreement between the decisions of the Conference and their own conclusions.

14. *Main conclusions.*—The following is a summary of the Committee's main conclusions:—

- (1) That while the provision of 'pre-basic' education in Nursery and Infants schools and classes is highly desirable, it is not practicable at this stage, in view of the lack both of money and of trained women teachers, to advocate its introduction on a compulsory basis. Provincial Governments should aim in the first place (a) at providing model Infants and Nursery Schools in suitable centres, (b) at increasing the supply of properly trained infants teachers, who should be women, (c) at encouraging the enrolment in 'basic' schools of children below the minimum age for compulsory attendance and (d) at stimulating the provision by voluntary agencies of efficient 'pre-basic' schools.
- (2) That 'basic' education should comprise a course of eight years from the age of 6 to 14 years and that this course while preserving its essential unity should consist of two stages—the first stage, the 'junior' stage, covering a period of 5 years and the second stage, the 'senior', 3 years.
- (3) That the transfer of children from the 'basic' school to other form of post-primary education should be allowed after the 5th grade, *i.e.*, at the conclusion of the 'junior basic' stage.
- (4) That the various types of post primary school (other than the "senior basic" school) to which suitable children may be transferred at the end of the 'junior basic' stage should provide a variety of courses extending over a period of at least five years after the age of 11. These courses, while preserving an essentially cultural character, should be designed to prepare pupils for entry to Industrial and Commercial occupations as well as to Universities.
- (5) That special arrangements should be made in these schools for assimilating pupils who decide to continue their education after completing the full course in the 'basic' school, *i.e.*, after reaching the 8th class.
- (6) That suitable courses should be framed for girls attending 'senior basic' schools, which should include such subjects as cookery, laundry work, needle work, homecrafts, the care of children and first aid, the remainder of the instruction to be correlated with this course of domestic science in accordance with the general principles of the 'basic education' scheme.
- (7) That a standing committee of the Central Advisory Board of Education should be appointed to watch new educational

experiments carried on in the provinces as well as the progress of educational developments generally, with special reference to 'basic' education, and to make recommendations to the Board for necessary action. There should be a representative of the Hindustani Talimi Sangh on this Committee.

- (8) That subject to such conditions as are set out in the report the Central Government should contribute not less than half the amount of the approved net recurring expenditure on 'basic' education in each province, the balance to be found by the Provincial Government and the local bodies entrusted by it with the administration of compulsory education. For capital expenditure on buildings, equipment, etc., a loan system should be adopted.
- (9) That a central agency should be established in each province for the disposal of marketable articles produced in schools.

B. G. KHER (*Chairman*),

Q. ATAULLAH.

AMRIT KAUR.

HANSA MEHTA.

ZAKIR HUSAIN.

AMARANATHA JHA.

W. A. JENKINS.

W. H. F. ARMSTRONG.

JOHN SARGENT.

J. C. POWELL-PRICE.

PIR ILLAHI BAKSH.

C. J. VARKEY.

NOTE OF DISSENT BY MR. J. C. POWELL-PRICE.

While agreeing with the main conclusions of the Committee, I am unable to subscribe to the theory that Pre-Basic Education should not be the concern of Government. In India there is only one agency which can be entrusted with elementary education and that is Government. The Infants class is an integral part of primary education and should in no case be separated. The nursery school is a totally different proposition and it only leads to confusion to class Infant and Nursery classes together. I cannot, therefore, agree with conclusion No. 1.

APPENDIX I.

(1) AGENDA.

1. To consider whether compulsion should be introduced from the age of 6 to 11 years in the first stage or from the age of 7 to 14 without any preliminary stage: in this connexion to consider whether in the event of the principle of compulsion applying up to the upper age limit of 14 years, and a pupil of a "basic" school being transferred to another type of school at the age of 11, this pupil should be subject to compulsory attendance at that school until he attains the age of 14.

2. To consider what entire educational system should be aimed at in a province, what should be the aims, not inconsistent with the above general aim, for complete "basic" education for children aged from 7 to 14 years, or separately from 6 to 11 and 12 to 14 years and how far these should be complete in themselves and how far only a step towards the higher stages.

3. To consider the question of the co-ordination of the Wardha Scheme with higher education.

4. To consider the desirability of the division of the "basic" school into primary and upper primary schools or stages and the examination of the curriculum in the light of this possible division.

5. To consider the question of the transfer of children from the "basic" school at the age of 11 plus to other schools.

6. To consider what type of schools for higher education should be set up for those pupils who leave the "basic" schools at the end of five years (age 11+) and what should be the conditions, if any, for the admission of such pupils to these schools, and what should be the difference in the curriculum of these two types of schools.

7. To consider what type of secondary (lower and higher) schools should be established to serve the needs of pupils who may join them after completing the full term of "basic" education.

8. To consider what should be the duration and the educational content of these "post-basic" schools.

9. To consider what vocational specialisation may be suitably provided in these schools on the basis of regional and occupational characteristics of their location.

10. To consider the desirability of providing for parallel courses of instruction for girls in the upper classes of "basic" schools.

11. To consider what relation the "post basic" schools should have with the university courses.

12. To consider the question of the provision of "pre-basic" education schools and the syllabus for the same.

13. To consider the question of the training of nursery school teachers and the recruitment of more women teachers generally.

14. To consider the question of ways and means to finance the Wardha Scheme.

15. To consider whether it is desirable or practicable for the State to finance "post-basic" and college education.

16. To consider the desirability of establishing a Board to co-ordinate the work of "basic" education undertaken as an experiment or otherwise in various provinces of the country.

17. To consider the desirability of starting a central bureau to supply uniform literature on the topics included in the curriculum of "basic" schools.

18. To consider the question of the disposal of the produce of children's activities.

(2) NOTE ON THE ACTION TAKEN, OR PROPOSED TO BE TAKEN, BY THE PROVINCIAL GOVERNMENTS ON THE WARDHA EDUCATION SCHEME.

While considering the Report of its Committee on the Wardha Education Scheme at its last annual meeting held in December 1938, the Central Advisory Board of Education felt that certain points such as the co-ordination of this scheme with higher education, the ways and means to finance it, etc., required further consideration and appointed another Committee to examine these and any other matters arising out of the Wardha Scheme. It also suggested that the Committee, if possible, should visit places where this scheme is already in operation. The provincial authorities were requested to supply information as to any schemes or other material which might be useful to the Committee in considering the questions referred to them and to suggest schools within their jurisdiction, if any, where the Wardha Scheme had been in operation for a sufficiently long time to justify a visit by the Committee. The information received from them is as follows:—

Madras.—There is no recognised school in this province in which the Wardha Scheme has been in operation.

Bombay.—The Government of Bombay have sanctioned a scheme to open about 100 "basic" schools from June 1939,—60 in four compact areas and 40 in isolated places. There is, however, one school at Thamna in the Kaira district which has been working on the lines of the Wardha Scheme for some 8 months. This school is working under the supervision of one Mr. Narharibhai Parikh of the Sabarmati Ashram, Ahmedabad.

The Government of Bombay have further expressed the following views as regards certain matters connected with the Wardha Scheme:—

- (a) In this province there are infants classes in all primary schools where children are sent at the age of 5 or even 4. So long as these classes are maintained, it will not be possible to refuse admission to such children. In rural areas people regard such classes as a kind of creche and under present circumstances, it is desirable to provide some useful occupation for children of this age.
- (b) The general trend seems to be in favour of co-education in "basic" schools up to the age of 11 *plus*, girls to be allowed to drop out at about 12 years of age. This does not mean that all girls will drop out and a suitably modified optional syllabus will be necessary for those girls who continue their education in "basic" schools after this stage.
- (c) The Wardha Educational Committee of the Central Advisory Board of Education has suggested various forms of activity

serving as a preparation for, and developing into, a productive basic craft in higher classes. Suggestions are invited with regard to the disposal of the marketable articles thereby produced.

- (d) The syllabus outlined in the Zakir Husain report is admittedly tentative and is likely to require adjustment in the light of local conditions. The interpretation of the syllabus in this connection, the extent to which a particular topic or craft is to be introduced and the nature of the incidental information to be given to children at any given age are problems which require to be carefully handled and some organisation such as a central bureau through or by which these and similar problems can be cleared up will be a great advantage. A Board to co-ordinate the work of basic education, undertaken as an experiment or otherwise, is also desirable in the various provinces.

Bengal.—This province has not as yet started any schools on the Wardha Scheme nor does it contemplate doing so in the near future.

United Provinces.—A committee appointed by the Provincial Government has submitted an interim report recommending the adoption of the Wardha Scheme with certain modifications. A Basic Training College for Men was accordingly started in August 1938 at Allahabad where graduates are being trained in the "basic" system of education. An experimental "basic" school consisting of classes I and II, where the actual system is being worked out, has been attached to the College. A Basic Training College for Women was also started in September 1938 and has been placed under the charge of the Principal of the Basic Training College for Men.

In January, 1939, two teachers from each district board were sent to the Basic Training College to undergo a three months' refresher course in the 'basic' system of education. These courses have now been finished and the Government have started refresher courses from the 1st May for about three months at the headquarters of the seven Inspectorial districts in the province where primary school teachers from district and municipal boards are undergoing training in the methods of "basic" education. It is proposed to have 250 teachers trained at each centre on these lines by graduates turned out from the Basic Training College under the guidance of a member of the staff of the Basic Training College. These teachers will finish their training by the 15th of July and will be sent back to their districts to open at least 30 schools in each district board and at least 5 schools in each municipal board. These schools will be called "basic" schools.

From August 1, another refresher course will be started in the same way for three months and the teachers who attend the course will be required to open another 35 schools. A further course on similar lines will commence in November. In February another course will be run to open class II in some of the above "basic" schools from July 1940. The teachers in their refresher courses will be trained in the principles of "basic" education, general science, civics, handwork including card board work, bookcrafts, spinning and gardening.

Punjab.—There are no "basic" schools in this province. A scheme has, however, been drawn up embodying certain features of the Wardha Scheme.

Bihar.—The Patna Training School has turned out one emergency batch of Wardha Scheme teachers; it begins with a second batch in June. The first emergency batch of teachers started work in schools at Brindaban, near Bettiah, North Bihar, in April 1939. There are 35 “basic” schools in the area.

The Director of Public Instruction, Bihar, has further expressed the following views as regards certain matters connected with the Wardha Scheme:—

- (a) Compulsion should be introduced from seven to fourteen years without any preliminary stage.
- (b) Children may branch off to other schools at the age of 12, or after completing the fifth grade of the “basic” school.
- (c) A sub-committee has been appointed to work out the cost of the Wardha Scheme. It has not yet submitted its report.
- (d) No special training for nursery school teachers is envisaged so far. With the general impetus given to girls’ education, a steady supply of women teachers may be anticipated.

Central Provinces.—With the object of implementing the Provincial Government’s resolution accepting the syllabus prepared by the Zakir Husain Committee (*viz.*, the ‘official’ Wardha syllabus), it is proposed to introduce the syllabus in primary schools in a compact area in the Wardha district in the first instance and in the light of experience gained to extend the working of the syllabus to primary schools throughout the province. As regards the training of teachers it is considered necessary that not only primary school teachers but also the staff of normal schools in the province should be trained in the Wardha syllabus. A programme with this object in view has accordingly been drawn up and will be in operation at the Vidya Mandir Training School, Wardha, from the 15th April 1939 to the 30th April 1940. This Training School has already primary classes both in Hindi and Marathi, which with some extension on the Hindi side, can serve as practising classes for the Wardha District Council teachers (under training) while the Wardha District Council teachers themselves will constitute practising classes for the Government secondary and normal school teachers under training. As these teachers will be drafted for training in batches and as the courses will be concentrated in short terms of about 5 months each, the existing Vidya Mandir Training School and Practising School staff will need to be strengthened. It will also be necessary to provide additional staff of a sufficiently high calibre and academic status for the retraining of Government normal school staff. In order to release the Government normal school staff for this training, it is proposed to suspend formation of the 1st year classes in Government normal schools throughout the province for 1939-40 only. The resultant saving in stipends, contingencies, etc., in Government normal schools will counterbalance the expenditure involved in the proposed scheme of the Wardha syllabus training at the Vidya Mandir Training Institute.

There are at present 44 schools maintained by the District Council in the Wardha District of the province where the Wardha Scheme has been in operation since the 1st of January 1939.

Assam.—As an experimental measure the provincial Government have provided in the current year’s budget a sum of Rs. 1,000 to encourage the study of Hindustani and also Rs. 1,200 for the training of teachers of

“basic” schools under the Wardha Scheme. It is proposed to appoint a committee, if necessary, to consider the whole question in due course.

North-West Frontier Province.—The Provincial Government have not, so far, been able to introduce the Wardha Scheme in any school in this province. It is proposed to send four teachers during the current year to undergo training at the Jamia Millia, Delhi, and, on their return, to post them to two or three specially selected schools in order to give this new experiment a trial. Last year, a district inspector, a headmaster of a high school and two teachers of the Peshawar Training School for men were sent to Wardha for a fortnight to see the scheme in operation. All of them submitted reports on their return in which they advocated the introduction of the scheme. The Provincial Government, however, could not do so at the moment because of the lack of teachers trained in the new system and also because of certain other difficulties. It is, however, proposed to introduce the scheme in this province as early as possible.

Sind.—The Wardha Scheme has not so far been tried anywhere in this province. A committee of educational experts is shortly to be appointed by the Provincial Government to consider all educational schemes including the Wardha Scheme, and to evolve a scheme which will suit Sind conditions. As regards the financing of the Wardha Scheme, it is stated that this scheme even on the basis of a seven-year duration (ages 7 to 14) and not an eight-year duration (ages 6 to 14) as recommended by the Committee appointed by the Central Advisory Board of Education will make the Government of Sind responsible for the “basic” education of 4 lakhs of children in any normal year after the introduction of compulsion throughout the province. In view of the extra cost of an education based on an activity curriculum and of the large number of teachers of a new type and the three-year course of training which the Wardha Scheme contemplates, it is estimated that the cost of education per child under the Wardha Scheme will be not less than Rs. 25 annually. The annual cost under present condition is Rs. 23. With 4 lakhs of children between the ages of 7 and 14 in Sind, the annual total cost for “basic” education alone will be over one crore of rupees. This expenditure is beyond the present financial resources of the province. In view of this the education department of Sind will favour the evolution of its own scheme of education which, while achieving the necessary reorientation in the light of some of the basic principles of the Wardha Scheme, will keep the expense of the new undertaking within attainable limits. Till the contemplated provincial reorganisation committee has investigated this problem, it cannot be indicated with any degree of finality how the new scheme will be financed. But if vastly increased expense is called for, as is certain, the following measures (some or all) are suggested to finance it:—

- (a) Substantial annual grant from the Government of India, particularly to poor and backward provinces like Sind.
- (b) An education cess, an employment tax, or some other form of levy to be earmarked specially for education.
- (c) Donation of lands and buildings from charitable individuals and institutions on the lines of the Vidya Mandir Scheme.
- (d) Sale of articles of marketable value produced by pupils in the higher stages of “basic” education.

- (e) Introduction of compulsion up to the age of 11, and leaving the later stages of "basic" education to be worked on a voluntary basis by private agencies under a system of grants and Government inspection.
- (f) Reduction of expenses by means of cheaper designs of school buildings and equipment, by utilising, when possible, the community or religious houses as schools, by having part-time schools, etc.
- (g) Leaving higher education to private effort, the State spending only the minimum on organisation, inspection, etc.
- (h) Conscription of the educated youth of the province for a year or two in each case for service in the "basic" schools.

As regards the training of nursery school teachers and the recruitment of more women teachers generally, it is stated that in view of the consensus of opinion favouring the age-range of 7—14 for "basic" education, it will be necessary to start nursery schools in all the provinces. The education department of Sind considers that as much of the activity in these schools will be in the nature of play and educative entertainment, a simple course of training extending over a few months will meet the situation, and this should be supplemented by the issue of suitable literature for the teachers from time to time and by the occasional holding of refresher courses. Educated girls might be encouraged to start nursery schools in their own homes or in public gardens or in groves of trees, and so on. There is also another way in which recruitment of more women teachers would be made possible. The last two years of "basic" education for girls when they are between 12 and 14 years of age should be so arranged as to give them an idea of the methods and spirit of nursery schools and to leave them free by rotation to go and work in the nursery schools as part of their "basic" education. It is considered that under this arrangement a large number of women teachers for nursery schools will ultimately be found who will be already conversant with the spirit of "basic" education and likely therefore to prepare the children from the ages of 4 to 6 for eventful admission to "basic" schools.

Orissa.—"Basic" schools in this province will start work from the 1st January 1940. A training school for preparing teachers of these "basic" schools will start on the 1st June 1939.

2. As regards the question of visits of the Committee, the Director of Public Instruction, United Provinces, has stated that this year the schools will only have class I teaching under the new system and there will not, therefore, be much for the Committee to see in that province. He is of opinion that members of the Committee will obtain a better insight into the way the Wardha Scheme works if they visit the demonstration school in the Basic Training College at Allahabad at the end of July or in August. Methods of training, or rather "reconditioning", primary school teachers may also be seen at any of the centres in the Inspectorial districts which will also have a demonstration school attached. In their case, however, it will be merely a demonstration school as a practising school is impossible owing to the large numbers involved. The school at the Basic Training College, Allahabad, will however be a practising school.

The Director of Public Instruction, Central Provinces, has suggested that the Committee might visit some of the 44 schools maintained by

the District Council in the Wardha district where the Scheme has been functioning since the 1st January 1939.

The Director of Public Instruction, Bombay, suggests a visit to the school at Thamna in the Kaira District which has been working on the lines of the Wardha Scheme for about 8 months.

The Director of Public Instruction, Bihar, has suggested that the Patna Training School may be worth visiting and that the "basic" schools started at Brindaban may also be visited by the Committee.

3. Apart from the information supplied by the provinces, there is a training school attached to the Jamia Millia Islamia, Delhi, which provides for the training of teachers for "basic" schools.

(3) SUMMARY OF THE PROCEEDINGS OF THE FOURTH ANNUAL MEETING OF THE CENTRAL ADVISORY BOARD OF EDUCATION HELD IN NEW DELHI ON THE 3RD DECEMBER 1938, REGARDING THE WARDHA EDUCATION SCHEME.

In January 1938, the Central Advisory Board of Education appointed a Sub-Committee under the chairmanship of the Hon'ble Mr. B. G. Kher, Premier and Education Minister, Government of Bombay, to examine the scheme of educational reconstruction incorporated in the Wardha scheme, to consider this in the light of the Wood-Abbott Report on General and Vocational Education in India and other relevant documents and to make recommendations. The Sub-Committee submitted its report to the Board on the 3rd December 1938. Its main recommendations were—

- (a) The scheme of "basic" education should first be introduced in rural areas.
- (b) The age range for compulsion should be 6 to 14 years, but children can be admitted to the "basic" school at the age of 5.
- (c) Diversion of students from the "basic" school to other kinds of school should be allowed after the 5th class or about the age of 11 plus.
- (d) The medium of instruction should be the vernacular of the pupils.
- (e) A common language for India is desirable. This should be Hindustani with both the Urdu and Hindi scripts. Option should be given to children to choose the script and provision should be made for teaching them in that script. Every teacher should know both scripts, *viz.*, Urdu and Hindi. Some members of the Committee suggest that the adoption of Roman script might prove a solution to the language difficulty and greatly minimise the work of both scholar and teacher.
- (f) The Wardha scheme of "basic" education is in full agreement with the recommendations made in the Wood-Abbott Report so far as the principle of learning by doing is concerned. This activity should be of many kinds in the lower classes and later should lead to a basic craft the produce from which should be saleable and the proceeds applied to the upkeep of the school.

- (g) Certain elements of cultural subjects which cannot be correlated with the basic craft, must be taught independently.
- (h) The training of teachers should be reorganised and their status raised.
- (i) No teacher should receive less than Rs. 20 per mensem.
- (j) Efforts should be made to recruit more women teachers and to persuade girls of good education to take up teaching.
- (k) "Basic" schools should be started only when suitable trained teachers are available.
- (l) The curriculum will need revision in the light of experience.
- (m) English should not be introduced as an optional subject in "basic" schools.
- (n) The State should provide facilities as at present for every community to give religious teaching, when so desired but not at the cost of the State.
- (o) No external examinations need be held. At the end of the "basic" school course a leaving certificate based on an internal examination should be given.
- (p) Pupils wishing to join other schools at the end of the 5th class (age 11+) should also be granted a leaving certificate.
- (q) Promotion from class to class will be determined by the school, though the results of the internal examinations should be subject to the supervisors' inspection.

2. The Board considered these recommendations at its meeting held on the 3rd December 1938. As regards the recommendation that the scheme of "basic" education should first be introduced in rural areas, the question was raised whether it would not be easier to control and watch this experimental scheme in municipalities rather than in the countryside. But as the real basis of the scheme was to attack illiteracy which existed to a much greater extent in rural than in urban areas and as the proposed curriculum was designed mainly for rural schools, the Board endorsed the recommendation of its Sub-Committee.

3. The Board next considered the recommendation that the age range for compulsion should be 6 to 14 years though children could be admitted to the "basic" school at the age of 5. It realised the difficulty of keeping children at school after they became really productive as their retention at school after the age of 11 up to 14 would impose a severe burden on those parents who belonged to the labouring classes and would expect their children to be earning at that age. It was suggested that in the present circumstances, compulsion should be started with the age limits of 6 to 11 in the first instance, the upper limit to be raised later to 12, 13 or 14. The general feeling however was that, however great the practical difficulties might be, the age range for compulsion from 6 to 14 years as recommended by the Sub-Committee should be regarded as the ultimate objective to be reached by stages.

4. The Board then took up the recommendation of the Sub-Committee that transfer of pupils from the "basic" school to other kinds of school should be allowed after the 5th class or about the age of 11 plus. As it was quite possible that certain children in these "basic" schools might

wish to attend a different type of school, for instance a school in which English was taught, the Board felt that this recommendation from the educational point of view was sound.

5. A suggestion was made that the mother tongue of the pupils, *i.e.*, the language which they normally spoke in their homes, should be the medium of instruction. It was felt however that such a course would lead to considerable practical difficulties on account of the presence of several dialects in the same area, and that if the mother tongue were used as the medium of instruction, a large number of text-books in various dialects would be necessary. Again, where one school might give instruction in one dialect and another in the same area in a different dialect, people would not be able to understand each other. The Board did not favour the suggestion of making the various local dialects of the pupils the media of instruction, and recommended that whatever the language used as the medium of instruction, it should be a literary language.

6. The Board then considered the recommendation relating to a common language for India which should be Hindustani. It was pointed out that the introduction of Hindustani as a compulsory subject in the provinces where Hindi and Urdu were generally spoken might be possible but that its introduction in those provinces where it was neither spoken nor understood would be difficult. Another difficulty, which was urged, was that several provinces had already a number of different languages spoken within their jurisdiction, and the introduction of an alien language (Hindustani) as a compulsory subject in those provinces would further add to their language difficulties. It was also stated that it would be difficult to obtain a sufficient number of teachers who could teach effectively in a language which was foreign to them. On the other hand, it was argued that if there were no common language like Hindustani, intercourse between the provinces would not be possible. Another suggestion was that there should be not only a common language for the whole of India but a common script also, *viz.*, Roman. The Board recognised the advantage of having a common language for the whole of India and the general feeling was that Hindustani should be this common language, and that in the provinces where it was not spoken, it should be introduced in schools as a second language. After a general discussion, the Board decided that when forwarding copies of the report of its Sub-Committee to the provincial Governments, these difficulties should be brought to their notice.

7. The Board observed that primary teachers were at present receiving very low pay in various provinces. It felt that a pay of less than Rs. 20 per mensem was likely to affect the success of the Wardha Scheme and wished to emphasise that no trained teacher should receive less than Rs. 20 a month as recommended by its Sub-Committee. In order to induce more women to take up teaching, it was suggested that higher salaries should be offered to women than to men. The Board, however, felt that the recommendation of the Sub-Committee as it stood was sufficient.

8. With regard to the recommendation of the Sub-Committee that English should not be introduced even as an optional subject in the "basic" schools, a fear was expressed that if English were not taught in these "basic" schools, other schools might follow suit so that a child who wished to learn English would not be able to do so. The Board,

however, considered that the demand for English would be met by the possibility of transfer after the 5th class or about the age of 11 plus to schools where English was taught as recommended by the Sub-Committee.

9. In the course of discussion on the recommendation of the Sub-Committee that no external examination need be held but that at the end of the "basic" school course a leaving certificate based on an internal examination should be given, it was pointed out that no system of internal examination would ever be satisfactory for the purpose of admission to other schools. But as it was open to the authorities of other schools, to which the pupils of the "basic" schools might seek admission, to prescribe any form of test they considered suitable, the Board approved the recommendation of the Sub-Committee.

10. The Board thus generally approved all the recommendations made in the Report of its Sub-Committee, and resolved that a copy of the Report, together with a summary of the discussion, should be forwarded to the provincial Governments for consideration and such action as they might consider necessary.

11. The Sub-Committee did not consider the question of financing the Wardha Scheme as this was outside its terms of reference, nor did it make any recommendation as regards the co-ordination of this scheme with higher education. To examine these questions of finance and co-ordination and certain other matters arising out of the Wardha Scheme, the Board appointed another Sub-Committee consisting of the following members, with powers to co-opt:—

1. The Hon'ble Mr. B. G. Kher, Premier and Education Minister, Government of Bombay, *Chairman*.
2. The Hon'ble Qazi Ataullah Khan, Minister of Education, Government of the North-West Frontier Province.
3. Rajkumari Amrit Kaur.
4. Mrs. Hansa Mehta, Parliamentary Secretary for Education to the Hon'ble the Prime Minister, Bombay.
5. Dr. Zakir Husain, Principal, Jamia Millia Islamia, Delhi.
6. Pandit Amaranatha Jha, M.A., Vice-Chancellor, Allahabad University.
7. Dr. W. A. Jenkins, I.E.S., Director of Public Instruction, Bengal.
8. Mr. W. H. F. Armstrong, I.E.S., Director of Public Instruction, Punjab.
9. The Educational Commissioner with the Government of India.

It was agreed that the Committee should, if possible, visit places where the Wardha Scheme is in operation.

- (4) "Basic National Education" containing the Report of the Zakir Husain Committee and the detailed syllabus.
 - (5) Report of the Committee of the Central Advisory Board of Education appointed to consider the Wardha Education Scheme.
 - (6) Report of the Primary and Secondary Education Reorganisation Committee, United Provinces.
 - (7) Report of the Syllabus Committee, Central Provinces.
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APPENDIX II.

RESOLUTIONS OF THE ALL-INDIA MUSLIM EDUCATIONAL CONFERENCE
REGARDING WARDHA SCHEME.PART I.—(*General*).

(1) This conference is of opinion that Government should provide compulsory and free basic education throughout the country. This basic education should cover in the case of boys a minimum period of 8 years, *i.e.*, from the age of 6 to 14 and in the case of girls a minimum period of 6 years, *i.e.*, from the age of 6 to 12.

(2) The Conference is of opinion that the provision of educational facilities for the boys and girls should be separate but if for financial and administrative difficulties it is difficult to make provision for separate education, girls below nine may be educated in mixed schools but there should be separate schools for girls above nine years of age.

(3) The entire basic education should be imparted through the medium of the mother-tongue of students, namely, the medium of instruction for the Muslims of Northern India should be Urdu. In the Provinces where Hindustani language is not spoken, the Provincial language should be the medium of instruction; but every student may be taught Hindustani as Secondary Language. As regards the script, adequate arrangements should be made so that Muslims may learn this language in Urdu script. What is meant by 'Hindustani' language is the language generally spoken and understood by an average educated Muslim and Hindu of Northern India and Deccan.

(4) (a) In this scheme of basic education some suitable vocation or handicraft should be given central importance and the rest of the education should aim at the maximum possible adjustment of the economic and physical environment and the vocation of the child.

(b) In the matter of selection of a vocation this Conference is of opinion that the factors of educational possibilities and environment should be given careful consideration.

(c) In the selection of a basic vocation for girls, special consideration should be given to the fact that their needs and inclinations are different from the boys.

(5) In the Provinces the special educational facilities existing for the Muslims should continue and the foregoing principles of the new basic education should be introduced in the present schools where children of this age are educated but their religious and cultural characteristics should be maintained intact.

(6) Provision should be made for training a sufficient number of Muslim teachers for such schools as mentioned in the resolution No. 5. In this connection the Conference is of opinion that Government should establish a training class under the supervision of the Muslim University Training College which might train teachers for the new scheme.

(7) This conference is of opinion that it is necessary for the general educational machinery that Government should encourage private efforts in connection with the basic education.

(8) While legislating for the compulsory education, consideration should be given to the fact that if the parents can make any other satisfactory arrangements for the education of their girls, such girls may be exempted from attending Government basic schools.

(9) As regards the Advisory Committees or Boards which will be set up in connection with the introduction of basic education, it should be given consideration that the representation of Muslims on the Provincial Committees should be at least that much which they enjoy in the Legislative body of the province; and in the districts that proportionate representation which is fixed for them in the Municipal and District Boards.

(10) Since the introduction of universal compulsory education, the present non-Government institutions which are catering for religious instruction will not be able to discharge their functions effectively; and because without religious instruction, the entire education, according to the Muslims, would be defective and incomplete, in the opinion of this conference it is very essential that arrangements should be made for the compulsory religious education during the school hours for the Muslim students in all the basic schools.

(11) In this connection this committee feels duty-bound to state that the attempts in public schools to create precedents like "Bande-Matram", etc., have caused great anxiety to the Muslim Public as these things wound their religious feelings.

PART II.—(*Secondary Education*).

1. This Conference is of opinion that it is very essential to have proper co-ordination between basic and higher education so that students if they like may continue their studies after the basic education.

2. This Conference is of opinion that in the establishment of school for secondary education due concession should be made for the differing aptitude of the boys, which manifests itself generally at the age of twelve. Therefore those students who are anxious to have secondary education should be given the opportunities to join, after having received basic education for five years, the secondary schools which may be in accordance with their special aptitude.

3. If such secondary schools are to be started by private or educational bodies, such efforts should be encouraged, and the Government should give financial aid.

APPENDIX III.

NOTE BY THE HON'BLE PIR ILLAHI BAKSH NAWAZ ALI, MINISTER OF EDUCATION, GOVERNMENT OF SIND.

Agenda.

To consider whether compulsion should be introduced from the age of 6 to 11 years in the first stage or from the age of 7 to 14 without any preliminary stage.—(a) I would favour an earlier lower age-limit for compulsion for this reason that parents in the rural areas, with which any system of mass education in India will mainly be concerned, would be willing to let their children go to schools while they are still too young to be useful to them in their wage-earning occupations. Earlier the starting age of compulsion, the more willing will this vast mass of parents be to send children to schools and greater therefore will be the success of introduction of compulsion. And once the little children are "captured" with the willing consent of their parents, the new schools if they are everyday a demonstration of their utility, will induce the parents to let their children continue in these schools even after the children are old enough to help the parents in their occupations at home and in the farms. An earlier starting age-limit for compulsion is desirable also on another ground. We take the children at a stage when they are more plastic in body and mind than they would be at a later stage. I would prefer therefore starting age-limit of 6 and not 7 for compulsion, and the age-range of 6 to 11 as the first step towards a more extensive plan of compulsion where provincial finances permit it.

(b) Even with an earlier starting age-limit for compulsion, say 6 years, a preliminary stage of education for children between 3 to 5 years is necessary in any soundly concerned educational psychology as the most formative years in the earlier life of man, and these we cannot neglect. We cannot concentrate on the superstructure and leave the foundation to be laid indifferently. But this problem of "pre-basic" education, whether it should be compulsory, what its objective and methods should be, what provision should be made for the training and supply of teachers for this stage of education, the financing of it, its correlation with basic education, all these are matters which form a big problem by themselves, and ought to be considered carefully as separate items in the agenda of a future meeting of this committee.

(c) Where compulsion for the age-range of 7—14 is introduced, I think it is only natural that it should apply also to those who leave the basic schools at the age of 11, and join anglo-vernacular schools. It should apply to such cases till they attain the age of 14.

II. *To consider what should be the general aim of the entire educational system in a province, and what should be the aims (not inconsistent with the above general aim) for complete basic education for children aged 7 to 14 years, or separately for the two stages of basic education 6 to 11 and 12 to 14, and how far these stages should be complete in themselves and how far a step towards the higher range in the educational ladder.*—This

issue was framed by the Sind Government because of the chaotic state of educational planning in the country. While in every aspect of national life, we take care to consider the objective in any campaign, in education we are apt to frame schemes without considering or clearly formulating our aims, and without a clearly visualized goal for our educational programmes. We are apt to land ourselves in an endless morass of complications which will necessitate a fresh overhauling of our educational system. This will only mean a tremendous waste of national energy, enthusiasm and funds in the meanwhile. What kind of individual or citizen do we want our educational system to produce, what kind of social and political order do we want these products of our educational system to sustain, invigorate and keep alive. Should our educational system emphasize the "bread and butter" objective or should it consider also the claims of culture? Do we want our children to be trained in water-tight communal compartments and perpetuate the old animosities, or shall we broad-base our new system on a catholic conception without endangering the culture and heritage of the different communities? There is a wide conflict of conceptions about educational objectives, and it will be a pity if, at the very threshold of a new era in education, the country should have no clearly visualized goal and go on passing syllabuses and building up new organizations, without a clearly formulated objective. I feel that not only this committee but also the Central Advisory Board should address itself to this primary task before it spends its time and energy on any other problem. Let the entire country be given a right lead in this first essential factor of the Indian educational problem, and then we shall find that we shall emerge out of the chaos into which educational thought in the country has fallen, and every province will be able to evolve sound schemes of education for itself. On this subject also I would suggest a special meeting of the committee, or of the Central Advisory Board. Our entire educational organisation, the various stages of it and the nature of each, the finance, the syllabuses, all will depend on the aim we have in view, and the effectiveness of any system is largely due to a clearly formulated aim. Without such an aim, we would be like a pilgrim who just steps on to the highroad without the slightest idea about where he intends going with the result that, instead of finding his journey smooth and straight, he is subjected to vexations and inconveniences and has often to retrace his footsteps. It may possibly happen that such a pilgrim, because he has foolishly started on a journey without considering his goal, may after many years of travel and trouble, find himself again no further from the starting point, and start his pilgrimage afresh. I feel the best brains in our educational service and outside must be requisitioned to solve this first essential of our educational problems which cannot be solved in a few minutes as one item among 18 in the agenda for this meeting.

III. *To consider the question of co-ordination of the Wardha Scheme with higher education.*—The question of the co-ordination of the Wardha Scheme with higher education is bound up with the problem of our aim in education. If we have any clear aim about the Wardha Scheme, naturally that aim will guide us in framing our higher stages in education without endangering the principle of co-ordination. But have we really a clearly formulated aim in the Wardha Scheme, or is it simply the product of some good impulses or theories which have not yet been brought into vital relationship with each other from the standpoint of some central

aim? This question of co-ordination will naturally resolve itself into the following factors, each of which must be given close thought:—

- (a) What types of secondary schools, lower or higher, should be set up to serve the needs of those pupils who may join them after completing 8-year or 7-year basic education.
- (b) What types of secondary schools should be set up to serve the needs of those pupils who leave the basic schools at the end of 5 years.
- (c) Should these two classes of secondary schools have a rich variety of educational content and objectives (either as self contained units or as preparatory stages for University courses or specialised branches of learning or skills), or should they be cast into one mould in the entire province.
- (d) Should these post-basic institutions be merely some kind of a continuation of the basic education in aim and method, or should they be actuated by new aims.
- (e) What should be the relation of these post-basic secondary schools with the final stages in our educational ladder (the University courses, etc.).
- (f) The duration and educational content of each of these stages in education, after the basic education.
- (g) Administrative co-ordination of the basic and post-basic education—whether one single education board in administrative charge of all the stages is more likely to secure a unified administrative and educational policy for the educational system in a province, or is it not more convenient and sound to have separate boards for basic, post-basic secondary and University stages

All these are the several factors that make up the problem of co-ordination, and I have only stated them. A careful consideration of each factor in the problem may be undertaken or not at this meeting as the answers of opinion among the members of the committee may decide.

IV. *To consider the desirability of the division of the basic schools into primary and upper primary schools or stages and the examination of the curriculum in the light of this possible division.*—I personally feel that a bifurcation at the age of 11 plus is desirable and this point of time in the life of a pupil in a basic school and in the duration of basic education should be the point for division of schools in primary and upper primary. Considerations of adolescence, consideration of sex-developments at this stage, consideration of the need of some classes of students to desist to special types of secondary schools at an earlier stage, all these point to the desirability of a division of basic schools into primary and upper primary.

The curriculum of each of the two divisions, while guided by one central aim, should be so fixed as to recognise the general educative process that is sufficient before adolescence and the special educative process that is essential from the onset of adolescence. Perhaps in the primary stage, the subject of importance should be practical civics, organized games and special crafts, while in the primary stage the subjects

and activities should be of a more general and spontaneous nature not calling for narrow specialization or definitely productive activity.

V. *To consider the question of the transfer of children from "basic" schools at the age of 11 plus to other schools.*—If we agree to divide the basic schools into primary and upper primary stages, one of the reasons is that some students would desire transfer to other types of schools before they complete the entire period of 7 or 8 years in a basic school. But, as such transfers, if indiscriminately made, may defeat the purpose of compulsion, clear rules must be framed to regulate such transfers. In the first place, a pupil or his parent seeking to leave a basic school at the age of 11 plus must show that he wishes to leave it definitely for joining another type of school. He must indicate the school he wishes to join and obtain a note from that school to the effect that he is going to be admitted to that school. Moreover, the pupil desiring this kind of transfer must be certified to have completed the five years in the basic school satisfactorily, and should be required compulsorily to complete two or three years more at his new school.

VI, VII, VIII and IX. These items in the agenda are partially answered in my remarks on item No. V and item No. III. It is a question of "post-basic" schools, and the factors of this problem I have stated in my remarks on item No. III.

X. *To consider the desirability of providing for parallel courses of instruction for girls in the upper classes of "basic" schools.*—If at the age of 11 plus, co-education must cease, I think it would be advisable to have a differentiation of courses for the two sexes in the upper primary stage of the basic schools. In schools where co-education continues right up to the end of the 14th year the purpose of "parallel courses" would be adequately served by allowing certain options specially suited to the aptitude and requirements of girls, e.g., cooking (pastry-making, manufacture of chutneys, marmalades, etc., sewing, embroidery, child-psychology, care of the infants) which, however, would be open for boys also to take up if they so choose. This is already dealt with partially in my remarks on items Nos. II, III and V. This also is a problem of co-ordination, the factors of which I have indicated.

XII, XIII and XIV. These have been dealt with in the Government of Sind Note which appears in the Central Advisory Board's note on action taken or proposed to be taken by Provincial Governments.

XV. *To consider whether it is desirable or practicable for the state to finance "post-basic" and college education.*—This problem is a matter of financial resources of each province. If the Wardha Scheme with an 8-year compulsion is introduced in a province, it leaves hardly anything to be spent on "post-basic" secondary schools and a college education. In this situation, if the needs of mass education are regarded as of paramount importance, post-basic and college education should be left to private enterprise. The only thing the state should do is to organize these stages of higher institutions on sound educational and administrative principles and to relax such regulations as at present impose unnecessary financial limitations on private agencies (e.g., rules about costly buildings or endowment or reserve funds, etc.). While the state must remove these unnecessary impediments from the path of private enterprise in higher education, it must still regulate the standard of teaching and attainments in these institutions as well as impose safeguards against undesirable

multiplicity of such institutions and unhealthy competition among them.

If the Wardha Scheme is not adopted or only a limited form of compulsion is introduced, it is desirable and practicable for the state to aid (not entirely finance) "post-basic" secondary schools and colleges.

XVI. *To consider the desirability of establishing a Board to co-ordinate the work of "basic" education undertaken as an experiment or otherwise in various provinces of the country.*—The idea of a central board for basic education is rather premature. I doubt whether all the provinces have really accepted once for all the principles of the Wardha Scheme, and if a Board is established, it would mean an exclusion of some provinces from its membership, though these provinces may ultimately evolve schemes of education which may be found more suited to the needs of India in general and their own area in particular than the Wardha Scheme. I suggest that the purpose of co-ordination and many other useful purposes would be served if a permanent sub-committee of the Advisory Board is set up to examine and co-ordinate *all new* experiments whether on Wardha lines or otherwise. This committee should have one member who should be frequently sent to different provinces on visits to see the working of new experiments. His reports should be annually or more frequently placed before the "New Education Sub-committee" for co-ordination and discussion, and these reports will secure further co-ordination and provide greater stimulus to the zeal for reform in provincial governments from time to time. This sub-committee should be formed of educational experts, one from each province recommended by the provincial governments.

XVII. *To consider the desirability of starting a central bureau to supply uniform literature on the topics included in the curriculum of basic schools.*

Excellent idea.—The bureau should also collect any useful information that may be available in any provinces and circulate it to all the provinces. It should also keep a note of all good publications on the topics, and draw the attention of all the provinces to them. If possible, a fortnightly educational bulletin with the above object and for co-ordination of new experiments in education (including the Wardha Scheme) may be published by this bureau.

XVIII. *To consider the question of the disposal of the produce of the childrens' activities.*—I am afraid, the idea that the Government of a province should purchase these articles and sell them to consumers who are expected to pay more for them than the market rates justify, is fantastic. It will never work. But a collecting agency is necessary and a central agency to distribute and sell these articles. The prices of these articles can only be regulated by the general law of demand and supply, or each school or all the schools of a taluka should give a yearly contract to some dealer for the purchase of their articles on some reasonable terms of profit to the dealer and secure through easy payments to the schools.

A General Note.—From the demi-official letter of the Commissioner, it looks as if the main subject for discussion at the meeting is to discuss our terms of reference generally and decide what particular features of the (Wardha) scheme we wish to study on the spot and where we can best see them. I hope, we will be discussing the terms of reference of

the Wardha Education Committee not generally but as contemplated in the agenda placed before us. That I understand, is what is meant by a general discussion of our terms of reference. That general discussion, confined to the items in the agenda is, I expect, likely to lead us to a consideration of our programme for visits to Wardha scheme centres. But, though a general discussion of our terms of reference on the basis of the agenda supplied to us is welcome, I doubt whether a visit to any of the Wardha scheme centres at this stage of the experiment will be productive of much enlightenment, except in observing the method of teaching and the spirit of the scheme. Many of our problems, such as the correlation of the Wardha scheme with higher education or even the financing of the scheme, or the question of age-range or bifurcation at some stage and numerous other problems connected with the Wardha scheme will not in any way be solved by a visit to places where the Wardha scheme has just been started. We can either work towards a solution of these problems from now in the faith that the Wardha scheme is bound to produce the result of the experiment (not as contemplated but as actually proved in practice). I am strongly of the opinion that where an entirely new educational experiment is concerned, involving radical departures from the existing system, involving many financial and educational complications, we should not extend the field for experimentation on the mere assumption of its ideological soundness. While experimentation on a reasonable scale is necessary, we should not take it for granted that the experiment is bound to succeed and immediately begin solving all the other correlated problems and doing further stages of education on this assumption. I would suggest that instead of visiting the different centres where the Wardha scheme is being tried and formulating our conclusions so soon, we suggest a limited programme of minimum experimentation to all the provinces, and then an expert should visit the experimental centres in all the centres, and the reports of this expert should be annually considered by the Wardha Committee till such time as we have enough material and evidence at our disposal to formulate a forward educational policy for universal adoption all over India with only such modifications for each province as the local conditions justify.

APPENDIX.

REPORT OF THE FIRST COMMITTEE OF THE CENTRAL ADVISORY BOARD OF EDUCATION APPOINTED TO CONSIDER THE WARDHA EDUCATION SCHEME, 1938.

The Central Advisory Board of Education at its meeting held in January 1938 appointed a Committee, with powers to co-opt, to examine the scheme of educational reconstruction incorporated in the Wardha Scheme in the light of the Wood-Abbott Report on General and Vocational Education and other relevant documents, and to make recommendations.

This Committee met in Simla on the 28th, 29th and 30th June 1938 and was attended by the following members:—

1. The Hon'ble Mr. B. G. Kher, Premier and Education Minister, Government of Bombay. *Chairman.*
2. The Hon'ble Dr. Syed Mahmud, Minister for Education, Government of Bihar.
3. The Hon'ble Pandit R. S. Shukla, Minister for Education, Government of the Central Provinces and Berar.
4. Lady Grigg.
5. Rajkumari Amrit Kaur.
6. Dr. Sir Zia-ud-Din Ahmad, C.I.E., Ph.D., D.Sc., M.L.A.
7. Mr. W. H. F. Armstrong, I.E.S., Director of Public Instruction, Punjab.
8. Mr. Syamaprasad Mookerjee, Vice-Chancellor, Calcutta University.
9. Dr. Zakir Husain, Principal, Jamia Millia Islamia, Delhi.
10. Khan Fazl Muhammad Khan, Commissioner and Secretary to His Exalted Highness the Nizam's Government, Department of Technical and Vocational Education.
11. Mr. J. E. Parkinson, C.I.E., Educational Commissioner with the Government of India.

Mr. R. M. Statham, C.I.E., I.E.S., Director of Public Instruction, Madras, was unable to attend the meeting as he was on leave out of India.

Mrs. Hansa Mehta, Parliamentary Secretary for Education to the Hon'ble the Prime Minister, Government of Bombay, was co-opted and attended the meeting.

2. The papers mentioned in appendix I to this Report were circulated to the members of the Committee beforehand.

3. *Genesis of the Wardha Scheme.*—The present educational system of India has of recent years been condemned on the grounds that it has failed to adjust itself to changed conditions and is "uninspired by any life-giving and creative ideal". In 1937 Gandhiji initiated in the columns of the Harijan a discussion of the Indian educational problem and offered many suggestions the main principles of which were:—

- (a) The course of primary education should be extended at least to seven years and should include the general knowledge gained up to the matriculation standard less English and *plus* a substantial vocation.

- (b) For the all-round development of boys and girls all training should so far as possible be given through a profit-yielding vocation.
- (c) This primary education, besides training the mind, should equip boys and girls to earn their bread by the State guaranteeing employment in the vocations learnt and by buying from the schools their manufactures at prices fixed by the State.
- (d) Such education taken as a whole can and must be self-supporting.
- (e) Higher education should be left to private enterprise and the State universities should be purely examining bodies.

4. An All-India National Education Conference, which was convened at Wardha in October 1937 under the presidentship of Gandhiji to consider his proposed scheme of self-supporting education, passed the following resolutions:—

- (a) that free and compulsory education be provided for seven years on a nation-wide scale;
- (b) that the medium of instruction be the mother-tongue;
- (c) that the Conference endorses the proposal made by Gandhiji that the process of education throughout this period should centre round some form of manual and productive work and that all the other abilities to be developed or training to be given should, as far as possible, be integrally related to the central handicraft chosen with due regard to the environment of the child;
- (d) that the Conference expects that this system of education will be gradually able to cover the remuneration of the teachers.

The age of entry to school should be 7 years and the standard attained at the end of 7 years schooling should approximate to the Matriculation (less English).

5. The All-India National Education Conference then appointed a Committee under the Chairmanship of Dr. Zakir Husain, Principal of the Jamia Millia Islamia, Delhi, to formulate a scheme of basic education on the lines suggested by its resolutions. This Committee worked out in detail the implication of those resolutions and its report is the authoritative Wardha Scheme of Education.

6. That Report (called for purposes of reference, the Zakir Husain Report) was in the hands of each member of the Central Advisory Board of Education Sub-Committee. Before the discussion either on the principles on which the Wardha scheme is based or on its details, Dr. Zakir Husain, whose presence at the meetings was of the utmost value, pointed out that many of the criticisms to which the Wardha Scheme had been subjected, arose from either a misconception of the fundamental ideas on which the scheme rests or from statements extracted from their context which give a false or distorted impression.

7. Dr. Zakir Husain felt that the discussion would be less discursive if he first pointed out what the Wardha Scheme was not. The removal of misunderstandings and the correction of false impressions would enable the members of the Committee to confine their remarks to the real and not to some hypothetical scheme and so avoid irrelevancy.

8. Dr. Zakir Husain mentioned that criticism was directed mainly against the idea that the scheme was conceived wholly with the set purpose of making education self-supporting by the sale of articles made by the pupils. It appeared to be a scheme of production with conscript child labour. This impression was entirely wrong. The scheme was one of education, not production. The educative value of craft-work and activity was throughout emphasised and the economic question was quite subsidiary. Education in Wardha schools would be carried on through real life situations arising from the physical and social environment of the child and the craft activity. Education through activity is now considered by all teachers as "the most effective approach to the problem of providing an integral all-sided education".

9. The Zakir Husain report defines the aim of the Wardha Scheme not as "the production of craftsmen able to practise some craft mechanically but rather the exploitation for educative purposes of the resources implicit in craft work", and sounds a warning of the obvious danger of stressing the economic aspect to the sacrifice of the cultural and educational objectives. The Wardha scheme rejects any mechanical labour in schools *merely* for production and states as a necessary condition of education that "the craft or productive work chosen should be rich in educative possibilities. It should find natural points of correlation with important human activities and interests". This view is identical with that expressed in paragraphs 10-17 and 24-25 of the Wood-Abbott Report and is in complete accord with modern educational thought. The Wardha Scheme deals only with compulsory primary education and does not imply any stoppage of grants to existing schools or colleges.

10. Hence all criticism, directly or indirectly implying that child labour is to be exploited for economic purposes, so that the schools can be wholly or even partially self-supporting is irrelevant. Critics therefore who believe that the schools will be industrial or vocational in the narrow sense and that the system is intended to force young children into prescribed vocations have not appreciated the real significance of the Wardha Scheme.

11. Dr. Zakir Husain deprecated uninformed criticism of the Scheme as a result of statements made by enthusiastic but misguided protagonists. He denied that the scheme would remove unemployment; indeed the question of unemployment was not even mentioned in his report, though he felt that the pupils of the Wardha schools would be better "employable" material than the pupils of existing schools because the Scheme was designed to produce "workers who will look upon all kinds of useful work as honourable and who will be both able and willing to stand on their own feet". He also denied that the Scheme stated or even implied either that the Government would provide employment at the end of the course or that all existing schools were to be transformed immediately into Wardha schools.

12. Dr. Zakir Husain next answered the criticism which had arisen in one form or other mainly from Muslim sources that the proposed Wardha schools neglected religious education, and were entirely secular in outlook. He admitted that the scheme prescribed no syllabus in religious education as the difficulties were obvious, but one of its foundations was a respect for all religions. The Wardha scheme neither made nor implied any alteration in the present position by which any community at its own expense is permitted to give religious teaching in Government or Local

Body schools to the pupils of that community out of school hours. Dr. Zakir Husain stated that no community need have the least apprehension that the Wardha Scheme was intended to discourage any form of religion or religious observance.

13. Misunderstanding also existed in regard to co-education. The Wardha Scheme does not make co-education compulsory to any age, and can be adopted in either boys or girls or co-educational schools. Indeed it expresses no opinion whatever whether or not co-education is desirable. The option given to parents in the Wardha scheme to withdraw their girls from school after the completion of the twelfth year does not imply that boys and girls should receive co-education up to that age.

14. After illuminating the educational and sociological bases on which the Wardha Scheme rests, Dr. Zakir Husain referred to the charge that under the Wardha scheme universities were to be merely examining bodies and as such would receive no financial aid from Government. Such a charge needs no refutation. His Report expressly excludes any discussion on secondary education for pupils above the age of 14. If the Wardha Scheme is adopted, a system of higher education co-ordinated with the Wardha organisation will have to be worked out.

15. To summarize, the Wardha Scheme—

- (a) emphasises education through activity and is not primarily concerned with the production of saleable material;
- (b) does not make spinning and weaving the only basic craft, but admits of the inclusion of any craft of equal or higher educative possibilities;
- (c) does not imply the ruling out of facilities for religious (denominational) education, where any community desires it; and
- (d) does not state or imply that the salary of the teachers must be directly met from the sale of material made in the school.

Dr. Zakir Husain's explanation removed from the minds of some members of the Committee the apprehension aroused by the literature which preceded the formulation of the Wardha Scheme and by some of the phraseology of the Wardha Scheme Report itself and so prepared the ground for a discussion of details.

16. The framers of the Wardha scheme deliberately confined their proposals to village education as the bulk of India's population resides in villages. The scheme is therefore primarily for rural areas. The Committee therefore wish to emphasise that it should first be introduced in rural areas and should not be extended to urban areas without necessary modifications though the principle of education through activity is as true for urban as for rural schools.

17. *Age range for "basic" education.*—The Zakir Husain Committee lays down a seven years course of education from the age of 7 to 14. They however, realise that by fixing 7 as the age for the introduction of compulsory education, they have neglected a very important period of the child's life. In view of financial and other considerations, they did not feel justified in including the education of children below the age of 7 as a part of the compulsory scheme, though they hoped that nursery and infant schools would be started and encouraged by the State.

18. The normal age for admission to school in all advanced countries is 5 or 6. Even in India under the existing system of education children are usually admitted to school about the age of 6. This period of a child's life offers such educative possibilities that the majority of members preferred that the age range for compulsory education should be six years to fourteen years, though children of 5 years of age should not be excluded from school. It was agreed that compulsion could not be made effective merely by passing an Act making compulsion universal. Such a course would be unwise and impracticable, but the difficulties must be faced and effective compulsion extended as rapidly as possible.

19. In provinces where compulsion is in force the age limits are usually 6 to 11 (Appendix II). The Committee agree that this higher age limit must be increased to 14. Protagonists of the Wardha Scheme prefer that if for compulsory education, any lesser period than seven years has to be taken, the higher age limit of 14 should remain and whatever period is fixed should be reckoned downward from the age of 14 rather than upward from the age of 6. In other words, compulsion from 9 years to 14 years is preferable to compulsion from 6 years to 11 years. They argue that in the present circumstances education in the early years is of little worth, causes wastage and stagnation and is therefore a waste of money and that the years of adolescence offer greater educative possibilities than the age of childhood. By retaining the higher age limit, civic and social responsibilities, permanent literacy and craft skill and interest can be better developed.

20. The Committee whilst recommending that the age for compulsion should be 6 to 14 were not unaware of the financial and other difficulties, particularly that of the supply of suitable teachers, and feel that the approach to universal compulsory education from 6 to 14 will depend on the financial and other resources of the different provinces. A number of members prefer the compulsory period to begin from the age of 6 and gradually work up to 14.

21. *Stoppages of Education.*—All schools under the Wardha Scheme are basic schools and therefore no difference in nomenclature between "primary" and "secondary" classes or stages is made. Primary and secondary education, however, form two well-defined stages each with its own scope, aims and methods. The clear distinction in aims and methods between these stages must be kept in view. This question is discussed at length in the Hadow Report. The Central Advisory Board of Education at its first meeting held in 1935 recommended a revised school organisation consisting of a primary stage of four years, a lower secondary stage of four years and a higher secondary stage of three years. The writers of the Wood-Abbott Report "whole-heartedly commend the general layout of this proposed reconstruction". Indeed every province makes the distinction between primary and secondary or middle education though the dividing line is at the end of the fourth class in some provinces and at the end of the fifth in others. The Committee, however, felt that it was unnecessary to make any recommendation in this connection as the question would need consideration at greater length when the co-ordination of the final form of the Wardha Scheme with higher education is taken up. It was agreed unanimously that transfer to Anglo-vernacular and other schools should be permitted after the completion of the fifth class or about the age of 11+.

22. *Medium of Instruction.*—The Wardha Scheme lays down that the medium of instruction shall be the mother-tongue, that is, the vernacular of the pupils. The Wood-Abbott Report makes the same recommendation and few will be found to disagree. The Committee unanimously approve, though they are aware that in certain provinces a difficulty might arise as more than one vernacular may be spoken. In making this recommendation the Committee wish to emphasise that the term “vernacular” connotes the “literary” language and not a dialect.

23. *Hindustani.*—The object of including Hindustani as a compulsory subject in the school curriculum is, according to the Zakir Husain Committee, to ensure that all the children educated in the “basic” schools may have a reasonable acquaintance with a common “lingua franca”. That Committee has accordingly recommended that in Hindustani-speaking areas this language should be the mother-tongue but the students as well as the teachers will be required to learn both the scripts so that they may read books written in Urdu as well as in Hindi, and that in non-Hindustani speaking areas, where the provincial language will be the mother-tongue, the study of Hindustani should be compulsory during the 5th and 6th years of school life but the children will have the choice of learning either one or other script. Thus teachers who have to deal with children of both types must know both the scripts. The Committee recognise the desirability of a common language for India which should be Hindustani with both the Urdu and Hindi scripts, though some members believe that the adoption of one common script, the Roman, would considerably simplify teaching procedure and tend to unity among different communities. There is the danger that undue influence might be brought to force children to read in the script other than that of their choice, especially when the number of such children is small. The Committee desire to emphasise that full option should be given to children to choose the script and that provision should be made for teaching them in that script.

24. *English.*—Discussion on the question whether English should be taught in the “basic” schools revealed considerable difference of opinion. Some members of the Committee feel that English should have no place in these schools which are primarily meant for rural areas. The study of English in such schools is educationally unsound. The time taken in its study is out of all proportion to the advantage gained and tends to prevent the formation of a firm foundation of education.

25. On the other hand, some members of the Committee believe that a good grounding in English is essential for higher studies and so long as English remains the medium of instruction in colleges and retains its importance in all phases of Indian life, the study of English must be started at an age earlier than 14. The Wood-Abbott Report, with its emphasis on teaching through the vernacular, admits that “the study of English, at least as an optional subject, may have to be included in the curriculum of some of the lower secondary schools where there is a public demand for it”.

The Committee, however, agree that the demand for English will be met by the possibility of transfer after the 5th class or about the age of 11+ to schools where English is taught and that English should not be included in the curriculum of “basic” Wardha Schools.

26. *Craft and Manual Activities.*—The fundamental principle of the Wardha Scheme is education through productive craft activity. Perhaps

the word "creative" would be preferred to "productive" by educationists as the word "productive" may be and has been read to imply that economic production outweighs educative development. We emphasise that the Wardha Scheme stresses the educative value of craft work. That saleable material will be produced in the higher classes of the basic schools is no objection to the scheme. Indeed unless saleable material is produced the educative possibilities have not been satisfactorily exploited. The income from the sale of such material might well be applied to the upkeep of the school.

27. It is unnecessary to discuss the educative principle of learning by doing. All recent literature emphasises this principle and all schools with any pretence to be up-to-date have adopted it. Indeed the education of children through hand work in its various forms is one of the outstanding features of modern education. The Committee unanimously agree with the principle of educating children through purposeful creative activities which should gradually develop into productive work.

28. To prescribe one basic craft in the lowest classes of a school which children of the age of about 6 may join is educationally unwise. The activities in these classes arise from the child's interests and desires and should not be forced on him by the adult. Any activity which appeals to a child's interest is suitable so long as it "makes a demand on a boy's skill, judgment, sense of observation and power of calculation and combines all or some of these in a constructive effort to achieve an end which he himself wishes to achieve". As the Wood-Abbott Report says, "it is not so much the thing made or done as the integration required in the making or doing, which is of educational value". Dr. Zakir Husain himself emphasises this point in his appendix to "The Activity School", when he says "It is not the attainment of skill but the process of acquiring it that is educative". As the child becomes older his interests change. Many of them become less transitory and can be satisfied through one basic craft in which the pupils should reach a high degree of skill. Such crafts as agriculture, weaving, woodwork, metal work provide facilities for educational development, appeal to the growing child's sense of making and doing something, increase his self-respect since the product of his labour has a market value and tend to remove the false idea that manual work is objectionable.

The Committee therefore are of opinion that in the lower classes (to the age of about 10 plus) there should be no single basic craft but that the various forms of activity should serve as a preparation for, and develop into, a productive basic craft in the higher classes.

29. It naturally follows that in all basic schools, indeed in all primary classes, various kinds of material for handwork must be available. Unless sufficient material is provided, the school cannot be a centre of activity.

30. *The Teacher.*—The most important condition for the success of any educational scheme is the teacher. Revised methods may be proposed, new procedure suggested or a different organisation adopted, yet these will be ineffective and fruitless unless the teachers are able to appreciate and understand the theory leading to the changes and are competent to carry them out so that the desired intention may result. As Dr. Zakir Husain writes in his report, "it is essential that these teachers should have an understanding of the new educational and social ideology inspiring the scheme combined with enthusiasm for working it out"

31. The teacher must therefore be competent to teach to the standard of the Matriculation in the usual school subjects, must be expert in methods of teaching these subjects through craft activities and must be skilled in the processes and technique of certain basic crafts. Without such teachers the Wardha schools cannot succeed and teachers of the type required are practically non-existent at present. To attempt to introduce the scheme over any wide area would invite failure.

32. The pace at which the schools can be established will depend almost entirely on the supply of trained teachers competent to implement the scheme. Hence the Committee agree with the recommendation in the Zakir Husain Report that a reasonably large area should be selected for the experiment and an educational survey of that area should be carried out by the Education Department. Immediate steps should then be taken to train the required number of teachers in the existing normal schools which should be reorganised and restaffed to suit the new system of training. In the meantime all normal schools should be so reorganised and schools should be gradually converted to activity schools as suitable teachers become available. The provision of suitable teachers will be accelerated when pupils having passed through the Wardha schools seek training as teachers, for such pupils will have absorbed the spirit of the teaching and will be skilled in some basic craft.

33. At present the usual qualification for a teacher in a primary school is a pass in the vernacular middle school examination (held after completing an eight-year course) followed by one or sometimes two years training in a normal school. Many primary teachers do not possess even these qualifications whilst a small percentage have passed the Matriculation. This qualification, however, is for primary school purposes little if any better than the vernacular middle qualification as the gain in English often does not compensate for the loss in other ways. Obviously teachers with these qualifications cannot be expected successfully to teach satisfactorily up to a standard as advanced as their own.

34. The Wardha Scheme rightly emphasises the importance of the teacher and in order to start the scheme proposes a short emergency course of one year for specially selected teachers. The complete training course, however, is to cover a period of three years.

35. Before admission to the training college the candidate must have passed the Matriculation examination or have had at least two years' experience after passing the Vernacular Final or equivalent examination. The Committee agree that as the success of the scheme mainly depends upon the teachers it is imperative to prepare competent teachers. Some of the members, however, are apprehensive whether sufficient candidates will be forthcoming to undergo a three years training in return for the exiguous salary a primary teacher now receives.

36. Even after the three years course of training, these teachers will hardly be competent to carry out satisfactorily the work in the highest classes of the "basic" schools. The Zakir Husain Committee contemplated the necessity of employing in the higher classes teachers with better academic qualifications on a higher pay and with this view, the Committee entirely agrees.

37. The Committee recommend that effort should be made to increase the supply of competent women teachers. Both the Zakir Husain and the Wood-Abbott Reports point out the need of women teachers especially in

the lower classes. This point was discussed at some length in the Report on the Curriculum of Girls' Primary Schools (Central Advisory Board of Education, 1937) and the Committee wish to emphasise the conclusions stated therein in regard to the need of women teachers and the spheres of possible recruitment. Several members of the Committee pointed out that the present low salaries in some provinces would not attract a suitable type of recruit and that the teachers' social status in the villages was as a rule low. This was not surprising as his salary is frequently lower than that of a menial servant. The Committee endorse the recommendation of the Zakir Husain Committee that the salary of a trained primary school teacher should be Rs. 25 if possible, but in no case less than Rs. 20 per mensem. Efforts should also be made to raise the status of the teacher by giving him on public, semi-public and other occasions the respect his profession deserves.

38. "*Cultural Subjects*."—The Committee discussed whether or not it was possible to teach through the basic craft all subjects to the standard anticipated. There was general agreement that in the lowest classes education can be satisfactorily carried out through activities. In this connection the work at Moga and other schools was cited. But as the child advances in age and reaches the higher classes opportunities for centring his cultural work and intellectual progress on the basic craft become less frequent. Much of the academic work even in the highest class can be correlated with the basic craft, but all aspects of the "cultural" subjects cannot so be treated not even by stretching correlation beyond its legitimate limits. Formal instruction will therefore be necessary to teach certain elements of cultural subjects which cannot naturally be co-ordinated with the basic craft. Dr. Zakir Husain agrees that "the school has to provide for the attainment.....of some passive knowledge. I say this lest we forget that.....not all knowledge comes through our own active experience but through the accumulated experience of generations long past" (The Activity School—Ferriere).

39. *Curriculum*.—The subjects forming the curriculum and the syllabuses of individual subjects were seriously criticised from different points of view. Amongst the points discussed were the length of time allotted to the basic craft, the political tone of parts of the syllabus in Social Studies, the omission of algebra and major games, the ambitious nature of some of the subjects of study, the lack of suitable text-books, and other matters of lesser importance.

40. Dr. Zakir Husain pointed out that the proposed syllabuses were merely tentative and their interpretation depended on the teacher and on the provision of suitable text-books. Experience would show what changes were necessary and the syllabuses would be modified accordingly. The syllabuses published with the Wardha scheme do little more than indicate the nature of the work of the Wardha schools. Necessary details will be incorporated after experience. Indeed the Wardha Scheme advises the appointment in every province of "academic assistants" whose main duty will be to keep the curriculum under constant examination in the light of educational, local and other demands. Details will also be worked out in the normal schools and training colleges whilst the preparation of suitable text-books will be immediately taken in hand.

With this explanation the Committee noted that the curriculum and syllabuses of the Wardha basic schools are not rigid but will be changed as experience necessitates.

41. *Religious Education.*—The absence of all religious teaching from the curriculum was adversely commented on and this question showed fundamental differences of opinion. On the one hand it was contended that if the State makes education compulsory for all, then the State must make provision for religious education. Muslim members pointed out that religious instruction is an essential part of general education and any scheme of compulsory education which excludes religious instruction will be resented by that community.

42. Dr. Zakir Husain had already pointed out that the Wardha scheme makes provision for the teaching of the principles common to all religions in the hope of developing mutual respect and toleration. In Gandhiji's words:—

“We have left out the teaching of religions from the Wardha Scheme of education, because we are afraid that religions, as they are taught and practised today, lead to conflict rather than unity. But on the other hand, I hold that the truths that are common to all religions can and should be taught to all children. These truths cannot be taught through words or through books. The children can learn these truths only through the daily life of the teacher. If the teacher himself lives up to the tenets of truth and justice then alone can the children learn that truth and justice are the basis of all religions”.

43. The majority of members felt that religious teaching was best left to the parents or to the communities concerned, but that the State should permit religious instruction to be given in the school building, out of school hours. After considerable discussion the Committee agreed that the Government should provide facilities for religious teaching, as at present, but was not unanimous whether or not such teaching should be given in or out of school hours. The question of the inclusion of religious instruction in the curriculum is discussed in the Report of the Women's Education Committee of the Central Advisory Board of Education on the curriculum of Girls Primary Schools (1937). The majority of the members are in agreement with the views expressed in para. 11 of that report. Dr. Sir Zia-ud-din Ahmad and Khan Fazl Muhammad Khan, however, desired that religious instruction should be a school subject. The syllabus of studies for Muslim Theology should be prepared by Muslims, taught by Muslims and the State should provide all facilities.

44. *Examinations.*—The Wardha Scheme of education makes no provision for external examinations but emphasises the need of efficient and helpful supervision as contrasted with mere inspection.

45. In regard to examinations the Committee would go even further than the Wardha Scheme anticipates. The Zakir Husain report states that “the purpose of the examination can be served by an administrative check of the work of the schools in a prescribed area, by a sample measurement of the attainment of selected groups of students conducted by the Inspectors of the Education Board”. The Committee feels that even this sample measurement is open to objection and might be omitted. The standard of work in the school should be maintained by the inspecting staff and by local exhibitions of work. Promotion from grade to grade should rest entirely with the school on the results of an internal test. The

papers and work of the pupils and the results of the test should be reviewed by the inspecting officer at the time of his visit. At the end of the school course the school itself can grant a leaving certificate after a final internal examination stating merely that the pupil has satisfactorily completed the course of the basic school. The certificate may be countersigned by the supervisory or inspecting officer after he has reviewed the pupil's work in the final test if an additional check is considered necessary. For pupils who leave the basic schools for other schools about the age of 11 plus after having completed the first five classes a similar leaving certificate will suffice. Admission to these schools should be controlled by their Headmasters who may prescribe any form of test they consider suitable for their purpose.

46. *Finance.*—The Committee did not consider the question of finance as this was outside their terms of reference. They wish, however, to point out that "activity" schools will cost more to run in the beginning than the present type of school and that the rate at which compulsion proceeds and the age to which it is applied are primarily financial questions, the consideration of which must be left to the Provinces.

47. *Conclusions.*—The following is a summary of the main conclusions reached at the meeting of the Committee:—

- (1) The scheme of "basic" education should first be introduced in rural areas.
- (2) The age range for compulsion should be 6 to 14 years, but children can be admitted to the "basic" school at the age of 5.
- (3) Diversion of students from the "basic" school to other kinds of school should be allowed after the 5th class or about the age of 11 plus.
- (4) The medium of instruction should be the vernacular of the pupils.
- (5) A common language for India is desirable. This should be Hindustani with both the Urdu and Hindi scripts. Option should be given to children to choose the script and provision should be made for teaching them in that script. Every teacher should know both scripts, viz., Urdu and Hindi. Some members of the Committee suggest that the adoption of Roman script might prove a solution to the language difficulty and greatly minimise the work of both scholar and teacher.
- (6) The Wardha scheme of basic education is in full agreement with the recommendations made in the Wood-Abbott Report so far as the principle of learning by doing is concerned. This activity should be of many kinds in the lower classes and later should lead to a basic craft the produce from which should be saleable and the proceeds applied to the upkeep of the school.
- (7) Certain elements of cultural subjects, which cannot be correlated with the basic craft, must be taught independently.
- (8) The training of teachers should be reorganised and their status raised.
- (9) No teacher should receive less than Rs. 20 per mensem.

- (10) Efforts should be made to recruit more women teachers and to persuade girls of good education to take up teaching.
- (11) Basic schools should be started only when suitable trained teachers are available.
- (12) The curriculum will need revision in the light of experience.
- (13) English should not be introduced as an optional subject in basic schools.
- (14) The State should provide facilities as at present for every community to give religious teaching, when so desired but not at the cost of the State.
- (15) No external examinations need be held. At the end of the basic school course a leaving certificate based on an internal examination should be given.
- (16) Pupils wishing to join other schools at the end of the 5th class (age 11 +) should also be granted a leaving certificate.
- (17) Promotion from class to class will be determined by the school, though the results of the internal examinations should be subject to the supervisor's inspection.

B. G. KHER (*Chairman*).

SYED MAHMUD.

R. S. SHUKLA.

GERTRUDE C. GRIGG.

AMRIT KAUR.

ZIA-UD-DIN AHMAD.

W. H. F. ARMSTRONG.

S. P. MOOKERJEE.

FAZL MUHAMMAD KHAN.

HANSA MEHTA.

J. E. PARKINSON.

On account of his illness, Dr. Zakir Husain has not been able to sign the Report. He has, however, approved it.

APPENDIX I.

The following is a list of papers which were circulated to the members of the Committee:—

1. Resolution passed at the third meeting of the Central Advisory Board of Education, held on the 28th January 1938, appointing this Committee.
2. Proceedings of the All-India National Education Conference held at Wardha in October 1937 to consider Gandhiji's scheme of basic education.
3. Report of the Zakir Husain Committee and the proposed syllabus prepared by it.
4. Note by Mr. J. E. Parkinson, C.I.E., Educational Commissioner with the Government of India, on the objections to the Wardha Education Scheme.
5. Note by Khan Fazl Muhammad Khan, Commissioner and Secretary to His Exalted Highness the Nizam's Government, Department of Technical and Vocational Education, on the Wardha Education Scheme with a chart illustrating a possible scheme of re-organisation of education in Indian schools.
6. Note on the action taken, or proposed to be taken, by the Provinces on the Wardha Education Scheme.
7. Resolution passed by the All-India Educational Conference on the Wardha Education Scheme at its thirteenth session held in Calcutta in December 1937.
8. Report of the Madras Teachers' Guild on the Wardha Scheme of Basic Education.
9. Resolution passed by the Indian National Congress at Haripura in February 1938 on national education in India.
10. Resolutions passed at the first meeting of the Central Advisory Board of Education held in December 1935 on educational reconstruction in India.
11. Circular letter to Provincial Governments and Local Administrations No. F. 1-6 (a)/36-C. A. B., dated the 30th April 1936, on the resolutions of the Central Advisory Board of Education on educational reconstruction.
12. Resolutions passed by the Indian Universities' Conference in 1934 on educational reconstruction.
13. Circular letter to Provincial Governments and Local Administrations No. F. 83-1/34-E., dated the 25th January 1935, on educational reconstruction in India.
14. Circular letter to Provincial Governments No. L.-1834, dated the 20th January 1938, on Government recruitment and unemployment.
15. Report on Vocational Education in India by A. Abbott, C.B.E., formerly His Majesty's Chief Inspector of Technical Schools, Board of Education, England, with a section on General Education and Administration by S. H. Wood, M.C., Director of Intelligence, Board of Education, England.
16. Views of the Provincial Governments on the recommendations made in the Wood-Abbott Report.

17. Report on Vocational Education in Hyderabad State by A. Abbott, C.B.E., formerly His Majesty's Chief Inspector of Technical Schools, Board of Education, England.

18. Report of the Sub-Committee for the re-organization of education in the Hyderabad State.

19. Vidya Mandir Scheme—A way to the spread of free and compulsory mass education within a fixed period.

20. Vidya Mandir Syllabus and *Ad Interim* Report of the Syllabus Committee, Central Provinces and Berar.

21. Report on Educational Reconstruction and Vocational Training in the Central Provinces and Berar.

22. Report on Vocational Training in Primary and Secondary Schools and consequent reorganization in Bombay.

23. School Education in Bengal—Resolution No. 1037-Edn., dated the 9th March 1937.

24. Report of the Women's Education Committee of the Central Advisory Board of Education on primary education of girls in India, 1936.

25. Report of the Women's Education Committee of the Central Advisory Board of Education to consider the curriculum of Girls' Primary Schools in India, 1937.

APPENDIX II.

	Age range of compulsion. Years.	
Madras	6—11.	
Bombay	6—11.	
Bengal	6—10.	Under the Bengal Pri- mary Educa- tion Act, 1919.
	6—11.	Under the Bengal (Rural) Primary Edu- cation Act, 1930.
United Provinces	6—11.	
Punjab	6—11.	
Bihar and Orissa	6—10.	
Central Provinces	7—11.	
Assam	6—11.	
Delhi	6—11.	

BUREAU OF EDUCATION, INDIA

**Proceedings of the Sixth Meeting of the
Central Advisory Board of Education in
India held at Madras on the 11th and
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- DEHRA DUN**—Ideal Book Depot, Rajpur Road.
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Imperial Book Depot and Press, Near Jama Masjid (Machhiwalan).
Indian Army Book Depot, Daryaganj.
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Superintendent, Govt. Press, Mount Road.
Varadachary & Co., Messrs. P.
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Ideal Book Depot, Big Bazar.
Parakash Educational Stores, Near Tehsil.
- MOGA**—Army Musketry Stores.
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Superintendent, Government Printing, Bihar, P. O. Gulzarbagh.
Verma's Cambridge Book Depot.
- PATNA CITY**—
Agarwala & Co., Messrs. J. N. P., Padri-ki-Havell.
Raghunath Prasad & Sons.
- PESHAWAR**—
British Stationery Mart.
London Book Co. (India), Arbab Road.
Manager, Govt. Printing & Stationery, N.-W. F. P.
- PESHAWAR CANTT.**—Faqr Chand Marwah.
- POONA**—
Dastane Bros., Home Service, 456, Rawiwar Peth.
International Book Service.
Ram Krishna Bros., Opposite Bishram Bagh.
- QUETTA**—Standard Bookstall.
- QUILON**—Associated News Agency, Big Bazar.
- RAJKOT**—Mohanal Dossabhai Shah.
- RANGOON**—Burma Book Club, Ltd.
- RAWALPINDI**—Ray & Sons, Messrs. J., 43, K. & L. Edwardes Road.
- BAZMAK**—Tara & Sons, Messrs. B. S.
- SHILLONG**—Superintendent, Assam Secretariat Press.
- SIALKOT CANTT.**—Modern Book Depot, Bazar Road.
- SIALKOT CITY**—Buckingham & Co., Booksellers & Stationers, Greenwood Street.
- TRICHINOPOLY FORT**—Krishnaswami & Co., Messrs. S., Teppakulam.
- TRIVANDRUM**—Booklovers' Resort, Talkad.
- VELLOBE**—Venkatasubban, Mr. A., Law Bookseller.

*Agents for Income-tax, Law and allied Publications only.

†Agents for Publications on Aviation only.

Proceedings of the sixth meeting of the Central Advisory Board of Education in India held at Madras on the 11th and 12th January 1941.

The Central Advisory Board of Education held its sixth meeting at Madras on Saturday and Sunday, January the 11th and 12th, 1941. The following members were present:—

1. The Honourable Sir Girja Shankar Bajpai, K.B.E., C.I.E., I.C.S., Member of the Viceroy's Executive Council, Department of Education, Health and Lands (Chairman).
2. John Sargent, Esquire, M.A., Educational Commissioner with the Government of India.
3. The Right Honourable Sir Akbar Hydari, LL.D., President of H. E. H. the Nizam's Executive Council, Hyderabad-Deccan.
4. Dr. A. F. Rahman, LL.D., B.A. (Oxon), Member, Federal Public Service Commission.
5. Rajkumari Amrit Kaur.
6. The Honourable Sir Maurice Gwyer, K.C.B., K.C.S.I., Chief Justice of India.
7. The Honourable Diwan Bahadur Sir K. Ramunni Menon.
8. Dr. Sir Zia-ud-Din Ahmad, C.I.E., Ph.D., D.Sc., M.L.A.
9. Pandit Amaranatha Jha, M.A., Vice-Chancellor, Allahabad University.
10. Dr. R. C. Mazumdar, Ph.D., Vice-Chancellor, Dacca University.
11. Dr. C. R. Reddy, Vice-Chancellor, Andhra University.
12. H. C. Papworth, Esquire, O.B.E., I.E.S., Director of Public Instruction, Madras.
13. S. N. Moos, Esquire, M.A., I.F.S., Director of Public Instruction, Bombay.
14. Dr. W. A. Jenkins, D.Sc., I.E.S., Officer on Special Duty, Education Department, Bengal.
15. J. C. Powell-Price, Esquire, M.A., I.E.S., Director of Public Instruction, United Provinces.
16. W. H. F. Armstrong, Esquire, M.A., I.E.S., Director of Public Instruction, Punjab.
17. Dr. G. G. R. Hunter, M.A., D.Phil. (Oxon), F.R.A.I., I.E.S., Director of Public Instruction, Central Provinces and Berar.
18. G. A. Small, Esquire, B.A., I.E.S., Director of Public Instruction, Assam.
19. The Honourable Shaikh Abdul Majid, Minister of Education, Sind.
20. Shamsul-Ulema Dr. U. M. Daudpota, M.A., Ph.D., Director of Public Instruction, Sind.
21. S. C. Tripathi, Esquire, B.A., I.E.S., Director of Public Instruction, Orissa.

Dr. D. M. Sen, M.A., Ph.D., Secretary, Central Advisory Board of Education in India, was also present at the meeting.

Nine members of the Board, *viz.*,

1. The Rt. Rev. G. D. Barne, C.I.E., O.B.E., V.D., Bishop of Lahore.
 2. Lady Glancy.
 3. The Honourable Sir Andrew Clow, C.S.I., C.I.E., I.C.S., Member of the Viceroy's Executive Council, Department of Communications.
 4. Lala Shri Ram.
 5. P. F. S. Warren, Esquire.
 6. Rao Bahadur Sir V. T. Krishnamachari, K.C.I.E., Dewan of Baroda.
 7. Abdur Rasheed Chaudhury, Esquire., M.L.A.
 8. J. S. Armour, M.A., I.E.S., Director of Public Instruction, Bihar.
 9. Khan Sahib Khan Shah Alam Khan, M.A., LL.B., Director of Public Instruction, North-West Frontier Province.
- were unable to attend the meeting.

2. The Proceedings were opened at 11 A.M. by the Chairman, the Honourable Sir Girja Shankar Bajpai.

3. The following items constituted the agenda:—

- I. To confirm the Proceedings of the fifth meeting of the Central Advisory Board of Education held in Simla on the 6th and 7th May 1940.
- II. To receive and consider the views of the Provincial Governments on the recommendations made by the Adult Education Committee of the Central Advisory Board of Education, 1939.
- III. To receive and consider the views of the Provincial Governments on the recommendations made by the Second Basic Education Committee of the Central Advisory Board of Education, 1939.
- IV. To receive and consider reports from Provincial Governments on recent or prospective developments in primary and adult education.
- V. To receive and consider the views of Provincial Governments and Universities in India on the question of withholding the emoluments of scholarships from the students whose parents are able to provide education without the assistance of a scholarship.
- VI. To receive and consider the report of the Committee of the Central Advisory Board of Education appointed at its meeting held in May 1940 to examine in detail the question of the adoption of a uniform scientific terminology for regional languages in India.
- VII. To receive and consider the report of the Committee of the Central Advisory Board of Education appointed at its meeting held in May 1940 to examine the question of the establishment of a centre or centres in India for the study of social service and its relation to public administration.

- VIII. To consider the desirability of having a separate School Leaving Certificate Examination in addition to the Matriculation Examination in the light of experience gained by the Provinces in this respect.
- IX. To consider the facilities that are being offered in Indian Universities to students of British Universities who have returned to India on account of the war without finishing their courses.
- X. To consider whether it is possible to adopt a uniform system of nomenclature throughout India for the designation of teachers in colleges.
- XI. To consider the desirability of setting up an Expert Committee to examine what steps can be taken in the interest of economy and efficiency to improve the planning, construction and equipment of school buildings.
- XII. To consider what practical steps could be taken by Education Authorities in co-operation with Public Health Authorities to improve the physical condition of school children by—
- (a) establishing an efficient system of school medical inspection and treatment;
 - (b) calling the attention of teachers and parents to the importance of a proper diet and providing where necessary suitable meals at school in cases of under-nourishment;
 - (c) increasing the facilities for and the time devoted to physical training on up-to-date lines.
- XIII. To receive and consider the views of the Inter-University Board on the question of the desirability or otherwise of excising undesirable passages from text-books prescribed for university studies.
- XIV. To consider the question of imparting instruction on the subject of "kindness to animals" in schools in India.
- XV. To consider the question of the adoption of a uniform Braille Code in the schools for the blind throughout India.
- XVI. To fix the date and place of the seventh meeting of the Central Advisory Board of Education.
- XVII. To consider the question of appointing a permanent sub-committee of the Central Advisory Board of Education for "Examinations".

The explanatory memoranda on items II, III, IV, V, VIII, IX, X, XII, XIII, XIV and XV of the agenda which had been circulated to the members of the Board previous to the meeting are reproduced in Appendix I.

4. *Item I.*—The Proceedings of the fifth meeting of the Board as circulated were confirmed, subject to the substitution of the words 'both of great importance' for the words 'of equal urgency' occurring in para. 8 (1) of page 4.

It was decided that henceforward the Proceedings of the Board when confirmed should be published and put on sale. The Chairman announced his intention of arranging a Press Conference at an early date with a view to securing as wide a publicity as possible for the Board's Proceedings.

5. *Items II, III and IV.*—It was resolved that (a) the information supplied by Provincial Governments be recorded and (b) the record be circulated for information and guidance to all Provincial Governments.

The Board decided that in future information should be collected not only from Provincial Governments but also from voluntary agencies with a recognised all-India status which might be in a position to supply useful data or advice in regard to specific points.

The Board felt that it would be materially assisted in discharging its function as a clearing house of information with regard to educational developments in the country as a whole if more detailed reports with regard to important matters like basic or adult education could be obtained from the responsible authorities and if these reports could be examined and, where necessary commented upon by the appropriate Standing Committees of the Board before submission to the Board itself. To achieve this object it was agreed that in future arrangements should be made for the meetings of the Board to be preceded by meetings of the Standing Committees. It was recognised that this might involve some changes in the personnel of these committees if, as is probable, it may be found convenient for them to meet concurrently.

6. *Item V.*—The Board considered the views of the Provincial Governments and Universities in India on the question of withholding the emoluments of scholarships provided out of public funds from those students whose parents are financially capable of meeting the cost of their education. It was apparent from the replies received that there was a considerable divergence of opinion on this subject. In the opinion of the Board scholarships can be divided into two categories:—

- (a) prizes awarded in recognition of outstanding scholastic distinction;
- (b) grants awarded to enable students of ability to continue their studies.

With regard to (a) the Board felt that these awards should be made entirely on merit and that the winners should be entitled to the emoluments irrespective of the financial circumstances of themselves or their parents.

With regard to (b) the Board were of opinion that here again merit should be the primary criterion, *i.e.*, no student should be eligible for any award unless he had reached the prescribed standard. Subject to this proviso those eligible candidates who cannot satisfy the responsible authorities that they are in need of financial assistance to continue their studies should be awarded Honorary Scholarships and the emoluments thereof transferred in order of merit to other eligible candidates, if any, who have established their need of assistance.

It was further agreed that the practical application of this principle would involve the framing of scales of income limits which would vary at different stages of education and would take account of financial liabilities, *e.g.*, responsibility for the maintenance or education of other children devolving on the person concerned.

The holders of honorary scholarships would be entitled to claim the emoluments in the event of a change in their financial circumstances bringing them within the prescribed income limits.

7. *Item VI.*—The Rt. Honourable Sir Akbar Hydari presented the report of the Scientific Terminology Committee, of which he was the Chairman. The report of the Committee will be found in Appendix II. The Board adopted the recommendations of the Committee subject to the following modifications:—

- (a) No. II (ii) in the Main Conclusions and Recommendations should be deleted. The great majority of the members present were of opinion that the adoption of this recommendation would introduce an unnecessary complication since the legitimate aspirations of modern Indian languages in this respect could be satisfied under (iii) which, as the Chairman pointed out, did not preclude the adoption of new words formed and evolved in accordance with the traditions and genius of a people as distinct from neologisms invented, as it were for their own sake. Rajkumari Amrit Kaur recorded her dissent from the decision of the Board.
- (b) The two main groups into which Indian languages may be divided should be Sanskritic and Perso-Arabic instead of Hindustani and Dravidian as suggested by the Committee.
- (c) The words 'Mathematical propositions and questions' occurring in recommendation No. V and in para. 12 (a) in the report to be changed to 'Mathematical processes and formulæ'.

8. *Item VII.*—The Honourable Sir Maurice Gwyer presented the report of the Social Service and Public Administration Committee, of which he was the Chairman. The report of the Committee will be found in Appendix III. A letter from the Director of the Sir Dorabji Tata Graduate School of Social Work (*cf.* Appendix IV) was also before the Board. The need for an All-India Council of Social Service with a central research institute was generally accepted. Discussion centred mainly on the question of the extent to which such a central institute should or could undertake the training of social workers. The general opinion was that since practically all the subjects covered by the term social service are included in the field of Provincial Administration, it would be impracticable for the training of workers to be carried out on an all-India basis. This practical training would best be done at Provincial centres. While, however, research should be the main function of the Central Institute, its students might be expected in the normal course to return to work in the Provinces and during their time at the Central Institute they would also require facilities for 'field work'. It would not be possible to decide the precise structure of the central organisation recommended by the Committee without more detailed information as to what is being done in the field of social service by various agencies, official and voluntary, in various parts of the country.

The Board adopted the Committee's report generally, but decided that before implementing its recommendations Provincial Governments and voluntary agencies of all-India character should be requested to furnish detailed information regarding (i) existing agencies engaged in social service in their areas (including universities), (ii) the scope of their activities, (iii) their relation to one another and the means adopted to co-ordinate their activities. Suggestions should also be invited as to ways and means of consolidating and extending the work of social service generally and particularly among women.

The Chairman announced his intention, should the replies from the Provincial Governments justify it, of calling a conference of representatives of Provincial Governments and voluntary agencies.

With regard to the letter from the Director of The Sir Dorabji Tata Graduate School of Social Work, the Board considered that until the reports from the Provinces had been received, it would not be feasible to consider the claims of any existing institution to be recognised as a central institute. It was, however, decided that in view of the very important work which the Tata Institute is doing in the field of social work it should be included among the agencies which it is proposed to consult in the matter.

9. *Items VIII and X.*—These two items were referred to a special committee consisting of Sir Maurice Gwyer (Chairman), the Educational Commissioner with the Government of India, Sir Zia-ud-Din Ahmad and the representatives of Provincial Governments and the Inter-University Board. This Committee met on the afternoon of January 11th and submitted its report to the Board at its meeting on January 12th. The following recommendations made by the Committee were adopted by the Board :—

Item VIII.—(a) It is desirable on educational grounds that there should be only one examination at the termination of the normal high school course, *i.e.*, there should not be separate Secondary School Leaving Certificate and Matriculation Examination.

(b) In order to meet the varied aptitudes of the pupils and the circumstances of the vocations and professions which they may be destined to enter, this examination should cover as wide a field as possible.

(c) The Universities could and should find in such an enlarged examination the necessary qualifying test for admitting students to their courses of studies.

Item X.—(i) It is most desirable to adopt uniform designations for the teaching staff of universities and of the constituent or affiliated colleges of universities.

(ii) The indiscriminate use of the title 'Professor' by teachers of all grades in colleges and universities had well-nigh made the term devoid of its essential connotation.

(iii) The following designations are suggested :—

(a) For University teachers :—Professor, Reader, Lecturer, Demonstrator, and Tutor (the designation 'Tutor' is intended to include a teacher whose contact with students is not limited to the lecture-room, but extends to individual teaching and guidance given personally or in the company of not more than two or three students at the same time. It should be made clear that a Tutor need not necessarily be a separate grade of teacher; *e.g.*, a Lecturer may be a Tutor also).

(b) For College teachers :—Lecturer, Demonstrator and Tutor with such variants or additions as senior or junior Tutor, senior or junior Lecturer.

(iv) While the above represents the objective which should be aimed at, it is probable that it can only be achieved progressively. The following additional recommendations are accordingly submitted:—

(a) That in the transitional period the designation 'Professor' should in no case be given to persons unless:—

(i) they occupy a University Chair; or

(ii) (in the case of a college teacher) they are of outstanding merit and scholarship and are entrusted with the responsibility of organising and conducting teaching work in a subject to the standard of an Honours or Post-graduate degree (a Board jointly representing Government and University could and should during the transitional period be empowered to decide who are entitled to the status of Professor as above defined).

(b) That Universities should not henceforward recognise the title of Professor except in the case of persons above described but in the case of present incumbents this principle would have to be applied with a good deal of elasticity and its application should be left to the discretion of the University Authorities themselves.

(v) There are certain institutions which have a quasi-University status, *e.g.*, the Indian Institute of Science, Bangalore. The principle above suggested ought to apply to them as though they were universities. If any dispute arises as to the status of any particular institution, it should be determined by the Government concerned, whose decision should be final.

10. *Item IX.*—The Board had before them the summary of the information supplied by the Universities in India as to the facilities offered by them to students of British Universities who had returned to India on account of the war without finishing their studies. The Board noted with appreciation the prompt action taken by all the Indian Universities in the interest of these students. It was decided that, (i) the concessions which the Indian Universities had given to students of British Universities who were compelled to return to India in 1940 on account of the uncertain European situation should be brought to the notice of the British Universities, (ii) the High Commissioner for India should be warned that there would probably be a rush of Indian students to British Universities soon after the war, and that Indian Universities as well as Indian public opinion would expect British Universities, in their turn, to make special arrangements to meet the needs of these students on lines similar to those followed by Indian Universities in the case of students returning from England. It was decided to call the attention of the Inter-University Board to this aspect of the matter.

11. *Item XI.*—The Board agreed as to the importance of taking steps to ensure that school buildings should be designed in future with closer attention to modern scientific standards in regard to accommodation, lighting, sanitation and ventilation and with due regard to economy. The Board were aware that a certain amount of experimental work has already been done in this sphere in different parts of India but decided that in order to collate the results of these experiments and make them available

for the authorities concerned as well as to consider problems which have not yet been tackled, it would be desirable to appoint a Committee consisting of the Provincial Directors of Public Instruction or their nominees, and representatives of some of the larger States in India, with the Educational Commissioner with the Government of India as its Chairman, to go into the question and to submit a report. This Committee will have power to co-opt and/or consult such experts as they may think desirable.

12. *Item XII.*—The Board considered the memorandum submitted on behalf of the Central Advisory Board of Health as the outcome of the discussion at its third meeting held in Poona in July 1940. The Board noted with satisfaction that their Chairman, who is also Chairman of the Central Advisory Board of Health, proposed to appoint a Joint Committee to consider the steps which might be taken to improve the physical condition of school children. The Board decided to leave to the Chairman the selection of the educationists to serve on the proposed Joint Committee.

The Board felt that pending the report of the Committee a considerable advance might be made if the courses for teachers in training colleges and schools were expanded to include training in practical hygiene.

13. *Item XIII.*—The Board noted that the Inter-University Board would consider the question of the excision of undesirable passages from text-books prescribed for University studies at its meeting to be held at Trivandrum on the 15th and 16th January 1941. Consideration of this item was accordingly postponed until the next meeting.

14. *Item XIV.*—The Board agreed to commend to the attention of Provincial Governments the need for arranging specific instruction in schools on the subject of 'kindness to animals'.

15. *Item XV.*—The Board felt that the question of adopting a 'Uniform Braille Code' in the schools for the blind in India is a matter which calls for expert advice. It accordingly asked the Educational Commissioner with the Government of India to appoint a small committee of experts to go into the question and prepare a report for the Board at its next meeting.

16. *Item XVI.*—The Right Honourable Sir Akbar Hydari on behalf of H. E. H. the Nizam's Government invited the Board to hold its next meeting in Hyderabad-Deccan. The invitation was accepted with gratitude. The date of the meeting was left for the Chairman to decide.

17. *Item XVII.*—The Board asked Dr. Sir Zia-ud-Din Ahmad to submit a memorandum stating specifically the issues which in his opinion should be referred to the Committee he had in mind.

APPENDIX I(a).

MEMORANDUM ON ITEM II OF THE AGENDA PLACED BEFORE THE CENTRAL ADVISORY BOARD OF EDUCATION.

Views of the Provincial Governments on the recommendations made by the Adult Education Committee of the Board, 1939.

At their meeting held in May 1940, the Central Advisory Board of Education considered the report of their Adult Education Committee. They adopted all the recommendations of the Committee except Nos. 5, 10, 12, 13, 19, 21, 22, 24 and 25 with regard to which they expressed their own views which are given in the Proceedings of that meeting and also in the preface to the Committee's report. They also decided that a copy of the report together with their decisions on it, should be forwarded to the Provincial Governments for consideration and such action as they might consider necessary. This was done and the Provincial Governments were asked to submit their views on the various issues raised in the report. The information received from them is submitted herewith to the Central Advisory Board of Education.

Madras.—The Provincial Government have stated that in view of their limited finances it is not possible for them to organise directly or to aid any scheme of adult education for the whole Presidency. The general position is as explained in the note for item 4 of the agenda.

Bombay.—The Provincial Government have no remarks to offer on the Committee's recommendations as the general question of adult education is under their consideration, but they have forwarded the remarks of their Director of Public Instruction which are given below:—

Recommendation No. 1.—(Provision of facilities for adult education on the widest scale and the introduction of a free and compulsory system of primary education). It is not the non-recognition of the urgency of these measures but the paucity of funds that has stood in the way of expansion of adult or primary education on a country-wide basis. The Committee rightly point out that whatever may be achieved by the adult education movement the early establishment of a compulsory system of primary education is the only effective and permanent solution of the problem of illiteracy. In this province this has been the general policy adopted.

Recommendation No. 2.—(Immediate attention to the problem of the removal of illiteracy). Agrees that main efforts should be concentrated for the time being on literacy.

Recommendation No. 3.—(Literacy a means to further education and not an end in itself). The question of providing special facilities for those made literate and to keep them in touch with reading and writing is under the consideration of Government.

Recommendation No. 4.—(Persuasion and pressure on illiterates). So far a purely voluntary system of adult education has been adopted in the province. Pressure on adults is neither possible nor practicable. Any such move would do more harm than good.

Recommendation No. 5.—Agrees with the Board that it is premature, at the present moment, to appoint a central committee to co-ordinate efforts in various provinces.

Recommendation No. 6.—(Instruction intelligible and interesting and closely related to occupation). Entirely agrees. The present position is

that some of the adults dislike being treated as children and being made to read lessons on topics meant only for little children.

Recommendation No. 7.—(Easiest way of approach through subjects of vocational character). Agrees.

Recommendation No. 8.—(Boys under the age of 12 and those attending day schools not to attend adult centres; separate classes for boys between 12 and 16, no restrictions for girls). Agrees with the Committee so far as boys are concerned but does not agree that no such distinction should be observed in the case of girls.

Recommendation No. 9.—(Every encouragement to voluntary agencies). Efforts are being made in the province to secure the help of voluntary agencies and it is proposed to start District Associations for Adult Education. Agrees with the Committee that safeguards will have to be laid down to prevent such agencies indulging in political and religious propaganda.

Recommendation Nos. 10, 12 and 13.—It is doubtful whether it would be possible or advisable to make social service obligatory on all university students and high school pupils.

Recommendation No. 11.—(Extension in the number and scope of institutions providing technical, commercial and art instruction and inclusion of subjects of a cultural or recreational kind in the curricula). Agrees and suggests that the attention of the Committee of Direction for Technical Education should be drawn to this recommendation.

Recommendation No. 14.—(Use of mechanical aids to learning such as the radio, the cinema, the gramophone and the magic lantern). The recommendation is excellent but main difficulty will arise in regard to finance. The Committee seem to forget that most of our adult education classes are in villages and it is difficult to make use of such elaborate apparatus for all such classes. The Government have, however, at present a scheme of village publicity by means of cinema outfits and when that scheme materialises it may be possible to make use of the cinema to some extent.

Recommendation Nos. 15 and 16.—(Teachers and training). Agrees with the recommendation that steps should be taken, so far as possible, to have short-term training courses for such teachers and that care must be taken to select teachers of the right temperament.

Recommendation No. 17.—(Inspectors and Organisers for adult education work). The appointment of whole time inspectors and organisers for such classes is certainly desirable. The appointment of a whole-time Special Literacy Officer has helped the local Bombay City Committee in organising and carrying on the work of adult literacy. For the rest of the province separate arrangements do not exist.

Recommendation No. 18.—(Paid workers). Agrees with the recommendation. The experience in the province is that unless reasonable remuneration is given to people undertaking adult education work, the classes are not likely to flourish.

Recommendation No. 19.—(Libraries in rural areas). The provision of libraries and the preparation of suitable literature is under the consideration of Government.

Recommendation No. 20.—No special remarks are called for.

Recommendation No. 21.—The suggestion regarding the levy of a tax on employers of labour is a question of general policy. For the present not much difficulty is experienced if large employers of labour are approached for help.

Recommendation No. 22.—(Government Departments to see that their staffs are literate). Agrees with the Central Advisory Board of Education that it is difficult to enforce the recommendation of the Committee.

Recommendation No. 23.—(Authority responsible for adult education). Agrees that the Education Department should be the controlling authority. The general policy adopted in the province has been to pay grants only through the Education Department.

Recommendation No. 24.—No remarks.

Recommendation No. 25.—(Establishment of a Bureau to collect and distribute information). It is premature at the present moment to consider the question of establishing a Central Bureau for collecting and publishing information. The Provincial Board for Adult Education can undertake this work.

Recommendation No. 26.—The question of amending the census returns of literacy is under the consideration of Government.

United Provinces. Recommendation Nos. 1 and 2.—The Government are already providing facilities for adult education and for the introduction of compulsory primary education so far as funds of the province permit.

Recommendation No. 3.—In this province great stress is laid on propaganda to combat illiteracy and the following means have been adopted in this direction :—

- (i) Observance of the literacy day once a year.
- (ii) Publication of the literacy posters and handbooks.
- (iii) Meetings on the market days in the rural areas by the adult school and vernacular school teachers to create a desire in the villages to become literate.
- (iv) Publicity of the work done under the Education Expansion scheme.

Recommendation No. 4.—At present the attendance in the adult schools is wholly voluntary. The people who get bonus and teachers especially appointed for this work persuade illiterates to undergo instruction but they come across tremendous difficulties. Few villagers are enthusiastic to become literate and most of those who do attend the adult schools do so reluctantly under moral persuasion. In a couple of years when all those, who are willing to become literate voluntarily, have been made literate, the necessity of some pressure on unwilling illiterates to undergo instruction may arise. The ways and means to achieve the object would then be explored.

Recommendation No. 5.—No remarks.

Recommendation No. 6.—The curriculum of the adult schools and the form in which instruction is at present given is intelligible and interesting to the students. The Provincial Adult Education Committee, however, recently appointed a sub-committee of educationists to recast the curriculum. This curriculum is under consideration and it will be adopted next year. The new curriculum is more closely related to the occupation and

personal interests of the pupil and to the social and economic conditions under which he lives.

Recommendation No. 7.—The new curriculum has kept in view the suggestion that the easiest way of approach to many adult students may be through subjects of a vocational character. It is expected that after the curriculum has been introduced and its results have been observed, the Education Department would be in a position to develop the technique of imparting literacy through vocational training.

Recommendation No. 8.—(a) In the adult schools the lower age limit for admission is 11, which is only a year less than that recommended by the Committee.

(b) No boy who is in a day school is allowed to join an adult school.

(c) The boys under 16 are taught in separate classes and are not allowed to attend the classes for the adults. In the case of girls no rigid restrictions about age are observed but few women come forward to take advantage of these facilities.

Recommendation No. 9.—Support of voluntary agencies is being enlisted in running the scheme of adult education. The Co-operative and Jail Departments are also co-operating in the work of adult education.

Recommendation Nos. 10, 12 and 13.—No remarks.

Recommendation No. 11.—The question of an extension in the number and scope of institutions providing technical, commercial and art instruction is being considered by the Provincial Government.

Recommendation No. 14.—A scheme of visual education is under consideration.

Recommendation No. 15.—A scheme for training teachers for adult schools is under consideration of the Provincial Adult Education Committee.

Recommendation No. 16.—A large number of the workers in this province are the village school teachers who take up adult education in their spare time. They are already trained. Steps are being taken to include the technique of teaching adults in the Normal Schools so that the village school teachers may do this work more efficiently.

Recommendation No. 17.—The question of appointment of inspectors and organisers to supervise the work in connection with the campaign against illiteracy will be considered if and when funds permit.

Recommendation No. 18.—This Province has not depended on unpaid service for the work in connection with Adult Education.

Recommendation No. 19.—This Government has already opened a large number of libraries and reading rooms and has also supplied free of cost text books to the pupils.

Recommendation No. 20.—A special scheme for the expansion of facilities for adult education among women has been prepared and it is hoped to bring it into operation in the near future.

Recommendation No. 21.—So far the work has been confined to villages. Attempt was, however, made to secure the co-operation of the factories and mills for making the labourers employed therein literate but its response has not been encouraging. Government have however started Social Welfare Centres, etc., in important industrial towns where adult schools have been started.

Recommendation No. 22.—This recommendation is being brought to the notice of all heads of departments with the request that the desirability of giving every encouragement to their staff to become literate may be considered. The Police Department is considering the question of making all Constables and Chowkidars literate. A scheme has been prepared and will be put into operation as soon as circumstances permit.

Recommendation No. 23.—The adult education movement in this province is under the Education Expansion Officer who is directly under the control of the Director of Public Instruction and is working with the full co-operation of the officers of the Education Department. There is a Provincial Adult Education Committee to guide the movement and District Adult Education Committees are being formed to keep in touch with the local conditions.

Recommendation No. 25.—The question of establishing a Bureau for the adult education is being referred to the Provincial Adult Education Committee and the views of this Government will be communicated later.

Recommendation Nos. 24 and 26.—No remarks have been offered.

Punjab.—Recommendation No. 1.—Facilities for the anti-illiteracy aspect of adult education have been provided in the province on a fairly wide scale and full attention is being devoted to this vital educational problem. Free and compulsory primary education is already in force in a large number of rural and urban areas and was introduced in the province long ago.

Recommendation No. 2.—The literacy work in the province has been extended from the year 1940-41. 20 paid workers in each district have been engaged, special training courses have been organised for such teachers, and two supervisors have been appointed in each district. A total sum of Rs. 98,800 has been allotted during the year 1940-41 for expenditure in connection with the anti-illiteracy campaign. 308,000 copies of 7 primers and 56,500 copies of 15 follow-up books were purchased. These books and primers are being distributed free and freight is also being paid by the Education Department.

Recommendation No. 3.—Literacy work is being carried out vigorously in the province. A large amount of follow-up literature as stated above has been produced and stocked by the Education Department and is being issued free of cost and free of freight to all who apply for such books for the use of newly-made literates. Besides this, 600 travelling libraries containing 54,565 books have been organised and distributed among the 29 districts of the province for the special use of the adults. These are in addition to the 1,594 village school libraries located in the vernacular upper middle schools situated in rural areas.

Recommendation No. 4.—The movement at the present moment is entirely voluntary. No pressure or coercion is being employed. The campaign hinges on persuasion and propaganda.

Recommendation No. 5.—One whole year was devoted to experimental work in bringing out suitable reading material and in the choice of the appropriate methods of teaching the adults before the campaign was started on a province-wide scale.

Recommendation No. 6.—Very careful consideration was given to all the points mentioned in the recommendation and fresh experience is being

fully utilized. The literature supplied is interesting and intelligible and bears close relation to the interest, bent of mind, occupation and environment of the adult readers.

Recommendation No. 7.—The suggestion of the Committee that it is unnecessary and inexpedient in view of the circumstances prevailing in India to draw any rigid distinction between adult education in the strict sense and technical, commercial or art instruction or to regard the latter as falling outside the sphere of the former and that the easiest way of approach to many adult students may be through subjects of a vocational character has been noted.

Recommendation No. 8.—In the province, no pupil under fourteen years of age is admitted to an adult school. Boys attending ordinary day schools are generally not admitted to the evening adult classes. The classes for boys are held separately. Girls are exempted from the operation of this general rule and are allowed to join adult classes for women.

Recommendation No. 9.—In the Punjab, all facilities and full encouragement are given to voluntary agencies.

Recommendation Nos. 10, 12 and 13.—The suggestions of the committee that (i) Universities should be urged to expand and popularize the work of their extra-mural departments and provide opportunities for adult students of exceptional ability to take a university course, (ii) Social Science in a practical form should be taught in all universities and (iii) the possibility of making a period of Social Service obligatory on all students in universities and pupils in the upper forms of high schools should be carefully explored, are being brought to the notice of the Punjab University for such action as they may consider necessary.

Recommendation No. 11.—The suggestion of the Committee regarding extension in the number and scope of institutions providing technical, commercial and art instruction has been noted for future guidance and necessary action in the matter.

Recommendation No. 14.—The suggestion regarding the use of cinema, etc., will be considered in connection with the adult education programme for the year 1941-42. The radio, the gramophone, and the magic lantern are already being used, wherever possible, for the education and entertainment of the adult literates.

Recommendation No. 15.—Training in the teaching of adults forms now an integral part of the revised syllabuses recently prescribed for and introduced in the normal schools of the province. The theory and practice are both included and quite the best part of the work is being done by these schools.

Recommendation No. 16.—Twenty whole-time teachers and two supervisors in each district have already been employed. The paid teachers have been given a special short course of training.

Recommendation No. 17.—The Inspector of Training Institutions and the Inspector of Vernacular Education, Punjab, have already been appointed to carry on the adult education and adult literacy work in addition to their own duties. The necessity for the appointment of whole-time inspectors and organisers has not yet been felt.

Recommendation No. 18.—Literacy work has been carried on so far on a voluntary basis but, with effect from the year 1940-41, paid workers

as mentioned in (2) above have also been engaged. It is agreed that more paid workers will be necessary in the future.

Recommendation No. 19.—There are 1,594 village school libraries for the adults in the province. In addition, 600 travelling libraries scattered fairly evenly all over the province have been established from the year 1940-41. Suitable literature is also being produced and every encouragement to authors is being afforded by the Education Department.

Recommendation No. 20.—The suggestions of the committee regarding expansion of facilities for education of adult women have been noted. Work among women has already been started through voluntary agencies and the pupils of secondary schools and colleges in the province.

Recommendation No. 21.—A good deal is being done by industrialists in this province but more can be done and this will be attempted gradually in the years to come.

Recommendation No. 22.—(Government departments to see that their staffs are literate). Necessary instructions in the matter have already been issued, in so far as the Education Department is concerned. Steps are being taken to secure the co-operation of the other departments of Government.

Recommendation No. 23.—The whole movement is centred in the Education Department. Literacy and Post-Literacy Leagues are being gradually established in divisional and district headquarters, tehsils and groups of villages. The organisation is in the process of evolution.

Recommendation No. 24.—(Financial assistance from Central Government). This does not require any comments from the Provincial Government.

Recommendation No. 25.—In the present state of finances it has not been considered advisable to establish a provincial Bureau.

Recommendation No. 26.—It is suggested that a suitable amendment in the census test of literacy, *viz.*, ability to read and write a letter, should be introduced so as to classify the adults able to read and also to write a little as literates.

Central Provinces.—The main conclusions and recommendations of the Committee traverse a wide field and would have to be scrutinised in relation to (i) the circumstances obtaining in the province and (ii) the financial position of the province, before any particular comments on the issues raised could be made.

Orissa.—While the Provincial Government are in general agreement with many of the recommendations of the Committee, they are unable to give their views on the merits of each individual recommendation. To ensure even a partial success of the scheme of literacy adumbrated by the Committee the work must have the voluntary support of the public and the illiterates in whose interest the scheme is proposed to be started. The experiment in adult education on a voluntary basis has not so far been successful in the province. The Provincial Government however consider that the recommendations of the Committee will undoubtedly be of much help in any planned scheme of adult education which Orissa is not in a position to undertake owing to lack of money and of sufficient public support.

Coorg.—The Local Administration has no views to offer on the recommendations made in the Committee's report. The Administration follows Madras in matters relating to education.

Assam, North-West Frontier Province, Sind, Delhi, Ajmer-Merwara and Baluchistan.—Have not commented on Committee's recommendations but have stated general position about adult education.

(See memorandum on item 4 of agenda.)

Bengal and Bihar.—Replies have not been received though the Bihar Government stated that it would be sent as soon as possible.

APPENDIX I (b).

MEMORANDUM ON ITEM III OF AGENDA PLACED BEFORE THE CENTRAL ADVISORY BOARD OF EDUCATION.

Views of the Provincial Governments on the recommendations made by the Second Basic Education Committee of the Central Advisory Board of Education, 1939.

• At their meeting held in May 1940, the Central Advisory Board of Education had before them the report of the Committee which they appointed in December 1938, to consider further issues arising in connection with the system of basic education such as its relation to other branches of education and the financial problems implicit in its adoption. They adopted all the recommendations of the Committee except nos. 7 and 8, with regard to which they expressed their own views, which are given in the Proceedings of that meeting and also in the preface to the Committee's report. The Board also desired that a copy of the report, together with the decisions of the Board thereon, should be forwarded to the Provincial Governments for consideration and such action as they might consider necessary. This was done, and the Provincial Governments were asked to forward their views on the issues raised in the report. The information received from them which is either in the form of views on the recommendations or general position about basic education in the province, is submitted herewith to the Central Advisory Board of Education.

Madras.—The Wardha scheme of education, as such, has not been introduced in the Presidency. The syllabuses for elementary schools were revised during the year 1939-40 and under the revised syllabuses "handicrafts" and "pre-vocational work" have been made compulsory in lower and higher elementary schools respectively.

Bombay.—*Recommendation No. 1.*—The Government of Bombay share the following views of their Director of Public Instruction.

"I agree with the conclusion that it will not be possible for a long time to come to provide Nursery schools. As it is, it is found difficult to find women teachers for the ordinary primary schools. At present efforts are being made to train as many women teachers for the lower standards of the primary schools and to give them in the training institutions some grounding in Kindergarten work.

In this province, unlike other provinces, the primary elementary course is spread at present over a period of five years, the first year of which is meant for infants. Provision exists for infants in the schools, and the age of admission is 6+ and not 7+. Moreover under the rules provision exists for the admission of children even under 6 with special sanction of the Administrative officer. In framing the basic school course the existence of the infants class in the schools has been taken into account and simple activities have been laid down for the infants class mainly with a view to developing habits in children. The lack of women teachers, however, is the main handicap."

Recommendation No. 2.—(Basic education course of 8 years—from the age of 6 to 14 years. Junior stage: 5 years; senior 3 years). The general

scheme suggested has been adopted in the province. The elementary course for the present consists of the infants class and four standards and the higher stage of three years.

Recommendation No. 3.—(Transfer of children after the conclusion of junior basic stage). Though the original scheme of basic education did not contemplate diversion of children to any other school till after the completion of the full basic course, there is nothing in the scheme adopted in Bombay to prevent pupils from the junior basic school migrating to a secondary school or a trade school after completing the elementary course, if the work is up to the mark.

Recommendations Nos. 4 & 5.—(Variety of courses in the various types of post-primary school, and special arrangements for those desirous of continuing their education). If the basic school becomes the normal type of school it will be necessary to make arrangements in post-primary schools to assimilate those who have completed (a) the junior basic course and (b) the full basic course. The Provincial Government agree in principle that, as regards the former, arrangements should be made to prepare the pupils for entry into industrial and commercial occupations as well as into universities. As regards the latter, arrangements will have to be made for special tuition in subjects which are not included in the curriculum of senior basic schools in order that pupils may be enabled to enter universities. The Government have not, however, examined in detail the type or duration of the courses that may have to be introduced in post-primary schools.

Recommendation No. 6.—(Suitable courses for girls attending senior basic schools). The Provincial Government share the following views of their Director of Public Instruction:—

“The recommendation made that for girls attending senior basic schools special courses should be framed is unexceptional. The Committee recommend the inclusion of such subjects as Cooking, Laundry work, Home crafts, First Aid, etc. I do not understand how it will be possible for such schools to be the normal type of schools. Nowhere in the Committee’s report has the question of cost been considered. It may be possible to have a course of this type in some well-endowed schools but I fail to understand how it can be made possible to have such schools on a country-wide basis.”

Recommendation No. 7.—(Appointment of a Standing Committee). No remarks are called for.

Recommendation No. 8.—(Grant from central funds). So long as the scheme of basic education is in the stage of research and experiment—and it cannot be disputed that this is its position now—the Central Government would appear to have some responsibility in the matter. In this connection, the Government invite attention to item 12 of the Federal Legislative list. It is not fair that the Provincial exchequer should be called upon to meet in full the cost of the experiment. The Central Government should be moved to meet at least a portion of the cost. Once the scheme has passed the experimental stage the Provincial Governments would naturally not expect the Central Government to continue to bear any portion of its cost.

Recommendation No. 9.—(Central agency in each province for disposal of marketable articles produced in schools). Considerable difficulty has

been felt in the province in disposing of the yarn turned out by the basic schools. The Jail Department is not prepared to use it. Even the All-India Spinners' Association has refused to purchase it. In these circumstances, no useful purpose will be served by the appointment of a central agency.

United Provinces.—The Provincial Government agree with all the recommendations except Nos. 1 and 8 with regard to which they expressed the following views:—

Recommendation No. 1.—The Committee seems to have mixed up the terms pre-basic, 'Nursery' and 'infant classes' of the primary schools. From the point of view of this province infant class is very important. Here the children come at the age of 6 in compulsory areas and from 5 to 6 or 7 in non-compulsory areas. The number of children is always very large and therefore this does come within the purview of pre-basic as termed by the Committee. It is considered that the present infant classes of primary schools in this province should come within the purview of basic education and it is from that point of view that in these provinces arrangements have been made to convert the infant class on basic lines. From November 1940, such classes are being started.

The Committee observes on page 2 of the report that "model infants schools should be started by Provincial Governments where the correlation of Kindergarten instruction with the curriculum of basic schools may be studied and developed". This has already been done at the Basic Training College, Allahabad, where the urban section has been opened from this point of view. Women teachers for basic schools are also being trained.

Recommendation No. 8.—The Committee deals with the question of finances on pages 5 and 6, item 11, and suggests that the productive material of the schools may be sold and the proceeds deposited in the Treasury to meet the expenses of education. In this province the idea of self-supporting schools has already been rejected and self-sufficient schools are being insisted on where the material may be supplied by the school itself. Illustrative teaching aids, *tat patties*, material for art work can very easily be supplied by the school itself and by this method it is hoped that the expenditure cannot materially increase by the introduction of basic system of education. Articles produced in schools may be given away to children. At present the yearly budget of a farmer is not more than Rs. 50 to Rs. 60. If it can be possible to give in the shape of cloth (produced out of the yarn spun by the children) it would be adding materially to the farmer's budget. This can induce the parents to send their children to schools. One point that has been missed by the Committee is the attendance of children in schools. They are taken away for field labour as soon as they are able to help their parents and therefore it is necessary to provide for some incentive to the parents to keep their children at schools. If they see that the children at school would be able to bring back home something substantial it is likely that they may leave their children at schools. Besides in the lower classes marketable articles will not be produced in schools. In higher classes, *i.e.*, V to VII, marketable articles could be produced. But as at present basic education is being introduced in lower classes the question of marketing the articles does not arise in this province.

The general position about basic education in the province is explained below:—

In August, 1938 the Basic Training College, was started at Allahabad to train teachers who would in their turn, after completion of the course be sent out to the Basic Training Centres at the head-quarters of each Inspector's circle to train teachers from the District and Municipal Board schools to start instructions in class I of primary schools on Basic lines. A similar Training Centre was opened at Benares for women which was later transferred to the Basic Training College, Allahabad.

Forty-five men graduates and 28 girls were admitted to the Training College.

In January, 1939 a course was started at the Basic Training College to train 98 Craft teachers, drawn from the vernacular schools of the province, to strengthen the staff of all Refresher Course centres.

It was decided by Government that the United Provinces scheme would not aim at self-supporting schools, but as much material as possible for the actual craft work should be made in the school. For this purpose paper-making was introduced and experiments conducted in manufacturing paper for art and craft purposes at the schools themselves and thus help to reduce the cost. In the same way spinning and weaving aimed at providing the articles required in the schools. Brushes were improvised from bamboo shoots with the ends teased out and the ordinary bazaar powder colour, such as is used in Holi, when mixed with water and fixed with a little gum arabid (babool gond) proved an excellent and very cheap medium for pattern making and self-expression for the children. Pottery was also introduced on the coil system and the containers for the paints and other necessary articles made. Gardening, bee-keeping and similar activities also formed part of the training together with manipulative and illustrative use of card board in various forms and for various purposes—including book craft as a basic craft. The College serves not only as a training ground but also as a laboratory for experiments and it is here that the curriculum is gradually being worked out and the necessary text books and suggestions for teachers prepared. Art forms the basic of all crafts.

With this staff trained at the Basic Training College, seven Refresher Course centres were opened from May 1939. Six graduates and 14 craft masters formed the staff at each centre. 250 District and Municipal Board teachers were deputed to each of these centres. These courses last for three months.

In the first course 1,720 District and Municipal Board teachers were trained and with them from the month of August 1939, 1,700 class I on basic lines were opened throughout the province. The second and the third courses also trained about 3,400 teachers and by February 1940, about 5,000 schools with class I on Basic lines were opened throughout the province. The average comes to 90 schools in each District Board and selected primary schools in each Municipal Board. From February 1940 arrangements were made for training the teachers for opening class II in those schools where Basic Education was introduced in class I.

Another batch of men and women pupil-teachers were admitted to the Basic Training College in July, 1939. They passed out in April and from July 1, 1940, this new batch was utilised in training the District and

Municipal Board teachers at the various centres. Now from July, 1940 there are eleven graduate teachers at each centre. The 98 craft teachers trained were withdrawn from the Refresher Course centres and sent back to their districts to work as Supervisors of Basic schools. The best of these have been appointed as teachers in Model Schools attached to Government Normal Schools for boys and in Central Training Schools.

The graduates who were trained in 1938-39 have been called back to the Basic Training College from July, 1940 to learn the technique of teaching for classes III and IV and to work out the details of the syllabus. They will finish their training in December, 1940.

The women trained at the Basic Training College were sent to Girls' Government Normal Schools to teach in the Model Schools attached to the Government Normal Schools on Basic lines. They have also been sent back to the Basic Training College from July, 1940 and their places have been taken by the women teachers who passed out in April, 1940 from the Basic Training College.

One teacher from each Government Normal school (both from boys' and girls') and one Drawing Master from each boys' Normal School were given Refresher Course training at the Basic Training College. With the help of these teachers arrangements have been made to introduce the scheme in Normal Schools as well. The Model Schools attached to the Government Normal Schools are being staffed with the craft teachers trained at the Basic Training College. The aim is to gradually introduce the scheme in all the Normal Schools so that the teachers may be trained directly from the Normal Schools for opening Basic Schools.

The inspecting staff too is being gradually called to the Basic Training College for training. At present 49 Sub-Deputy Inspectors have already been trained and 48 are undergoing training for three months. Within two years all the Sub-Deputy Inspectors will come to the Basic Training College for training so that they may be able to supervise the work of Basic Education in their various districts.

So far 8,622 teachers have been trained and 4,738 schools have started teaching class I on Basic lines, class II, has started in nearly half. At present Government wishes to complete these primary schools up to class IV before launching the expansion to other schools of the province. From November, 1940, infant classes attached to Basic schools are also being converted on basic lines. Thus many schools have three classes on basic lines—classes infants, I and II. From July, 1941, class III will be gradually introduced. The Refresher Courses will go on training teachers and by July, 1942, five full classes will be working in the Basic schools. By the beginning of January, 1943, there will be about 5,000 full primary schools working on basic lines.

Text books and suggestions for teachers giving details of various subjects in the curriculum are being prepared at the Basic Training College and arrangements have been made for their publication.

Experiments at erecting cheap buildings are also being carried out. It is possible to set up an outdoor school with thatched class rooms and a store room for a primary school at a cost of about Rs. 250 to Rs. 300 instead of spending Rs. 6,000 on buildings. Such a school building has been in use at the Basic Training College for more than two years and

seems to be quite suitable for all seasons. This is now being tried in some districts.

Arrangements are being made for starting Refresher Courses for women teachers in primary schools for girls from July 1941.

Punjab.—The province has not adopted the system styled in the Wardha scheme as "Basic Schools".

Central Provinces.—Conclusions (2) and (3) of the Second Wardha Education Committee are broadly identical with the conclusions (2) and (3) of the First Wardha Education Committee and the Provincial Government agree with them. The other conclusions of the Second Wardha Education Committee mostly relate to pre-basic and post-basic education and as such, can have only an academic interest at the present stage of the progress of basic education in the province. No particular comments on the conclusions can, therefore, be offered so far as this province is concerned, and it can only be stated on *a priori* grounds that the Provincial Government are in general sympathy with the Board's decisions on them.

The report of the recent development in the introduction of basic education in the province is given below:—

In 1938-39 the Provincial Government accepted the basic syllabus prepared by the Zakir Hussain Committee subject to the reservation that the financial implications of its practical introduction should be examined. A Conference of the representatives of the local bodies was therefore convened in October 1939 with a view to enabling them to form an adequate idea of the financial implications. As a result of the deliberations, it was found that the local bodies were not prepared to undertake the full financial responsibility involved in the practical introduction of the syllabus. The Provincial Government, however, had already started the Vidya Mandir (Basic) Training Institute for the purpose of training the Government normal school staff so that it might in time impart training in the basic syllabus at the normal schools to primary school teachers. This institution was designed for a specific and limited purpose and this purpose (*viz.* the training of the Government normal school staff) having been partially accomplished—half of the staff of the school was trained—it was closed in April 1940.

As it was clear that the local bodies were not in a position to start basic primary schools on any appreciable scale, it was considered that their demand for teachers trained in basic education would be fully met by two basic normal schools. Accordingly, the Vidya Mandir Training School at Wardha was converted into a Basic Normal school and another Basic Normal school was opened at Seoni in July 1940, both of which are now functioning. Government recently took over a limited number of primary schools in the Wardha tehsil (38 in all) under their control, where the introduction of the basic syllabus is being experimented with under the direct guidance of officers of the Education Department. It is also proposed to take over in 1941-42 a limited number of primary schools in the Seoni Tehsil with a view to introducing the basic syllabus on an experimental basis in the Hindi-speaking area.

As regards the disposal of the produce of the basic schools, Government have as an experimental measure decided that the yarn spun in the Basic schools should be sold to the mills at the market price of mill yarn, the loss if any to be borne by Government during the period the experiment

continues (up to the 31st March 1941 for the present). The results of the experiment are calculated to furnish the data necessary for the proper appreciation of the financial implications involved in the practical introduction of the basic syllabus. It is yet too early to judge the results of these experiments definitely.

North-West Frontier Province.—Four teachers have been given training in the system of "basic" education and have started work in two village schools. If their work proves successful, the scheme will be extended.

Sind.—The question of the introduction of the Wardha scheme was referred for consideration to the Sind Education Reorganisation Committee who have not submitted their report. The views of the Provincial Government on their recommendations will be communicated later.

Orissa.—The recommendations of the Committee in regard to the method of improvement of basic education are helpful and have been brought to the notice of the Board of Basic Education. The Provincial Government have no comments to make on the recommendations except that the basic schools being primarily intended for rural areas it would be impossible to get voluntary agencies to start pre-basic schools of efficient type as recommended by the Committee.

A scheme of basic education was started in the province in 1939-40 purely as an experimental measure. Although it is too early to express any definite opinion about the utility of the scheme, the income of the institution has been trifling in comparison with the expenditure involved in it. Judged from the economic aspect the scheme has so far been a failure.

Coorg.—The local Administration has no views to offer on the recommendations made in the report of the Second Wardha Education Committee. The Administration follows Madras in matters relating to education.

Delhi.—In connection with the "basic" education scheme, a school has been opened through the agency of the District Board and is reported to be doing satisfactory work. The scheme for the re-organization of education in the rural area has been found on being worked out, to be so expensive as to be clearly impracticable in present financial conditions.

Assam, Ajmer-Merwara and Baluchistan.—The Provincial Government and Local Administrations have not expressed their views on the recommendations made by the Committee nor have they stated the position as to "basic" education in their provinces.

Bengal and Bihar.—Replies not received though Bihar stated that the reply would be sent as soon as possible.

APPENDIX I (c).

MEMORANDUM ON ITEM IV OF AGENDA PLACED BEFORE THE CENTRAL ADVISORY BOARD OF EDUCATION.

(A) *Developments in Primary Education.*

A summary of the views of the Provincial Governments on the Report of the Vernacular Education Committee was placed before the Central Advisory Board of Education at its meeting held in December 1938. While noting with satisfaction the action taken by several Provinces on the lines suggested in the Report, the Board desired to be informed of further developments in the matter. Accordingly a subsequent report received from the Provincial Governments was submitted to the Board at its meeting held in May 1940. A further report in regard to developments in Primary education as obtained from the Provincial Governments is again submitted for the information of the Board.

Madras.—No fresh development in primary education has been reported.

Bombay.—After the amendment of the Primary Education Act in 1938 the Inspecting staff has been taken over completely by Government and placed in each district under Deputy Educational Inspectors who function independently of the Local Authorities. Experience has shown that this change has had a salutary effect on the morale of teachers.

As a result of the recommendations of the Committee appointed to examine the question of the training of teachers, a scheme was formulated with a view to training within a period of about 10 to 15 years all the teachers in the service of Local Authorities who are forty years of age or under. This scheme was introduced in 1939 and provides for a continuous course of training for two years in place of the former intermittent training. It is hoped that as a result of this scheme the proportion of trained teachers will increase materially within a few years.

The syllabus for primary schools has also been thoroughly revised. The revised syllabus aims at eliminating the narrowing influence of rigid formal work and now provides in all subjects a wide range of material and gives option of essential topics to suit the needs of various types of schools. It is hoped that this syllabus will bring school work into closer touch with the everyday life of the children in rural areas. A special simplified syllabus has also been laid down for small one-teacher schools and is now being followed in almost all small village schools.

During recent years with a view to liquidating mass illiteracy, efforts have been made to encourage the opening of B class schools in small villages with a population of less than 700. Although the general control of Primary Education is in the hands of the Local Authorities, Government has undertaken to aid direct from provincial funds these schools opened by private associations and individuals. The actual expenditure incurred by Government by way of grants was over Rs. 7 lakhs during 1939-40 and there are 5,000 schools of this type functioning at present.

Special provision has also been made in the budget for grants for Physical Education in Primary Schools and Local Authorities have been asked to frame schemes for the medical inspection of school children.

In the case of girls' schools the standard of work has been raised and these schools now have been brought up to the level of boys' schools and

teach up to Standard VII, *i.e.*, one year's additional work has been introduced in all girls' schools.

Punjab.—The Provincial Government have no fresh development to report except that the Government have decided that the present classification of primary (Classes I-IV) and middle (Classes V-VIII) departments of schools for boys should continue for the present, and that the revised syllabuses framed by the Revision Syllabus Committee should be spread over the existing classes.

Assam.—The Provincial Government agree with the steps taken by the Madras Government with a view to prevent wastage of funds on uneconomical or inefficient schools. As regards expansion of schools—in number and size—the Government realize that there must at first be a survey leading to the formulation of a plan of expansion, and thereafter they will make the necessary budget provision to meet the cost of increasing the number of schools and giving increased grant to one-teacher schools for employing second teacher, where the number of children in the higher classes is appreciably large.

The Local Bodies are not prepared to transfer control over the schools and the staff to the Education Department *in toto*. But the Provincial Government think that it should be possible to enforce through departmental proceedings or otherwise such control as may be necessary in public interests in regard to the appointment of trained teachers, and the unsettling of teachers by transfers. It has been recognised that Government must step in for the protection of teachers and should make their educational grant subject to Government having the power to enquire into and intervene in cases of wastage or misapplication of funds or undue disturbances of teachers.

North-West Frontier Province.—The Provincial Government have not reported any fresh development in regard to Primary education.

Sind.—The Bombay Primary Education Act, 1923, has been amended by the Sind Act 24 of 1939 with a view to strengthen Government control by taking over the Inspecting and Supervising staff of the Local Authorities.

Compulsory Primary Education has been introduced in three Talukas after the separation of Sind. It is now proposed to extend compulsory education to another Taluka. Government intend to introduce compulsory education in one Taluka every year.

The question of introducing compulsory Primary education for girls in the Lyari Quarter of Karachi is being pursued in consultation with the Karachi Municipal Corporation.

Coorg.—There are no recent, or prospective, perceptible developments to report in regard to Primary education.

Delhi.—A comprehensive scheme of education in the rural area has been submitted to the Government by the Superintendent of Education. The scheme covers the whole of the rural area which will be divided in ten educational circles and two of these circles will every year be brought under the operation of the scheme. It aims at the provision of compulsory Primary education course of 5 years' duration for all boys and girls in the

rural area of Delhi. It is proposed to start co-educational Primary schools with a staff of women teachers. These schools will have three years course. For the next two years classes will be held in the same building but teaching will be provided separately for boys and girls. It is intended to follow up the Primary school course by the provision of separate and attractive middle schools for boys and girls where arrangements will be made for Agriculture and Handicrafts. If funds are available, it would be possible to complete the scheme in six years.

Ajmer-Merwara.—The number of Primary schools for boys increased from 234 to 238 during the year 1939-40 and the enrolment from 13,201 to 14,650. This progress is creditable because it was attained in the face of a severe famine which at one time reduced the attendance to nil. The situation was faced boldly, and a number of Primary schools were transferred to the famine camps where they worked satisfactorily. With a view to encourage instruction in elementary physical training and games in Primary schools for girls, the Education Department supplied their district schools with equipment to facilitate such instruction. Managements of private schools in urban areas were asked to afford similar facilities in their schools.

Baluchistan.—The Primary school syllabus was revised to provide for the teaching of Hand-work, including gardening and the correlation of Hand-work with other subjects in the syllabus. A certain number of village teachers are being trained each year in the new methods of teaching Urdu reading according to the Moga Method and in the teaching of Hand-work.

The Local Administration agrees with the Punjab Government that the Primary course should consist of five rather than four classes, but no progress can be made in this direction until funds are made available so as to provide at least two teachers for each village school of five classes.

Bengal and Bihar.—Replies have not been received though in one case it has been stated that reply would be sent as soon as possible.

United Provinces and Central Provinces.—The Provincial Government have sent a report on the recent and prospective development in primary (basic) education, which is given in the memorandum on item 3 of the agenda.

Orissa.—The Provincial Government have little to note regarding the recent and prospective developments in primary education. The Local Self-Government Bill which contained provisions relating to compulsory education could not be placed before the Legislature before the constitution was suspended. The Provincial Government do not consider it desirable to pass this legislation during administration under section 93 of the Government of India Act. Primary education in this province is controlled in North Orissa by the local bodies and in South Orissa partly by local bodies and partly by a Council known as the District Education Council. The two parallel systems of managing elementary schools have not been conducive to the best interest of the primary education. The Provincial Government have under consideration the proposal to abolish the District Educational Council and to bring all elementary schools under one system of management and control.

Another matter worth mentioning is the question of levy of education cess. In one district of the province the local bodies have been given power to levy an education cess while in the remaining districts no such tax is levied. The question of unification of the systems has also been engaging the attention of the Provincial Government and it is hoped that in due course a method will be devised which will bring about uniformity not only in the control and management of primary education throughout the province but also with regard to the levy of tax for the purpose.

APPENDIX I(c).

MEMORANDUM ON ITEM IV OF AGENDA PLACED BEFORE THE CENTRAL ADVISORY BOARD OF EDUCATION.

(B) *Progress in Adult Education.*

The Adult Education Committee of the Central Advisory Board of Education had recommended *inter alia*, that "in a movement of this character the utmost freedom must be allowed to experiment and regard must be had at all times to local conditions. No useful purpose would be served by attempting to prescribe methods or draw up a code applicable to India as a whole. Valuable assistance might, however, be afforded to Provincial Governments and other authorities responsible for adult education if a Committee of experts were appointed to report on questions of teaching technique and survey the results of experiments". The Central Advisory Board of Education to whom the report of the Committee was submitted at its fifth meeting held in Simla in May 1940, was of the opinion that it would be premature at this stage to appoint a Committee as suggested in view of the fact that it was too early to survey the progress of the movement as a whole or to assess the results of the experiments that were being carried out in many areas. The Educational Commissioner was accordingly asked to collect information from Provincial Educational authorities as to developments in their areas and to prepare a statement for the Board. The progress so far made in adult education movement as reported by the various provinces is shown below and is submitted to the Central Advisory Board of Education for information.

Madras.—During the year 1939-40 there were 28 Adult Education Classes (26 for men and 2 for women with 1,109 men and 69 women under instruction), and 223 Night Schools (217 for boys and 6 for girls with a strength of 10,452 and 296 respectively) working in the Presidency. In view of limited finances the Provincial Government do not consider it possible to organise directly or even aid any scheme of adult education for the whole Presidency. They further consider that in the existing conditions adult education classes are of doubtful value and that primary education should receive priority. The whole work has therefore been left to be done by private agencies and local bodies.

Bombay.—The scheme of Adult Education was started by the Provincial Government in 1937 with only 29 classes and in order to spread the movement a special committee was appointed to work out a detailed scheme. In view of the prohibitive cost involved, the recommendations of the Committee could not be accepted. The Government, however, appointed a Board of Adult Education—

- (1) to submit for the approval of Government a programme for the spread of Adult Education in the province;
- (2) to conduct propaganda for the removal of illiteracy and other forms of ignorance;
- (3) to encourage and supervise the publication of suitable literature for Adult Education;
- (4) to consider schemes referred to it by Government or submitted by private bodies for the spread of Adult Education;

- (5) to advise Government as to the best manner of aiding the existing Adult Education classes and organising the work of such classes on a voluntary basis;
- (6) to advise Government as to the best methods of harnessing the enthusiasm and spirit for national service among the educated youths of the province for the drive against mass illiteracy;
- (7) to suggest means for co-ordinating Adult Education among villagers with other forms of rural reconstruction;
- (8) to advise Government on the question of implementing the various recommendations made by the Adult Education Committee; and
- (9) to collect funds.

In consultation with the Adult Education Board a scheme for the registration of workers and grants-in-aid to Literacy Classes was put into operation, and a sum of Rs. 40,000 was placed at the disposal of the Divisional Inspectors at the rate of Rs. 2,000 per district.

According to this scheme, the Adult Education workers are registered by the Provincial Board for Adult Education, and Literacy Classes conducted by these registered workers are recognised by the Government Inspecting Officers of the districts. The work of inspection and holding literacy tests of these classes and the payment of grants to them are in the hands of the District Educational Officer. Ability to read a paragraph in the Primary Second book with understanding and to write answers to four or five simple questions is the standard laid down for literacy. The grant admissible according to the scheme to a recognised Adult Education Class was as under:—

- (a) A basic maintenance grant of Rs. 5 per mensem and Rs. 2 per illiterate adult literate or a capitation grant of Rs. 4 per made adult made literate, at the option of the workers.
- (b) In addition, a non-recurring grant for equipment equal to the cost of articles purchased not exceeding Rs. 40.

As a result of the impetus given to the movement, the number of adult classes rose to 2,300 during the year 1939-40 and 13,200 adults were made literate. The total amount of grant paid to these classes was Rs. 86,000 but roughly about Rs. 27,000 was paid by way of an equipment grant. The average cost per literate amounted roughly to Rs. 4-8-0. In view of the heavy cost the grant was reduced during the course of the year and fixed as under:—

An equipment grant of 12 and a capitation grant of Rs. 10 on every adult turned literate, or one Rupee in the case of classes where there is no Local Board School in the locality.

This reduction in the rate of grant proved a damper and there was a fall in the number of classes. At the end of 1939-40, nearly 50 per cent. of the classes disappeared and only 25 per cent. of the adults attending the classes became literate.

The budget allotment during 1939-40 was Rs. 2,85,000 but the expenditure amounted to Rs. 1,56,000.

The whole scheme is again under review as the methods adopted so far have not proved a great success. Classes have not been made sufficiently attractive and they are handled by men having little experience of such work.

Bengal.—In March 1938, the Education and the Rural Reconstruction Departments decided that Government should take up the responsibility for the education of adults and that this should be a definite function of the Department of Rural Reconstruction. The Director of Rural Reconstruction accordingly drew up a plan for adult education along with that of Rural Reconstruction. A Primary and Adult Education Committee was set up in August, 1938. Consideration of the scheme regarding the adult education was held up pending the deliberations of the Committee. The Committee has reached its conclusion and the report is being made ready.

On instructions from the Director of Rural Reconstruction, specifically in December 1938 and November 1939, and also generally at other times, country-wide activity for adult education took the work previously done over several further stages at once. The Director's extensive tours in the province spread enthusiasm among local official and non-official workers even in least accessible tracts.

As a result of this drive, about 10,000 night schools attended by about 150,000 adults have been established in the Presidency. They are run mostly from locally raised contributions, in a few cases from Union Board funds, and in a still fewer cases out of the discretionary grant of the Home Department. In some places, elaborate plans of campaign against illiteracy have been prepared. In others, novel and interesting methods, e.g., Thumb Impression Campaign, have been introduced. Literacy in Chaukidars has been widely insisted upon; Adult Education Weeks have been organised and village libraries, circulating or otherwise, have been established. The training imparted to the Circle Officers, the University and College students of Calcutta, and to village workers and local officers in about 50 Sub-divisional Training Camps has yielded satisfactory results in adult education.

United Provinces.—The Education expansion scheme, divided into two parts (1) creation of literacy, and (2) maintenance of literacy, was formally inaugurated on July 15, 1939. This day was observed as the Literacy Day throughout the province, which aroused public interest in the scheme. As a result, Rs. 38,680 were collected for the purpose. Again February 4, 1940, was celebrated as the second Literacy Day. The money realised from the sale proceeds of the Literacy flags and button-holes amounted to Rs. 10,281.

Creation of Literacy.—(i) 960 adult school teachers were appointed and each teacher was given a group of 8 to 10 villages. 915 schools were given aid with a view to encourage literacy schemes. The greatest emphasis was however laid on the bonus scheme under which each voluntary worker who made a person literate was offered Re. 1. Local bodies, factories, banks, etc., were requested to arrange for making all their menial employees literate. All the Intermediate colleges, High schools and Vernacular middle schools were requested to adopt a village each and to try to make all educable and willing adults in that village literate within a year. Altogether 437 institutions (out of 1,197) adopted this scheme. The student community succeeded in teaching 153,251 persons to sign their names.

Text books were supplied free of cost. Some special teaching appliances were distributed among schools.

The standard of literacy fixed is the attainment of (1) ability to read a piece of the standard of Class III of primary school with a fluency of about 30 to 40 words per minute, (2) ability to write simple sentences, and (3) the possession of a very elementary knowledge of the Geography of India and Arithmetic. The total number of persons made literate during the year 1939-40 was 279,604 (which excludes figures for Bareilly, Hardoi and Unao).

Maintenance of Literacy.—(i) With a view to prevent new literates from relapsing into illiteracy 768 libraries, and 3,600 reading rooms were opened in rural areas on the first Literacy Day. Each library is supplied with about 300 books in Hindi and Urdu, besides necessary equipment. Each library has five branches within a radius of 5 to 8 miles which receive a box containing 20 to 30 books each month. The numbers of Hindi and Urdu books supplied to these libraries are 158,721 and 51,015 respectively. Each reading room is being given also two weeklies and one monthly magazine in Hindi and Urdu according to local demand. In places which have educated or literate women, special ladies' magazines in Hindi or Urdu are also supplied. The total number of copies of the weeklies supplied to the reading rooms per week was 7,200 and that of the magazines supplied each month was 4,150. The men-in-charge of the reading rooms who are required to read out newspapers to the illiterate villagers get an allowance of Re. 1 per month for this work. In addition to the Government rural libraries, private libraries have also been opened in rural areas and Government have been giving them grant varying from Rs. 36 to Rs. 96 per year according to the size and usefulness of the library. They are also being given two periodicals in addition to the grant.

At present the problems before the Provincial Government are (i) the production of suitable literature for the new literates, and (ii) the method of teaching. Steps are being taken to publish small books on suitable topics in the simplest possible language, and provide them to the people through the adult school teachers who are in close touch with their erstwhile pupils. Regarding the second problem, it is proposed to organise short training courses for the adult school teachers in every district next year.

Punjab.—Dr. Laubach's method has been given a very fair trial in the province. The results produced have been extremely gratifying.

In 1939-40, the Provincial Government embarked upon a 5-year programme for the eradication of illiteracy in the province and sanctioned a sum of Rs. 22,800 for the purpose during that year. The campaign aims at educating (a) illiterate adults, (b) illiterate boys of school-going-age in a non-compulsory area whose parents do not find it possible or worth their while to send them to school and (c) boys between the ages of 12 and 18.

As a result of this drive, 106,473 adults were under instruction on the 31st March 1940, as compared with 45,440 on the same date of the preceding year. For the corresponding years, the number of adults who attained literacy was 50,779 and 13,296 respectively. Altogether, 3,897 adult literacy centres were in existence.

All the Government Normal Schools in the province are doing intensive anti-illiteracy work through their pupil teachers in the villages in their

neighbourhood. While at home during the summer vacation, they undertake this work in their villages. Similarly the staff and students of Government, Board and privately managed schools and colleges do this work. The Inspecting staff have also been paying special attention to adult literacy work and impress, upon the institutions they inspect the desirability of opening literacy leagues. Adult educational centres have been organised in factories, jails, mosques, temples and gurdwaras.

The movement spread also among women. One Circle had 124 centres with 1,565 adult women under instruction, another 700 and the third 2,836.

Prior to 1940-41, the teaching work in the anti-illiteracy campaign was being conducted solely on a voluntary basis except that the Education Department supplied primers and follow-up-literature free of cost. During 1940-41, sufficient provision was made in the budget to give an added impetus to the movement by employing paid workers. The details are given below:—

- (i) 20 teachers at Rs. 7 per mensem each have been employed in each district to undertake the work of teaching illiterate adults.
- (ii) A sum of Rs. 100 has been allotted to each district in order to meet the expenditure of a short training course to these teachers for a period from one to two weeks.
- (iii) The district boards have been asked to spare from their vernacular teachers' cadre two senior teachers whose pay would be considered as approved expenditure on vernacular education and who will supervise the work of other teachers, and will work under the guidance of District Inspectors. The supervisors will get a conveyance allowance of Rs. 15 per mensem. These inspectors will also get Rs. 15 per mensem as extra conveyance allowance.
- (iv) A sum of Rs. 100 has been given to each district to provide cash prizes to voluntary workers.
- (v) A sum of Rs. 150 has been placed at the disposal of each district inspector to meet the contingent expenditure.

In addition, a sum of Rs. 25,000 was provided for the production and distribution of literature.

Efforts were also being made to canvass voluntary work in this campaign and for this purpose school and college students, literate adults in cities and villages, religious bodies and other public and philanthropic organisations were awakened to this responsibility through personal contact and propaganda.

Bihar.—During the year 1930-40, the experience gained in the first year of the literacy campaign was utilised to improve the machinery for organisation and supervision of literacy work. One Thana in each District was selected for intensive work, and the literacy work in the Thanas selected in the first year was continued for three months more in the second year with a view to prevent the new literates from relapsing into illiteracy. 4,000 village libraries in Hindi, Urdu and Bengali were started and weekly newspapers were supplied to about 2,000. Outside these intensive areas there were about 100 literacy centres in each district.

Sugar-Mills, High Schools and Colleges also continued their literacy activities. Literacy work at Jamshedpur was carried on efficiently. The campaign to make the illiterate members of their family literate was started by the pupils.

The movement, however, received some setback on account of the resignation of the Congress Ministry and the outbreak of the War. But vigorous steps were taken to stimulate it and the movement continued to make steady progress. On the Bihar Literacy Day, which was celebrated on the 14th July 1939, medals and certificates were awarded to good workers. Literacy work in jails was also continued as in the previous year and 9,000 chaukidars attained literacy during the year.

During the year 1939-40, there were 18,878 literacy centres attended by 1,168,325 persons, including 455,553 who were in the Post-Literacy Class. 413,482 became literate during 1939-40 against 450,000 the previous year. The number of Literacy workers was 20,567, of whom 5,267 were Primary School Teachers, and the others non-teachers.

The educational institutions made 18,155 persons literate. The total cost of the campaign came to a little over 2 lakhs of which Rs. 1,80,510 were paid by Government and the rest met from contributions.

Over 9,000 women attained literacy during 1939-40.

Primers were printed in Hindi, Urdu, Bengali, Uraon and Mundari. The fortnightly news-sheet "Roshni" was regularly published and distributed to all the Centres.

Central Provinces.—In 1937-38 a scheme for the establishment of 50 adult schools was sanctioned by the Government. The schools were started by local bodies with the approval and assistance of the Education Department, the grant paid per annum being Rs. 40. Actually 47 adult schools were started in 1937-38, of which one was closed during that year, 16 during the next year, and 5 during 1939-40.

On account of lack of sufficient funds, lack of sustained interest on the part of local bodies and a poor response from the adults, adult education did not make satisfactory progress in the province.

The scheme of village public libraries started by the Education Department in 1928 seems, however, to have taken root. Altogether there are 44 libraries attached to middle schools situated in the rural area under the control of local bodies and an equal number of circulating libraries. Those libraries help the cause of adult education to some extent.

Assam.—A mass literacy movement has been started in the province from the 11th September 1940. The main features are:—

- (1) It is proposed to open at least 100 centres for Mass Literacy Work in each sub-division of two Valleys of the province. Each Municipality will also have a few centres out of those allotted to each Sub-division.
- (2) The class for the teaching work should ordinarily be held in the existing local Primary or Middle Schools. It may also be held in a temple, mosque, or in a house built for the purpose by the local people.
- (3) The teaching work will be entrusted to efficient teachers of the Primary Schools of the Sub-division. All the selected

teachers will have a course of instruction for Mass Literacy work at centre meetings.

- (4) The teachers will receive a regular additional salary varying from Rs. 2 to Rs. 5 per mensem according to the strength of the classes, but the amount will be paid at the end of a term of 3 months after watching the results of their teaching the illiterates and efforts made in this direction.
- (5) The standard of literacy will be judged from "Test Cards" which the pupils will be required to fill in.
- (6) Any students or Public Associations may take up Literacy Work and organise centres. The Provincial Literacy Committee will lend primers, etc., to the Centre and if funds are available the Centre may also be helped with a small grant-in-aid to meet the contingency charges and remuneration to the teachers engaged. The sub-divisional committee will make an effort to raise money by any means to help the centres.
- (7) Certain organisations such as Tea Garden concerns, Oil Companies, Mills, etc., may start centres on their own accounts.
- (8) A few centres may be reserved for literacy work among women, but such centres should be opened only in localities where there are a sufficient number of lady volunteers.
- (9) Literature will be supplied to enable the adults to have greater proficiency in reading and to widen mental outlook.
- (10) Efforts will be made to—
 - (i) start village libraries in the centres;
 - (ii) organise circulating libraries; and
 - (iii) publish news-sheets, etc.

North-West Frontier Province.—On account of the poverty of the province, neither the Government nor local bodies could allot any considerable funds for the progress of adult education. But in response to an appeal issued by the Education Department to all teachers under them, 243 night classes attended by 3,501 adults came into existence during 1939-40. The Government sanctioned a grant of Rs. 6,000 for the upkeep of these classes and for providing primers, takhties, pens and ink to the adults. About 3,000 of the adults have acquired a fair amount of literacy but there is a danger of their relapsing into illiteracy, as village libraries containing suitable books do not exist. Moreover, adults are not regular in attending classes.

Sind.—The Provincial Government undertook an extensive scheme of mass education during the year 1939-40. While some results were achieved, it was found that without sustained effort and non-official help no headway could be made in this sphere. The Government is reconsidering the scheme in the light of the experience gained.

Orissa.—In 1939, the Provincial Government launched a campaign for abolishing illiteracy. The work was started with as much voluntary efforts as possible and grants were made towards the cost of equipment of these classes. Teachers and students alike joined hands and a number of centres were opened throughout the province. Short courses of instruction were organised for the teachers, students and other workers in the art of teaching adult illiterates, and pamphlets on the psychology of adults

and on adult learning were published and distributed to workers. 500 students worked during the summer vacation of 1939 and made 1,500 adults literate. By the end of the year 1939-40 there were 907 centres attended by 21,737 adults out of which 19,870 attained literacy.

As the results, however, did not come up to expectations, centres were limited to areas where there was real enthusiasm. Thus the number of centres was reduced to 433 with 9,392 on rolls.

The financial position of the province did not permit the organisation of travelling and circulating libraries, and so the newly made literates were encouraged to fall back on such literature as was available and written in simple language on topics, agricultural, hygienic or religious. It has been proposed to publish and to supply a fortnightly news bulletin to literacy centres when a sufficient number of them are opened.

Ajmer-Merwara.—During the year 1939-40, all adult schools run by the Co-operative Department were closed down for want of funds. The District Board also withdrew their grants to such schools with the result that this branch of education suffered a serious setback. There are only two Adult Primary Night Schools, one run by the Municipal Committee and the other by the Cantonment Board.

Coorg.—The only attempt towards Adult Education that has been made recently is the Night School opened at Koodige in North Coorg for the education of the adults of the locality. The school is being run by the Better Living Society of the place and aid towards the expenditure of oil for lighting the school has been promised by the Coorg District Board. The school is run by one teacher and the strength is 32.

Delhi.—Progress in adult education has not been satisfactory. Unless separate and well-qualified staff is provided for work in night schools, no scheme for adult education can make any real success. In the rural areas there is very little enthusiasm on the part of adults. Failure of rains and famine conditions have made progress in this direction even more difficult.

Baluchistan.—A few classes for adults were opened during the year 1940-41. It is too early to say whether these will prove successful.

Summary Statement—Adult Education, 1939-40.

Province.	Schools and classes.	Library.	Reading rooms.	Enrolment.	Number rendered literate.	Grants-in-aid.	Voluntary contributions.	
						Rs.		
Madras	251	...	...	11,926	...	...	...	Adult education work left to private agencies in view of limited finances.
Bombay	2,338	...	...	56,000	13,200	86,560	...	50% of the classes disappeared due to reduction in grant and only 25% rendered literate at the end of 1939-40.
Bengal	10,000	...	...	1,50,000	...	...	...
United Provinces	915	768	3,600	...	2,79,604	Rs. 36 to Rs. 96 per private library opened in rural areas.	...	2,09,736 Hindi and Urdu books supplied to the libraries. 7,200 weeklies to Reading rooms per week. 4,150 Magazines to Reading rooms per month.
Punjab	3,897	...	...	1,06,473	50,779	22,800	...	Education Department supplied free of cost primers and follow-up literature to the classes.
Bihar	18,878	4,000	...	11,68,325	4,13,482	1,80,510	19,490	2,000 weekly newspapers in Hindi, Urdu and Bengali were supplied to the libraries, also news-sheets.
Central Provinces and Berar	5	44	...	...	...	...	...
Assam . . . . .	...	...	...	...	...	...	...
North-West Frontier Province.	248	...	...	3,501	3,000	6,000	...	No village libraries.
Sind	1,709	2	...	60,159	29,995	20,000	1,61,193	Books, charts and slates, etc. were supplied to the various centres. In some districts moving libraries have been opened to make the work permanent.
Orissa	907	...	...	21,737	19,870	...	...	No funds for establishing travelling and circulating libraries, proposal to publish and supply fortnightly news bulletin.
Ajmer-Merwara	2	...	...	...	...	...	...
Coorg	1	...	...	32	...	...	...	Run by the Better Living Society and managed by one teacher.

APPENDIX I (d).

MEMORANDUM ON ITEM V OF AGENDA PLACED BEFORE THE CENTRAL ADVISORY BOARD OF EDUCATION.

Withholding of the emoluments of scholarships from those students whose parents are able to provide education without financial assistance from public funds.

The Central Advisory Board of Education considered, at their fifth meeting held at Simla on the 6th and 7th May 1940, the question whether it was in the public interest to withhold the emoluments of scholarships and stipends granted out of Government funds from those candidates whose parents were able to provide education without the assistance of a scholarship. It was recognized that one of the objects of granting scholarships from public funds was to enable poor students of ability to prosecute their studies further than they would be able to do if dependent on their own resources. As the funds available for education were by no means abundant, the Board felt that there was much force in the view that payment of scholarships should be withheld from children of well-to-do parents and the money thus released utilized for the award of scholarships to poorer students. At the same time, as scholarships conferred upon the winners a distinction which might be a valuable asset in their future careers, and as it would not be fair to deprive children of well-to-do parents of the opportunity of securing such distinction, the Board were inclined to the view that a winner of a merit scholarship, whose parents were able to provide education without the financial help of a scholarship, should be treated as an Honorary Scholar, the emoluments of the scholarship being made available to him only in the event of his circumstances deteriorating during his tenure of the scholarship to an extent that would make him eligible for financial assistance. Before however arriving at a final conclusion in the matter, the Board desired to be furnished with the views of Provincial Governments and Universities in the matter. The question was accordingly referred by the Government of India to Provincial Governments, Local Administrations, Indian Universities and Indian States possessing Universities of their own. A summary of the replies received is appended for the information of the Board.

SUMMARY OF REPLIES RECEIVED FROM THE VARIOUS PROVINCIAL GOVERNMENTS, LOCAL ADMINISTRATIONS, INDIAN STATES AND INDIAN UNIVERSITIES ON THE QUESTION OF WITHHOLDING THE EMOLUMENTS OF EDUCATIONAL SCHOLARSHIPS FROM THOSE STUDENTS WHOSE PARENTS ARE ABLE TO PROVIDE EDUCATION WITHOUT FINANCIAL ASSISTANCE FROM PUBLIC FUNDS.

The *Government of Madras* report that the scholarships instituted by them are generally granted only to poor students of promise and that the suggestion of the Central Advisory Board of Education is already in vogue.

The *Madras and Andhra Universities* agree with the general principles enunciated by the Central Advisory Board of Education.

The *Government of Bombay* agree that merit scholarships should not be monetary except where the economic circumstances of the student justified it or where, as in cases of Fellowships, certain definite responsibilities like taking occasional classes, etc., were imposed on the recipients.

The *Bombay University* is not in favour of restricting the scholarships to poor students only.

The *Government of Bengal* report that they have already accepted the principle that payment of scholarships should be withheld from children of well-to-do parents, who should be treated as 'Honorary Scholars'.

The *Dacca University* is in accord with the general principles of the proposal but feels that there are serious difficulties in devising practical means to give effect to it. The University is, therefore, unable to express any opinion unless a concrete scheme of award is framed.

The *Government of the Punjab* state that the principle is already in force in the Province. They report that under the Punjab Education Code, Government scholarships are not awarded to students who cannot furnish a certificate to the effect that the income of the father or the guardian is below Rs. 5,000 and that he does not pay land revenue exceeding Rs. 1,000. They add that scholars who cannot furnish such a certificate but are otherwise eligible are declared 'Honorary Scholars'.

As the number of merit scholarships is very limited, the *Punjab University* does not consider it desirable to award them on considerations other than merit. It suggests that, if funds are available, stipends should be given to poor but bright students who fail to win merit scholarships.

The *Government of Assam* do not accept the proposals but remark that there are ordinarily very few students in that province holding scholarships, whose parents are able to provide education without state assistance.

The *Government of Orissa* agree with the tentative views of the Central Advisory Board of Education. They further suggest that if the financial position of an 'Honorary scholar' deteriorates during his tenure of the scholarship, Government should assist him in his need without depriving the other less meritorious scholar of the scholarship already awarded.

The *Government of Sind* state that scholarships from public funds are usually awarded only to candidates requiring financial assistance, and that there is already a provision in the scholarship rules that successful candidates who win merit scholarships but do not wish to claim the amount of the scholarship may be designated as 'Honorary Scholars'.

The *Government of Bihar and the Patna University* are of opinion that there is no reason why a student who has obtained a scholarship by dint of labour should be deprived of it, unless he voluntarily gives it up.

The *Government of the North-West Frontier Province* state that scholarships are awarded annually from public funds to enable only poor boys of special ability to proceed to higher education than their parents could otherwise afford. The award of the scholarship is governed by (1) poverty and (2) merit and is further subject to the condition that candidates whose parents or guardians pay income-tax or more than Rs. 100 as land revenue, be designated 'Honorary Scholars', the emoluments of the scholarship being given to other needy students.

The *Chief Commissioner, Coorg* reports that no scholarships are given purely on merit. Scholarships are open only to pupils of promise and the pecuniary circumstances of whose parents are such as to prevent them from prosecuting their studies without state assistance. If, however, the pecuniary circumstances of a scholar subsequently improve, the scholarships are usually withheld.

The *Chief Commissioner, Delhi* feels that no scholarships which are in the nature of prizes and are awarded on the results of competitive examinations should be withheld in any circumstances, except where a scholar of his own free will expresses a desire to forgo the emoluments.

The *Delhi University*, while accepting the scheme in principle, feels that there will be some practical difficulties in the application of the principle to individual cases. It is difficult to define the term "well-to-do" as the conception will vary according to circumstances. A parent may be "well-to-do" in the sense that he can afford to educate his children at school but may not be able to provide University or higher education for his children without financial assistance from scholarships. Any attempt, therefore, to define the term "well-to-do" should be made in reference to the object in view and the specification of income for that purpose should be on a sliding scale. The University also feels that the emoluments of a scholarship withheld from a rich student should not automatically pass on to the next candidate in the order of merit unless the latter too deserves it on the basis of merit and a recognized standard of achievement.

The *Hon'ble the Chief Commissioner, Ajmer-Merwara* agrees that **except** in the case of scholarships specifically awarded for merit, the emoluments of scholarships and stipends should be withheld from children of well-to-do parents.

The *Chief Commissioner, Andamans*, agrees to withhold the emoluments of scholarships from children of well-to-do parents.

H. E. H. the Nizam's Government are of opinion that merit scholarships should be awarded irrespective of personal condition but that if the number of merit scholarships is large, it should be reduced and replaced by bursaries.

The *Osmania University* considers that as merit scholarships are the reward of the students' hard work and success in the examinations, they should be continued irrespective of the pecuniary circumstances of the students' parents. It also expresses the view that a system of awards based on poverty combined with merit would introduce difficulties as it would not be easy to ascertain the real income of the students' families and to draw lines where better circumstances begin.

The *Government of Mysore* agree with the general principles enunciated by the Central Advisory Board of Education.

The *Mysore University* states that the proposal to institute a system of 'honorary scholars', while formally sound, is of no great practical importance to the University, as by far the greater number of awards is made mainly on the ground of poverty and a large proportion of those who are awarded merit scholarships are poor.

The *Government of Travancore and the Travancore University* agree that the emoluments of scholarships may be withheld from children of well-to-do parents. At the same time, they consider it desirable to fix the standard of income of parents fairly high, lest parents of but average means who are liable to find it difficult to make the entire provision for their children's education without the support of scholarships be adversely affected by the innovation.

Agia University. Scholarships awarded on pure merit in public examinations should be awarded to those winning such scholarships irrespective of the financial circumstances of their parents and guardians.

Aligarh University: It is open to well-to-do students to give up their merit scholarships, but it is not desirable to oblige them to do so, nor can any rules be framed on this point. In case a well-to-do student gives up his scholarship, the fact should be specially mentioned in the Certificate to be issued to him by the Head of the Institution.

Allahabad University: Opinion on the subject is divided. It is realised that the number of deserving students who need financial assistance is very large, but at the same time the scholarship is sometimes utilized by the richer students for purchasing books and building up a personal library. Perhaps a good compromise would be to award to the richer students a cash prize on the definite condition that it is spent on the purchase of books and the balance be awarded to the poor students.

Annamalai University: The Syndicate approves of the suggestion made by the Central Advisory Board of Education.

Benares University: In the opinion of the Syndicate Merit Scholarships should be conferred upon the actual winners of distinction, rich and poor alike.

Calcutta University: The Hon'ble the Vice-Chancellor and the Syndicate of the University do not agree to accept the principle involved in the question. This principle, they hold, is unsound from the academic point of view and will gradually lower the standard of academic efficiency as it seeks to withhold recognition of merit on grounds of merit alone. The award of scholarships, stipends, etc., is a recognition of the intellectual powers of the students concerned and unless the reward is thrown open to all—rich and poor, it will defeat the very object it proposes to serve. It will unfortunately take away that incentive to further intellectual effort on the part of students which is so essential for a steady and continued improvement of their abilities and ultimately its effect will be prejudicial to the cause of education in general.

Lucknow University: The Scholarship Committee is of opinion that scholarships should be awarded only on academic merit and on no other consideration.

Nagpur University: While the proportion of merit scholarships to poverty scholarships may vary from time to time and place to place according to different circumstances, a certain number of scholarships should always be reserved for those who are entitled to them on merit. The purpose of merit scholarships cannot be fulfilled by the creation of honorary scholarships. The merit scholarships even if they were serving no other purpose will constantly remind the student community of the close connection between good work and what it can win.

Government of the Central Provinces: This Government has only recently applied the principle of 'poverty-cum-merit' as the criterion for determining the award of scholarships and stipends granted out of Government funds, and, requires further time to appreciate the results of the application of this principle. The Government is not therefore prepared at present to introduce a scheme of honorary scholarships, and is doubtful whether the introduction of honorary scholarships may not cause heart-burnings.

APPENDIX I (e).

MEMORANDUM ON ITEM VIII OF AGENDA PLACED BEFORE THE CENTRAL ADVISORY BOARD OF EDUCATION.

School Leaving Certificate Examination.

The Government of Bombay have had under consideration the question of the institution of a School Leaving Certificate Examination to meet the requirements of those pupils in the Secondary Schools who do not want to enter the University. At present the Matriculation Examination of the Bombay University serves a dual purpose, for entrance to the University and as a qualification for employment in public services, trade, commerce, or industry. This examination is however primarily a test of fitness for further academic studies and is confined to literary and scientific subjects. The secondary schools have consequently no alternative but to teach only those subjects. There is however a large number of vocational and other subjects fit for teaching in the secondary stage, which though not necessary for the University career are yet very essential for boys for entrance to the services, industry, trade and commerce. These subjects cannot be taken up by schools as there is at present no examination to test the boys at the end of the course. The requirements of the Matriculation Examination are so rigid in favour of a minimum standard in the prescribed subjects that it leaves no option to the students apart from those subjects and results in considerable hardship in case of students lacking the necessary literary outlook. This state of affairs is undesirable and requires to be remedied. This can only be done either by re-organising the Matriculation Examination by the introduction of several alternative subjects in its curriculum or by the institution of a separate School Leaving Certificate Examination to satisfy all requirements. It is represented that the Bombay University is not in a position to expand its Matriculation as required. The only alternative therefore is a separate School Leaving Certificate Examination, and this question has been under the consideration of the Government of Bombay for sometime past. As a preliminary measure the Government of Bombay has already sanctioned conversion of some of its high schools into vocational high schools with a view to provide alternative courses of studies for boys in the secondary schools. This would naturally require the institution of a School Leaving Certificate Examination.

At a Conference held by the Government of Bombay with the representatives of the Bombay University and the Bombay Board of Secondary Education the necessity of instituting a School Leaving Certificate Examination was agreed to by all, and the Government of Bombay appointed a Committee in order to draw up a scheme for holding the School Leaving Certificate Examination.

The Committee was asked to consider the following points in particular:—

- (1) The structure of the School Leaving Certificate Examination and the minimum requirements for a School Leaving Certificate.
- (2) What additional subjects will be necessary for those candidates who desire to Matriculate and the general question of the equivalence of the School Leaving Certificate and the present Matriculation Examination.
- (3) What should be the constitution and functions of the School Leaving Certificate Examination Board.

The Committee has recommended a structure for the proposed examination as shown in Annexure I. The detailed curriculum of the proposed subjects are not added as they do not seem to be necessary.

The Committee has also proposed the constitution and functions of a Board for conducting the examination as shown in Annexure II.

The report of the Committee is under the consideration of the Government of Bombay but before arriving at a final decision on the question it would like to have the opinion of the Central Advisory Board on the proposals made by the Committee in the light of the experience gained by other provinces in this respect.

ANNEXURE I.

Structure of the School Leaving Certificate Examination.

The subjects for the examination and the standards of passing should be as laid down in the following statement:—

Group I	English and Regional Language (a candidate who declares that his mother tongue is not one of the recognized regional languages may offer any other additional subject instead).
Group II	History, Geography, Administration and Civics; English, one of the following Modern Indian Languages:— Marathi, Gujarati, Kannada, Tamil, Telegu, Urdu, Hindi, Sindhi and Bengali.
Group III	Sanskrit, Pali, Ardha-Magadhi, Arabic, Persian, Avesta Pahlavi, Latin, Hebrew, Greek, French, German, Spanish, Italian, Portuguese.
Group IV	Mathematics, General Science, Physics and Chemistry, Botany and Zoology, Agricultural Science, Elements of Commerce.
Group V	Art (Drawing and Painting), Music, House Craft, Domestic Science, Book-keeping and Accounts, Shorthand and Typewriting, Geometrical and Machine Drawing, Practical Agriculture, Mechanical Engineering, Electrical Engineering, Workshop Technology, Spinning and Weaving.

Standards for passing and obtaining a class (or grade).

To qualify for a School Leaving Certificate, candidates must pass at one and the same examination in Group (I) and in five subjects taken from at least two groups, of which group (III) or (IV) must be one.

No candidate may enter for papers in more than 8 subjects apart from group (I).

School Leaving Certificates will be issued in three grades:—

Grade I to candidates who reach a good general standard, *i.e.*, get 5 credits at one and the same examination.

Grade II to candidates who gain at least three credits and reach a sufficient general standard.

Grade III to the other successful candidates.

On the question of the equivalence of the School Leaving Certificate Examination and the Matriculation Examination the Committee has stated that it is a matter for the Bombay University Authorities to decide under the Bombay University Act. The Committee however thinks that provided the extent and standard of the courses prescribed for the School Leaving Certificate Examination do not fall below those required for the Matriculation Examination there is every reason to expect that the University will treat, as regards equivalence, the Bombay School Leaving Certificate Examination, in the same way as it treats certain other examinations.

ANNEXURE II.

Constitution and Functions of the School Leaving Certificate Examination Board.

The Committee are of opinion that the Board should be constituted as under:—

Personnel.

- 1 Chairman.
- 2 Members of the University.
- 2 Members of the teaching profession.
- 2 Members of the Board of Secondary Education.
- 2 Members of the Education Department.
- 2 Others.

The Members and Chairman to be nominated by Government.

There should also be a full-time paid Secretary (who will not be a member of the Board).

Functions.

The main functions of the Board will be to conduct a School Leaving Certificate Examination for pupils from recognized schools in the subjects prescribed by Government and to award certificates according to the rules sanctioned by Government.

For this purpose, the Board shall—

- (1) fix the centres of examination and the time of examination;
- (2) appoint paper-setters, examiners, etc., and fix their remuneration;
- (3) publish the results of its examinations;
- (4) collect fees and incur the expenditure for the conduct of the examination; and
- (5) frame an annual budget for the sanction of Government for the conduct, etc., of the examination.

The Board may also make recommendations to Government in regard to the subjects of examination and the syllabus laid down or in regard to any matter connected with the examination.

APPENDIX I (f).

MEMORANDUM ON ITEM IX OF AGENDA PLACED BEFORE THE CENTRAL ADVISORY BOARD OF EDUCATION.

Facilities provided in Indian Universities to students of British Universities who have returned to India on account of the war without finishing their courses.

In June 1940, on account of the uncertain European situation some of the Indian students studying in England expressed a desire to the High Commissioner for India to return to India with a view to prosecuting their studies in Indian Universities provided the period spent by them at British Universities could be recognised by Indian Universities for the purpose of completing their degree courses. On receipt of this information, Indian Universities were consulted through the Provincial Governments concerned as to whether they were prepared to afford the necessary facilities. The replies of the Universities are submitted to the Central Advisory Board of Education for information.

Agra: As a change in the Statute of the University was necessary for the admission of students from British Universities to Agra University which would take six months, the Vice-Chancellor exercised his emergency powers subject to confirmation by Executive Council.

Aligarh Muslim: The University is willing to amend the existing ordinances, as a temporary measure, so as to permit Indian students, who have been studying at a British University to join the degree classes at Aligarh and to count the period already spent at the British University concerned for purposes of completing the degree courses in India.

Allahabad: The procedure in the University Act to meet the situation being very cumbrous, it was not considered possible to follow it. Any action that might be necessary to allow such students to get the advantage of their residence abroad would be taken under the emergency powers of the Vice-Chancellor.

Andhra: The University Syndicate resolved to help the students from British Universities to the best of their ability. No difficulty was anticipated in amending regulations to suit requirements.

Annamalai: The University Syndicate decided to consider favourably the question of the admission of students from British Universities by granting such exemption as may be necessary for completion of degree courses in that University.

Benares Hindu: The University authorities will relax rules regarding candidates partially trained in Great Britain and to recognise period spent outside.

Bombay: The regulations were relaxed to enable students unable to complete studies at British Universities to continue corresponding courses in the Bombay University. The University authorities have admitted many students to the Engineering and Arts courses.

Calcutta: The University decided to take into account the period of study spent by the students of Calcutta University at British Universities for admission to its examinations, and further decided that orders in each case would be passed after considering the facts.

Dacca: The University agreed to recognise the period spent by Indian students in British Universities for the purpose of enabling them to complete the courses at Dacca University.

Delhi: The Academic Council of the University has proposed the following ordinance to the Executive Council for approval:

“Notwithstanding the provisions of any ordinance relating to any examination of the University, a student who has prosecuted a regular course of study in the United Kingdom for a degree of a British University for at least one academic year, but owing to the difficulties created by the war is unable to complete his course or his examination, may, with the permission of the Vice-Chancellor granted after consultation with the Dean of the Faculty concerned, be admitted to a course of study for the corresponding degree of the University.

All questions of exemption from attendance at any course of lectures or from any part of an examination and of additional papers to be taken by the student to complete his examination shall be determined by the Vice-Chancellor after consultation with the Dean of the Faculty concerned.”

An Indian student who was at the University of Leeds for two years studying for his LL.B. degree has recently been admitted to the LL.B. class in this University. He will get credit here for the work done and the examinations passed by him at Leeds.

Lucknow: The Regulations already provide for recognition of period spent at British Universities for purposes of completing degree courses.

Madras: The University authorities passed the following statute which will have effect for the duration of the war and for two years afterwards.

“Notwithstanding anything that may be contained to the contrary in the laws of the University, it should be competent for the Syndicate with regard to students whose courses of studies in foreign Universities have been interrupted by the war (in September 1939) to dispense with a strict compliance with the obligation to pursue an approved course of study and such other conditions as may be laid down in the Laws, subject to the provision that candidates who have taken in Great Britain an examination qualifying for admission to a British University, but who on account of the war have been prevented from joining a University in Great Britain, shall be permitted the same privileges as regards admission in the University of Madras as they would have been entitled to in a British University.”

Mysore: The Vice-Chancellor anticipates no difficulty in accepting a period spent at British Universities as counting towards the period required for qualifying for corresponding degrees of Mysore University, provided the candidate satisfies the University that he passed the Intermediate or the corresponding examination of an Indian University before he was admitted to a British University.

Nagpur: The University authorities have no objection to grant the concession asked for by Indian students studying abroad.

Osmania: The Nizam's Government is willing to relax the *Osmania* University Regulations to recognise periods spent by Indian students at British Universities for purposes of enabling them to complete degree courses at the University, but the students will be admitted only in subjects for which arrangements are available.

Patna: The University authorities agree to relax their regulations in order to recognise the period spent by students of Bihar and Orissa at British Universities for purposes of completing degree courses in their University.

Punjab: The University framed the following regulation to meet the situation:—

“A student, who owing to the war has not been able to continue his studies abroad, shall be given facilities for admission at an appropriate stage in institutions affiliated to this University. The Syndicate shall appoint a small Committee to settle every such case individually on its merits.”

Travancore: The University authorities would be glad to comply with the suggestion of the Government of India regarding periods spent in British Universities.

COPY OF A NOTE FROM THE DIRECTOR OF PUBLIC INSTRUCTION, MADRAS, No. 3298-E.-40, DATED 10TH DECEMBER, 1940, REGARDING ITEM 9 OF AGENDA FOR THE SIXTH MEETING OF THE CENTRAL ADVISORY BOARD OF EDUCATION TO BE HELD AT MADRAS IN JANUARY 1941.

In my letter R. O. C. No. 3298-E.-40, dated 10th October 1940, the following subject was proposed for consideration at the next meeting of the Central Advisory Board of Education on account of its importance throughout India:

“Consideration of the facilities that are being offered in Indian Universities to students of British Universities who have returned to India on account of the war without finishing their courses.”

In response to a communication from the High Commissioner for India requesting Indian Universities temporarily to relax their rules in order to meet the needs of students of British Universities who have returned to India on account of the war without finishing their courses, the University of Madras passed a statute (reproduced in memo. on item 9 of agenda) quoted in my letter referred to above.

From this statute it will be seen that the University of Madras has decided to give students from British Universities full credit for the terms that they have kept, and for the courses or parts of courses taken in Great Britain. Further, persons who have not joined a University in Great Britain but who have passed an examination qualifying for admission to a British University have been granted the same privileges as regards admission in Madras University as they would have been entitled to in a British University.

These are the fullest possible concessions and they will be enforced in Madras for the duration of the war and for two years afterwards. It is not known what action has been taken by other Universities in India in this matter, and this subject was therefore suggested for consideration

in view of its importance throughout India. It was suggested that prior to the meeting of the Advisory Board information might be called for by the Board as to the action taken by other Indian Universities, so that the Board might be in a position to advise a uniform policy throughout India.

The question will also arise after the war as to what reciprocal recognition will be given by British Universities to such students on their return to Great Britain. In this connection the views of the Central Advisory Board would be helpful.

If, however, the Central Advisory Board is not in possession of particulars regarding the action taken in other Indian Universities it may be desirable to postpone consideration of this subject pending a reference on the question to the Inter-University Board which will meet at Trivandrum in January 1941.

APPENDIX I (g).

MEMORANDUM ON ITEM X OF AGENDA PLACED BEFORE THE CENTRAL ADVISORY BOARD OF EDUCATION.

Uniform system of nomenclature for the designation of teachers in colleges.

The teachers in Government colleges in the Central Provinces have been at present variously designated, *e.g.*, professor, assistant professor, lecturer, assistant lecturer, etc. Each category of these designations has its own scale of pay fixed by the Provincial Government. This wide variety of nomenclature does not, however, actually correspond to parallel differentiation of duties in as much as an assistant lecturer who holds the same academic qualifications as those of a professor or an assistant professor is called upon to take the higher or even post-graduate classes in the Government colleges.

2. The question of revising these designations with a view to simplifying and making them properly connotative in so far as teachers in Government colleges are concerned is under examination. The term "lecturer" for instance, may be considered a simple and appropriate designation for a college teacher. It may, however be that the existing designations of these teachers have given them a certain status in the eyes of institutions and universities outside this province, with whom they come into contact on academic matters such as appointment of examiners, etc., and that any revision as indicated above, of these designations might affect this status adversely.

3. The consideration of the general question "whether it is possible to adopt a uniform system of nomenclature throughout India for the designation of teachers in colleges" is therefore suggested for the consideration of the Central Advisory Board of Education.

APPENDIX I (b).

MEMORANDUM ON ITEM XII OF AGENDA PLACED BEFORE THE CENTRAL ADVISORY BOARD OF EDUCATION.

School medical inspection, school meals and physical training.

At the meeting of the Central Advisory Board of Health held in Poona in July last the Board considered memoranda which had been put forward on (a) the teaching of hygiene in schools, and (b) the medical inspection of school children in schools. These memoranda had been submitted by the Punjab Government, by the Madras Government and by the Educational Commissioner with the Government of India. After a fairly full discussion the Central Advisory Board of Health passed the following resolution:

“The Board, having considered the memoranda submitted by the Governments of the Punjab and Madras and by the Educational Commissioner with the Government of India on “The teaching of hygiene in schools” and on “Medical inspection of children in schools” considers that the two subjects are closely related. Systematic attention to the health of children is an essential preliminary to any really remunerative system of instruction whether it be in hygiene or other subjects in the curriculum. Where the physical condition of the child is unsatisfactory the money spent on educating him is largely wasted. The foregoing involves regular medical examination of school children, the treatment of illness and physical defects and the provision for undernourished children of such food as may be necessary to raise them to an average physical standard. Teaching is not likely to be a success if the general school environment does not conform to reasonable hygienic standards. Information is necessary as to what extent these requirements are met in the different provinces and how best existing defects may be remedied at the least possible cost.

The Board therefore recommends that the Chairman should appoint a special committee to report on the dual question of the teaching of hygiene in schools, primary as well as secondary, rural as well as urban, and of the medical inspection of school children and their treatment and, in the primary stage, also their nutrition.”

During the discussion the Hon'ble the Chairman stated that while the Central Advisory Board of Health might, consistently with its constitution and functions, express an opinion on the medical or the hygienic aspects of the propositions which were embodied in the memoranda, there was also the other side of the question, namely, the educational side and suggested that he might be authorised by the Board to bring the question up before the Central Advisory Board of Education at its next meeting so as to ensure that in this particular field in the Provinces the Ministers of Public Health and of Education, where they happen to be separate, should work together.

The Hon'ble the Chairman explained, with regard to appointing the special committee recommended by the Board, that it was his intention to have not merely two or three medical experts on it but two educational experts as well, so that the preliminary task of framing the questionnaire and determining the lines on which the enquiry should be made should be discharged with representative competence.

APPENDIX I (i).

MEMORANDUM ON ITEM XIII OF AGENDA PLACED BEFORE THE CENTRAL
ADVISORY BOARD OF EDUCATION.*Excision of undesirable passages from text-books prescribed for University studies.*

At the fifth meeting of the Central Advisory Board of Education held in Simla in May 1940, the question of the desirability or otherwise of excising undesirable passages from text-books prescribed for university studies was raised, and it was decided to refer it to the Inter-University Board for an expression of opinion. The Secretary of that Board, who was addressed in the matter, has replied that this question will be considered at its meeting to be held on the 15th and 16th January 1941. It will not therefore be possible to submit the views of the Inter-University Board on this subject until the next meeting.

APPENDIX I (j).

MEMORANDUM ON ITEM XIV OF AGENDA PLACED BEFORE THE CENTRAL
ADVISORY BOARD OF EDUCATION.

Some reasons for the necessity for humane teaching in schools in India.

It would appear desirable to draw the attention of teachers as well as parents to the emotional needs of children both in the home and in the school. There is a need for the teachings of humanity in order to create a gradual awakening to the consideration for the feelings of others—human beings as well as dumb animals.

There is a serious risk that a child who daily sees deeds of cruelty and acts of physical violence and who is used to witnessing unmoved, among the surroundings of his every day life, animals working with open wounds, or being beaten or starved may not shrink from cruel deeds himself. Callous to the sufferings of others he may grow from a hardened child into a cruel man with perverse or even criminal tendencies. The teaching of humanity is necessary for a balanced emotional growth and this teaching cannot be given fully and entirely without reference to the attitude towards the dumb creation. Teachers should have the necessity for humane teaching impressed upon them as of equal importance with other educational subjects and its place emphasized in the responsible task of character building which no true teacher, whatever his or her special subject may be, should ignore.

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Text books for schools.—There are not very many text books suitable for Indian schools available at the present time but "*Donald's Kindness to Animals*" published by McMillan & Co., Calcutta in Urdu, Hindi and Gurmukhi as well as in English is an excellent book to begin on. America has now made Humane Teaching in Schools a matter of great importance and there is a Teacher's Guide published in America which would be of great value. (Title, etc., can be procured).

The "*Small Lives Series*" obtainable from the Royal Society for the Prevention of Cruelty to Animals, 105, Jermyn Street, London, are specially written for children in the form of 12 pamphlets each on a different subject at 4 pence per dozen.

The Humane Guide, by A. E. Frederick, M.A., LL.D., contains in Part 1, 40 lessons for teaching humane subjects in grades above the primary, sufficient for the work of a school year together with 200 questions on the text, published by the Wisconsin Humane Society, Milwaukee, U. S. A. 1 dollar 25.

N.B.—Based on the material kindly supplied by Lady Lloyd, Honorary Secretary, S. P. C. A., Delhi.

APPENDIX I (k).

MEMORANDUM ON ITEM XV OF AGENDA PLACED BEFORE THE CENTRAL ADVISORY
BOARD OF EDUCATION.*Uniform Braille Code for the schools for the blind in India.*

When the question of the education of defectives was considered by the late Central Advisory Board of Education at its fourth meeting held in January 1922, the following recommendations with regard to the establishment of a uniform Braille System in India were made:—

- (i) That a committee should immediately be appointed by the Central Government to go into the subject of the possibility of a Uniform Braille for all Indian or all Indo-Aryan languages and frame such a uniform system.
- (ii) That at least one up-to-date embossing plant should be established somewhere in India to emboss literature for the blind; also a depot and workshop, where apparatus for the education of the blind could be produced and made available.

The Government of India, while in full sympathy with the proposal, were unable to accept the recommendations on account of the financial stringency prevailing at that time. In view of the non-acceptance of the proposal by the Government of India, the then Educational Commissioner suggested as an alternative that the Board itself might tackle the problem with the help of one or two deputed experts, but the Board at its fifth meeting held in May 1922, came to the conclusion that no action was possible at that time. Further consideration of the question was deferred as the Board was abolished in 1923, as a measure of economy.

2. In 1932, the National Institute for the Blind, England, also raised the question of setting up a Braille Printing Press in India and referred to the variety of Braille Codes followed in India. In this connection the Institute suggested the formation of an Advisory Committee on the lines of the Advisory Committee on the Welfare of the Blind in England. As the majority of the Provincial Governments, to whom this matter was referred, were not in favour of the proposal, it was dropped.

3. In 1934, the Government of Bombay forwarded a proposal regarding the adoption of Dr. Nilkanthrai's Indian Braille in all schools for the blind in India. A copy of this proposal is given in Annexure I to this memorandum. This proposal was forwarded to Provincial Governments for information and they were told that the Central Advisory Board of Education, when constituted, would be consulted in the matter.

4. At the first meeting of the resuscitated Central Advisory Board of Education held in December 1935, the proposal of the Government of Bombay mentioned in paragraph 3 above was placed before the Board, but it was not considered owing to lack of time. The general question of the education of the blind, deaf and dumb children was again referred to the Board at its second meeting held in December 1936. The inadequacy of the provision of educational facilities for defective children was recognised and it was recommended that the education of these unfortunates should not be neglected. At the third meeting of the Board held in January 1938, it was pointed out on the strength of the reports received from the Provincial Governments that the general attitude of the provinces was

that whatever funds became available should be spent in extending education among normal children and that these should have the prior claim. Accordingly, the Board decided that no further action could then be taken in the matter.

5. The National Institute for the Blind again raised this question in 1936, and suggested that if some of the teachers of the principal blind schools in India could meet and confer, it might be possible for some measure of agreement to be reached in the matter.

6. If the education of blind children is to be undertaken on the right lines and with due regard to economy, it is desirable that a unified Braille Code should be evolved for adoption in all the blind schools throughout India. At present, the position is extremely anomalous. In order to satisfy local needs, different adaptations based on the Standard English Braille system are used as Braille Codes for reading and writing the Indian languages. The following are some of the codes in vogue:—

- (1) "Urdu Braille" commonly called "Shireff" Braille.
- (2) "Indian Braille" known as Dr. Nilkanthrai's system.
- (3) "Oriental Braille" adopted by Knowles and Garthwaite, commonly known as Marathi Braille in Bombay.
- (4) "Sindhi Braille" by P. M. Advani of Karachi.
- (5) "Shah Braille" by the late Lal Behari Shah, founder of the Calcutta School for the Blind.
- (6) "Tamil Braille Alphabet" by Miss Asquith, founder of the Palamcottah School for the Blind.

Dr. Nilkanthrai's system appears to be the code most used in schools for the blind.

7. As Indian alphabets are more or less completely phonetic in their nature and the dialects derived from a common parent stock are, on the whole, very similar in their alphabets, it seems to be possible to standardise most of these for the purpose of a Uniform Indian Braille Code. If this were done, it would then be possible to have an up-to-date Braille Printing Press in India for printing books in Braille. So far however the problem does not seem to have received the consideration it merits and the attempts to solve it have been too sporadic to lead to any general solution.

8. The following extracts from the letter, dated July 1, 1940, addressed to the Director of Public Instruction, Bombay, by the Principal, Dadar School for the Blind, Bombay, indicate how important it is to secure uniformity in Braille Codes for educational use:—

"We firmly believe that standardisation of Indian Braille should be completed as early as possible in order to be able to further the cause of the blind.....We find it hazardous to change to any other code lest we should have to change over for the second time. We do not mind if we have to destroy only once our good collections of books in Marathi Braille.....We are keenly interested in seeing that a Uniform Indian Braille Code should be standardised by a competent and impartial All-India Committee so that it may be acceptable to all the provinces in India. We are not biassed for or against any particular code, devised by any

particular individual. But we have kept ourselves open-minded to accept any particular code or combination of codes which may be decided upon as the Uniform Indian Code by a competent and impartial committee."

9. The question of the desirability of evolving a Uniform Braille Code for the schools for the blind in India is again placed before the Central Advisory Board of Education. If the problem is to be tackled at all it needs to be tackled in a sustained manner. Moreover since it is largely a technical matter it would appear to be necessary to refer it in the first instance to a small committee of experts as was suggested by the previous Central Advisory Board. This of course takes it for granted that a share in the responsibility for providing educational facilities for defective children, a burden which at present in India unlike many other countries is borne almost entirely by private individuals and voluntary associations, will ultimately be assumed by the public authorities concerned with the provision of education.

10. A statement showing the number of schools for the blind province-wise with enrolment is given in Annexure II to this memorandum for the information of the Board. Also a copy of letter, dated the 9th July 1939, from Mr. H. D. Chhatrapati, late Principal, Victoria Memorial School for the Blind, Bombay, addressed to the Educational Inspector, Bombay, which has a direct bearing on the question before the Board, is enclosed as Annexure III.

ANNEXURE I.

Proposal of the Government of Bombay regarding the adoption of Dr. Nilkanthrai's Indian Braille in schools for the Blind in India.

LETTER FROM THE GOVERNMENT OF BOMBAY, No. 1411-II/F., DATED THE 8TH MAY 1934.

I am directed by the Government of Bombay (Transferred Departments) to refer to the correspondence ending with their letter from the General Department, No. 8661-B., dated the 31st May 1933, on the subject of the representations made by the National Institute for the Blind, London, regarding blindness in India. In Mr. Hydari's letter No. F. 78/32-H., dated the 16th/23rd May 1932, the views of the local Government were asked for on the proposal for the adoption of a common Braille system and references to this question also occur in the memorandum by Mr. W. G. Speight which accompanied Mr. Hydari's letter. In reply, this Government suggested that the aspect of the problem which at the present stage could be considered as requiring all-India action was the production of literature and provision of libraries for the blind.

2. It seems to the local Government that to achieve the purpose above set forth the adoption of a common Braille Code will be of great importance, and they are accordingly forwarding for the consideration of the Government of India a letter on this question from the Principal of the Victoria Memorial School for the Blind, dated the 14th November 1933, with its accompaniments, together with a copy of a letter from the Director of Public Instruction, Bombay Presidency, No. S.-67 (e)-216-A., dated the 17th April 1934.

3. I am to add that the local Government entirely agree with the Director that the problem raised in Mr. Chhatrapati's letter is of an all-India nature and that it can only be handled adequately by the Government of India.

LETTER FROM W. GRIEVE, ESQ., I.E.S., OFFICIATING DIRECTOR OF PUBLIC INSTRUCTION, BOMBAY PRESIDENCY, TO THE GOVERNMENT OF BOMBAY, No. S.-67 (E.)-216-A., DATED THE 17TH APRIL 1934.

I have the honour to send herewith a copy of a letter, dated 14th November 1933, (together with the accompaniments to it) from the Principal, Victoria Memorial School for the Blind, Bombay, in which he advocates that Dr. Nilkanthrai's Indian Braille should be uniformly adopted for all the Blind schools in India. He says that of 29 institutions for the Blind 24 are in favour of Dr. Nilkanthrai's Braille Plan. In the Bombay Presidency 11 out of 13 institutions support it. He, therefore, requests that Dr. Nilkanthrai's Indian Braille may be sanctioned and adopted as the Departmental Braille for this Presidency and that it may also be recommended to the Government of India for its wider and All-India adoption, as the Departmental Braille for the various provinces.

2. The problem of the education of defectives was investigated by a special Committee appointed by Government in 1917—*vide* G.O., E.D., No. 2518 of 13th October 1917. In paragraph 14 of their Report the Committee made the following observation:—

“In the Victoria Memorial School Dr. Nilkanthrai uses a system called the Indian Braille Alphabet. It is the English Braille

alphabet as regards lines, signs and sound arrangement and it is claimed for it that with the modification of a few signs it also meets the needs of all Indian vernaculars. His articles on the question are printed in an Appendix. Which of the two systems is superior is a question for experts to decide."

It will be seen that Dr. Nilkanthrai's Indian Braille has already come under investigations by a special Committee which has left the matter for further expert examination.

3. Mr. Chhatrapati in his letter under reference says that Dr. Nilkanthrai's Indian Braille has already been brought to the notice of the National Institute for the Blind in London with a request to support its general adoption in India. In this connection a reference is invited to the letter, dated the 26th January 1932, from the National Institute for the Blind to the India Office and the note of Mr. W. G. Speight, Principal of the School for the Blind, Palamcottah, accompanying it, sent to me with Government, G.D., No. 8661-B., dated the 13th/18th June 1932. It will be seen that Mr. Speight has expressed the opinion that he does not know that any single code has yet been tested in more than one or two languages and that whether or not it will ever be possible to secure universality it is impossible to say. He has made a suggestion that there should be one code for the Aryan and another for Dravidian languages.

4. The question raised by Mr. Chhatrapati is complicated and is one which requires expert investigation. It is also a problem of an all-India nature and I consider that it can only be handled adequately by the Government of India.

LETTER FROM MR. H. D. CHHATRAPATI, PRINCIPAL, VICTORIA MEMORIAL SCHOOL FOR THE BLIND, BOMBAY, TO THE DIRECTOR OF PUBLIC INSTRUCTION, POONA, DATED THE 14TH NOVEMBER 1933.

I have the honour to forward herewith for your kind perusal a copy of the letter I received from Mrs. Thomas, Superintendent of the American Mission School for the Blind, Dadar, Bombay, dated the 17th February 1933. It shows that she is quite willing to adopt Dr. Nilkanthrai's Indian Braille.

Years ago, Mrs. Shireff, the Author of Urdu and Hindi Braille whose alphabet is popular in Upper India, wrote to Dr. Nilkanthrai, pointing out to him how his alphabet was superior in several respects. Then as became a true Educationalist and sincere social worker, with the larger all-India interest of the Blind before her eyes, she wrote to all Christian workers in India about the merits of Dr. Nilkanthrai's Braille and recommended that it may be tested, tried and adopted for its many merits. She again put the alphabets before her friends in the West and requested the British and Foreign Blind Association, now the National Institute for the Blind, London, to consider its claims and to support its general adoption in India for its many merits.

Now, Mrs. Thomas, whose school is using the Oriental Braille for the last 32 years, comes forward and referring to Dr. Nilkanthrai's alphabet, writes to me "If Government will join us in recommending this system as the best, *because of its adaptivity to many of the Vernaculars and its*

likeness to the English Braille, and if it will do all it can in urging upon other schools to adopt this system, the unity of the situation will carry all the schools a long way''.

And if I request you to kindly couple that with the resolution given below, which Miss Craddock and Miss Blenkarn of the Rukambai Mission, Khedgam, Poona, moved and supported at the Conference of the All-India Workers for the Blind and the Deaf, of 1923, the situation will be still further simplified.

RESOLUTION.

“That in the preparation of the different codes of India it was desirable that the same signs represent similar sounds which they represent in English Braille, as far as possible.”

At that Conference met all the schools for the Blind in India, excepting the one at Lahore. Again, but for one teacher, the Conference unanimously passed that resolution. That same was confirmed, again, five years, at another Conference of the All-India Workers for the Defectives which met again in Bombay in 1928.

As I survey the situation today, I feel that my ten years' labours are more than paid at this opportunity which God puts in my way of moving you, in such company, that you may not only award your sanction and adopt Dr. Nilkanthrai's Indian Braille as the Departmental Braille for this Presidency, but you may recommend it again to the Government of India for its wider and All-India adoption as the Departmental Braille for the various provinces. In company of friends, foreign and local, I urge this point, as not only the Gujarati, Marathi, Hindi, Kanarese, Urdu and Sindhi languages so largely used in this Presidency, but even the Devanagari, Bengali, Oriya, Telugu and others have ten vowels and thirty-two consonants which are common to all, besides the *Anuswar*, punctuations and other languages signs found all over. All that may remain to do is perhaps to accommodate some peculiarities of some of the languages, and Braille's 63 signs give a wide berth for them. I feel sanguine that as Dr. Nilkanthrai's Indian Braille is the only alphabet that fully accords with the views expressed by the Bombay Government in their resolution of 1917, and as it is backed by 11 out of 13 institutions for the Blind, the Presidency Government will grant this joint request and adopt it as their Departmental Braille for this Presidency.

I urge again that Dr. Nilkanthrai's Indian Braille is the only alphabet that has so closely and yet so successfully adopted the English Braille, now so universally adopted as the International Braille for all the English-speaking Blind.

And that Alphabet is actually favoured and accepted by 15 institutions. Again its systematic arrangement to secure for itself worldwide unity is regularly upheld in daily practice by 9 institutions, 7 of Upper India which follow Mrs. Shireff's Urdu and Hindi Braille and 2 of the south which follow Mr. Speight's Palamcottah Braille. We have thus in all 24 out of India's 29 institutions for the Blind, all arranged in favour of Dr. Nilkanthrai's Braille Plan. Believing that such a strong position will be better backed by extracts from the letters of Mrs. Shireff and of Mr. Speight I append the same for ready reference.

I thus feel sanguine that the popularity which Dr. Nilkanthrai's Indian Braille and its plan enjoy all over the country will induce the Government of Bombay to fully feel their way to again advance its claims before the Government of India for its general adoption of the one uniform undivided Braille for all India.

DEMI OFFICIAL LETTER FROM MRS. G. ROSS THOMAS, SUPERINTENDENT, AMERICAN MARATHI MISSION SCHOOL FOR THE BLIND, BOMBAY, TO MR. H. D. CHHATRAPATI, VICTORIA MEMORIAL SCHOOL FOR THE BLIND, BOMBAY, DATED THE 17TH FEBRUARY, 1933.

In pursuance of our talk together some mornings back, let me state my position in regard first to the Braille. I am quite willing to adopt Dr. Nilkanthrai's system of Braille, working with you and others interested in the blind to find a way to solve what financial problems will arise from a change of books. I am willing to do this, if I can feel assured that in a few years, or even sooner, there will not come another move from some other angle urging the adoption of some other system, which might be taken up on such a large scale that we would again have to change. The way out of this seems to me to be to get the approval and backing of the Department of Education. If they would urge all schools using Braille for Marathi, to adopt this system (and I believe there are very few left who would need to change) we would all feel a much surer footing in discarding our old system. From this beginning we could all work towards the adoption of this system for those schools using other vernaculars to which this system is well adapted. Or better than this, we could ask Government to urge schools using Marathi, Gujarati and Hindi, to use this system. (Or a set of vernaculars which you might suggest, as you are more familiar with them.)

What we all in work with the blind in India need is an embossing press for our books. With a united system of Braille this would be much more possible and practicable.

Therefore, if Government will join us in recommending this system as the best, because of its adaptivity to so many of the vernaculars, and its likeness also to the English Braille, and if it will do all it can in urging other Schools to adopt this system, the unity of the situation will carry all the Schools a long way.

Then perhaps even before discarding our other Braille system books, we will be in a position to work hard and ask for help in getting an embossing press. This would then solve a lot of the difficulty of the new books which we would need, from the standpoint of time required in making them, and in their accuracy. Hand made books are not economical, for they are so shortlived. We must look for Government co-operation here. Certainly the blind *should* have facilities for books. With a unified system of Braille we should be able to do a great deal. Your system, arranged by Dr. Nilkanthrai seems to suit the demands, because of its adaptability to vernaculars and its likeness to the English.

1906.—*Extract from the letter of Mrs. Shireff, author of the Hindi and Urdu Braille.*—"I wish I had known of your arrangement sooner, for it is particularly suited to the Sanskrit alphabet. It seems a pity that the same should not be used for Hindi. Your arrangement of Braille has interested me very much. It has I think three great advantages—its

simplicity, the smaller number of signs allotted to the alphabet which leaves a larger number for contractions, the close resemblance to English. In these points, I think, it has some advantages over ours. It seems to me to be well adapted for use for Tamil, as that has not separate signs for hard and soft consonants, aspirates, etc. It is rather strange that an arrangement which is so simple and so like the English should be the work of Indian Scholars. I pointed out to the Blind Association (now the National Institute for the Blind, London), that your Code was well worthy of consideration for the three reasons I have given and also as being the work of highly educated Indian Scholars well qualified to judge of what is necessary and suitable. I also asked them to consider that it is spreading and likely to spread among Hindus. I have told the Reverend Mr. H. Pegg, Madras, of your Code, and suggested that as it is in use in Mysore, it might be the most suitable for use as a Uniform Code in South India”.

1921.—“It was most kind of you to interest yourself in the presentation of our Braille adaptation of Urdu to the Bombay Educational authorities.

I am still of the opinion that Messrs. Knowles “Oriental Braille” is not on good lines, so far as Braille is concerned and for Urdu it has no advantages, as regards alphabet arrangement whatever may be said for its following of Sanskrit alphabet. It has always seemed to me, that the arguments advanced in his pamphlet only go to prove that Sanskrit alphabet arrangement is scientific,—not that his Braille adaptation is and that after all is the main point.

* * * * *

I think it would be well to point out that your Code would also be used for Urdu, and that there might be advantages in its nearer approximation to English Braille, as also in having one code for both classes of Indian Alphabets. I do know how far the use of our code has spread, but if there is uniformity the sooner it is established the better”.

1930.—*Extract from the letter of Mr. W. G. Speight, regarding Tamil Braille, used at Palamcottah and to which Mr. Speight has added punctuations and composition signs*—“Uniform type has been introduced in this institution because it has the following advantages:—

1. Since the alphabets are no longer taught by a repetition nothing is lost by the rearrangement, but facility in learning is gained by the use of the seven-line system.

2. The system was possessed of a very good set of rules which could be adapted to meet the needs of any language without much difficulty.

3. By this usage it is possible to maintain world-wide uniformity.

4. It is equally adaptable to other Indian languages, or at any rate, to the Dravidian languages of the South.

5. It simplifies the study of foreign languages for any who wish to do so.

It will be noted that the adaptation follows the principle of equivalent sounds wherever possible, and in this connection it should be borne in mind that the same principle applies not only to English, but to all European languages. I am given to understand that this principle has also been applied in the case of Arabic and other languages in Africa.”

DR. NILKANTHRAI'S INDIAN BRAILLE, THE MOST POPULAR OF THE BRAILLE ALPHABETS OF INDIA AND OF THE BOMBAY PRESIDENCY.

This Presidency knows of only two Original Braille Alphabets.

- | | |
|--|--|
| 1. Accepting the Braille dot and his 63 dot combinations and no more, and following the Sanskrit order, system, symmetry, etc. | 2. Following the English Braille plan, order, etc. |
|--|--|

(a) With a strong bias for uniformity and pure Sanskrit complex.

(b) Loyal to the Sanskrit order but with reform complex.

(d) With strong bias for Uniformity and Universality.

1. The Oriental Braille of Messrs. Knowles and Garthwaites.

1. The Uniform Braille of Mr. Advani (Sindh).

1. Dr. Nilkanthrai's Ind Braille.

(Original)
Used at

(Modification)
Used at

(Original)
Used at

1. The A. M. School for the Blind, Dadar. After 32 years' use it now prefers Dr. Nilkanthrai's Indian Braille.

The School for the Blind, Karachi.

1. The V. M. School for the Blind, Bombay.

2. The Khedgam Home for Blind Women.

It uses the Oriental Braille but anxiously strives for the establishment of the Universal Braille for All-India, on English lines.

Much liking the Sanskrit order, symmetry grouping, etc., of the Oriental Braille it accepts in part the English Braille arrangement, i. e., its 10 letter lines, and its systematic development of the second, third, fourth and fifth lines from the first, besides its arrangement for numerals, punctuations and other language signs. Mr. Advani's Uniform Braille thus moves half way towards the English Braille.

2. The Happy Home for the Blind, Bombay.

3. The N. S. D. Industrial Home for the Blind, Bombay.

4. The School for the Blind, Poona.

5. The School for the Blind, Baroda.

6. The School for the Blind, Mahesana.

7. The School for the Blind, Bhanagar.

8. The Bahmachryashram, Junagadh.

9. The Vandhaya Ashram, Manjal, Cutch.

Vide its Resolution accepted by the Bombay Conference of 1923 and confirmed by the Conference of 1928.

Approved by

10. The Blind Relief Association, Bombay.

New Friends.

11. The A. M. School for the Blind, Dadar Bombay.

Agreeable in views.

12. The Khedgam Home for Blind Women, Khedgam.

NOTE.—Schools No. 1 and No. 2 are thus transferred to column 3 and marked as Nos. 11 and 12.

NOTE.—We have thus no institution left in column 1, but one in column 2, and 12 in column 3 making in all 13.

Of the 13 institutions of this Presidency, including the A. M. School which has lately announced its intention of adopting Dr. Nilkanthrai's Braille in preference to their present Oriental Braille, there are 11 institutions which actually go in for Dr. Nilkanthrai's Indian Braille.

The 12th, the Khedgam Home for Blind Women again seems agreeable in views with the Indian Braille Plan.

The 13th Mr. Advani's Karachi School, is the only Institution not bracketed with institutions that join Dr. Nilkanthrai, but Mr. Advani's Uniform Braille has carried the School half way towards the English, and thus towards Dr. Nilkanthrai's Indian Braille, with which it further agrees in having the same 10 vowels and the same 32 consonants at least as common ground, as both the Sindhi and Gujrati are of Sanskrit origin.

This Presidency thus presents the strongest case for the Departmental adoption of Dr. Nilkanthrai's Indian Braille.

Dr. Nilkanthrai's Indian Braille, the most popular of India's Braille Alphabets, and India knows of three Original Braille Alphabets and four Adaptations and Modifications.

They all accept Braille's Six-point Cell and his Sixty-three Dot Combinations. All call their alphabets Braille, and Classified belong to two Schools of Thought.

- I. Those that accept Braille's plan, order, arrangement, etc. With strong bias for *Uniformity and Universality*. II. Those that accept only the Braille signs, but accept not his plan and arrange their alphabet on the Sanskrit model, plan, etc. with a bias for *Uniformity*, but with no special bias for *Universality* or unity with the West, beyond the dot arrangement.

A. Original.		B. Adaptations.		A. Original.		B. Modifications.	
1. Mrs. Shireff's Hindi and Urdu Braille.	2. Dr. Nilkanthrai's Indian Braille.	1. The Mysore Braille of Mr. T. V. Venkatrao; for Kanarese, Telugu, Tamil, An adaptation of Dr. Nilkanthrai's Indian Braille.	2. The Palamcottah Braille of Mr. Speight for Tamil. Similar to the Mysore Braille probably adopted by Miss Ackworth and improved by Mr. Speight.	(a) With true Sanskrit complex.	(b) Loyal to the Sanskrit Order, etc., but with Reform Complex.	3. The Shah Braille.	4. Mr. Advani's Uniform Braille.
<i>Used at</i>	<i>Used at</i>	<i>Used at</i>	<i>Used at</i>	<i>Used at</i>	<i>Used at</i>	<i>Used at</i>	<i>Used at</i>
The School for the Blind at— 1. Dehra Dun. 2. Lahore. 3. Amritsar. 4. Allahabad. 5. Ranchi. 6. Aligarh. 7. Gwalior.	1. The V. M. School for the Blind, Bombay. 2. The Happy Home for the Blind, Bombay. 3. The N. S. D., Bombay. 4. The School for the Blind, Poona. 5. The School for the Blind, Baroda. 6. The School for the Blind, Mehesana. 7. The School for the Blind, Bhavnagar. 8. The Brahmacharashrama, Junagadh. 9. The Vandhaya Ashrama, Manjal, Cutch. 10. The School for the Blind, Nagpur. 11. The School for the Blind, Manpuri. <i>Approved by</i> 12. The Blind Relief Association, Bombay. <i>New friends.</i> 13. The A. M. School for the Blind, Bombay. <i>Agreeable in views.</i> 14. The Home for Blind, Women, Khedgam. <i>Adapted at</i> 15. The School for the Blind, Mysore.	1. Mysore.	1. Palamcottah. 2. Madras.	1. The School for the Blind at Ratanchintala. 2. The A. M. School for the Blind, Dadar, Bombay. It lately accepted the Indian Braille of Dr. Nilkanthrai. 3. Home for the Blind Women at Khedgam. Dissatisfied with the Oriental Braille. They moved and supported the resolution for an undivided Uniform Braille on the Standard English Braille Base in 1923 which was confirmed again in 1928. NOTE.—Dr. Nilkanthrai's Indian Braille alone seems to answer the requirements of their resolution. It is therefore just possible that they may adopt an alphabet which seems so agreeable.	1. Calcutta. 2. Patna; 3. Dibrugarh school for the Blind.	1. Karachi. Enamoured of the Sanskrit System, symmetry, etc., as also of the Oriental Plan and yet unable to resist the attraction of the English Braille, its beautifully arranged 10 letter lines, its systematic development of succeeding lines from the first, as also of its acceptance of numerals, punctuations and other language signs as International, Mr. Advani's Uniform Braille moves quite half way towards the English Braille, and to that extent again near to Dr. Nilkanthrai's Indian Braille which Mr. Advani's Sindhi and other Indian languages deals with the same vowel and the same consonant signs and consonant sounds which mostly appear in the same or nearly the same form in languages and dialects, be they of Sanskrit, or Arabic source. NOTE.—Here are 7 institutions which accept only the Braille dot and his 63 dot signs, but are for the Sanskrit arrangement. Of these the A. M. School for the Blind, Dadar, has lately accepted Dr. Nilkanthrai's Indian Braille, and goes out of this list. Similarly the Home for the Blind at Khedgam with its resolution of 1923, has declared its leaning, and is ready to leave the Oriental Braille, if there were a general consensus of working institutions, as many enable schools to solve the problem of books. Of the rest Karachi regularly runs on the wider and more largely accepted English plan and has actually left the Oriental Braille. The Shah Braille has alike preferred to part company with the Oriental Braille though it has modified it only slightly. Two more schools reading Bengali join it and use the Shah Braille because it is the only Braille available for Bengal. Ratanchintala is thus the only school that uses the Oriental Braille, and if rightly understood it does so probably because it has seen no other alphabet.	

NOTE.—Here are 24 Institutions which accept the English Braille plan, its order, arrangement, etc.
13 of these follow Dr. Nilkanthrai's Braille, one has recently adopted it, and one is agreeable to it. And they make 15 Institutions.
7 of the first column follow Mrs. Shireff, who says that Dr. Nilkanthrai's Alphabet is better than her own.
Of the adaptation Mysore's is a regular adaptation of Dr. Nilkanthrai's Braille and the line of the Palamcottah Braille is the same.
Here is a solid block of 24 out of 28 institutions in India which go in entirely for the uniform universal arrangement.

LETTER TO ALL LOCAL GOVERNMENTS (EXCEPT BOMBAY) AND ALL ADMINISTRATIONS (EXCEPT ADEN AND ANDAMANS), No. F. 2-16/34-E., DATED THE 29TH AUGUST 1934.

In continuation of this Department letter No. F. 78/32-H., dated the 5th July 1933, I am directed to forward, for information and such action as may be considered necessary, a copy of a letter No. 1411-II/F., dated the 8th May 1934, from the Government of Bombay, together with its enclosures. I am to add that the Government of India propose to consult the Central Advisory Board of Education in the matter, if and when it is constituted.

LETTER TO THE SECRETARY TO THE GOVERNMENT OF BOMBAY, EDUCATIONAL DEPARTMENT, No. F. 2-16/34-E., DATED THE 31ST AUGUST 1934.

I am directed to refer to your letter No. 1411-II/34-E., dated the 8th May, 1934, and to say that the Government of India propose to consult the Central Advisory Board of Education in the matter, if and when it is constituted. Pending the formation of the Board, however, they have forwarded a copy of your letter referred to above, together with its enclosures, to other local Governments and Administrations for information and such action as may be considered necessary.

ANNEXURE II.

Schools for the Blind, 1938-39.

Province.	Number.	Enrolment.
Madras	4	154
Bombay	2	101
Bengal	1	87
United Provinces	3	97
Punjab	2	83
Bihar	1	4
Central Provinces and Berar	1	41
Sind	1	48
Ajmer-Merwara	1	16
British India .	16	631

N. B.—So far as information is available, there are no schools for the blind in other provinces, and the figures given in the table relate to recognised schools only.

ANNEXURE III.

LETTER FROM MR. H. D. CHHATRAPATI, LATE PRINCIPAL, VICTORIA MEMORIAL SCHOOL FOR THE BLIND, BOMBAY, TO THE EDUCATIONAL INSPECTOR, BOMBAY, DATED THE 9TH JANUARY 1939.

In connection with my interview with you on the 4th instant, I beg to invite your attention to the special need that now arises in this Presidency in particular for the Departmental recognition of Dr. Nilkanthrai's Indian Braille as the universal Braille for its schools for the Blind.

I press this claim as schools multiply, and every delay, however unwarily made, is fraught with danger which swells with the ever increasing number of boys, learning the same language through more than one alphabet for one and the same language in each school.

I do so the more because this problem of the needless multiplicity of our Braille Alphabets troubles us the more as we have the largest number of schools, teach the largest number of languages, and claim pupils from all over the country, so far south as Comorin and so far north as Kashmere, North-West Frontier Province and Bengal, Bihar and even Assam in the East, as Rajputana in the Centre and all West and South as Baluchistan, Sindh, Cutch, and the Ghats on either side. And boys, when they go home and try to write to friends in local schools, find that though they too write Braille for their own tongue do it so differently. They have thus to teach their alphabet to others or to learn theirs. And they tell me that their friends find our alphabet so agreeable. And yet they are reluctant to adopt it because their school books are written on a different plan.

For this Presidency at any rate we have plain sailing. And I learn from the Commissioner of Education that the Advisory Board to whom the Bombay Government had sent my letters together with that of Mrs. Thomas' have all considered them, and the Advisory Board of Education have forwarded their recommendations to the Provincial Governments who are responsible for their education. And he has added that the Board has realised the necessity for the adequate provision of educational facilities for such children and recommended that the education of these unfortunates should not be neglected.

And for Bombay we have so many reasons to lead:—

1. It was my brother Dr. Nilkanthrai's blindness that gave us Blind Education when he started his first School for the Blind, in our home at Ahmedabad.
2. That School led him to advise this Braille alphabet.
3. That Alphabet is the result of the patient study of five Bombay Educationists who have studied the various wants of the All-India Blind.
4. That Alphabet is accepted by all Schools of this Presidency.

The two schools which do not use it to-day, have joined me in moving Government to give their sanction without which it would be difficult for them to induce their people to throw away their present books and incur new expenditure on new books.

6. The Indian Braille Alphabet has met with the approval of the successive Directors of Public Instruction, and Educational

Inspectors of this Presidency at least. The Director of Public Instruction, Bombay, so early as 1917, issued a resolution supporting this Braille for all Blind Schools that taught Sindhi, Urdu and even the Dravidian Languages as they had practically the same letters to deal with and because the Indian Braille was so similar to the English Braille.

7. And Bombay had, in its two All-India Conferences of Workers for the Blind, in 1923 and again 1928, unanimously resolved that Common Sounds in all the Indian Languages shall be expressed by the same Common Braille signs as in English. And that, that first resolution was moved by Miss Craddock of the Khedgam School, and supported by the vote of Miss Millard of the American Mission School, Dadar, who though both willing to accept and regularly use the alphabet, cannot do so for want of adequate provision of books in the new arrangement. And you have in your files the letters of the two schools showing how they are for the Departmental sanction.
8. And we have in all 17 out of India's some 29 institutions which actually teach Dr. Nilkanthrai's Indian Braille, and 7 more whose alphabets differ only very slightly from it. And they represent all the languages except Sindhi and Bengali.
9. And the 17 schools teach Gujarati, Marathi, Hindi, Urdu and Sanskrit.
10. And the Indian Braille is applied to 21 of the leading languages of India, including Sindhi.
11. And we want our Alphabet, for our present Presidency wants for Gujarati, Marathi, Hindi, Urdu and Kanarese to which it is already applied.

I have thus to request you to kindly consider, if we are going to seriously consider the question of the education of our Blind to decide if Government will not let Bombay again lead the country.

APPENDIX II.

Item VI of Agenda.

Report of the Scientific Terminology Committee of the Central Advisory Board of Education, 1940.

At the fifth meeting held in May 1940, the Central Advisory Board of Education considered the question of adopting a Uniform Scientific Terminology on an all-India basis. This question has been engaging the attention of certain Provincial Governments for sometime past and the Government of Bombay forwarded a note on the subject by their Deputy Director of Public Instruction, Mr. B. N. Seal, with a request that the question might be taken up by the Central Advisory Board. The main features of Mr. Seal's note were—

- (i) That a common scientific terminology should be fixed for India as a whole;
- (ii) That the question of an all-India scientific terminology should, in the first instance, be referred to an authoritative all-India body;
- (iii) That the main and common part of the scientific terminologies to be devised for the principal Indian languages should be borrowed extensively from the English terminology;
- (iv) That every Indian language should have the following three main divisions in its scientific terminology, *viz.*:—
 - (a) the main English terminology which will practically be the common terminology for all-India,
 - (b) the terminology peculiar to the Indian language—a very small section,
 - (c) Sanskrit or Perso-Arabic terminology—comparatively small in number—adopted or coined according as the language is Sanskritic or Dravidian or Urdu, Pushto or Sindhi;
- (v) That standard terminologies should be fixed for the various scientific and humanistic subjects such as Mathematics, Anatomy, Physiology, Economics, Scientific Philosophy, Modern Logic, etc.;
- (vi) That as soon as the tables of scientific terminology are settled, text books should be got written in the principal Indian languages for all grades of education and that all other terminology should be discouraged;
- (vii) That it should be commended to the Provincial Governments that they should set up small representative committees of experts in their areas to take up the work of fixing and standardising the terminology under (iv) (b) above; and
- (viii) That the Central Advisory Board of Education should set up a permanent Board of Reference whose views must ultimately be accepted by all educational authorities and organisations..

The Board, while expressing itself in favour of uniformity in the matter of adopting scientific terminology for regional languages in India, felt that the purpose in view could best be attained by following the English terminology, but in order that the question might be examined in greater detail decided to appoint the Committee named below, with power to co-opt:—

1. The Right Honourable Sir Akbar Hydari, LL.D., President of H. E. H. the Nizam's Executive Council, Hyderabad State—*Chairman*.
2. The Honourable Diwan Bahadur Sir K. Ramunni Menon.
3. Mr. S. C. Tripathi, I.E.S., Director of Public Instruction, Orissa.
4. Mr. W. H. F. Armstrong, I.E.S., Director of Public Instruction, Punjab.
5. Dr. Sir Zia-ud-Din Ahmad.
6. Pandit Amaranatha Jha, Vice-Chancellor, Allahabad University.
7. Dr. U. M. Daudpota, M.A., Ph.D., Director of Public Instruction, Sind.
8. The Educational Commissioner with the Government of India.

2. In accordance with the powers conferred on the Committee by the Board, the following were co-opted as additional members:—

- (1) Dr. Abdul Haque, Secretary, All-India Anjuman-e-Taraqqi-e-Urdu, Delhi.
- (2) Dr. S. S. Bhatnagar, O.B.E., Director of Scientific and Industrial Research.
- (3) Dr. Mozaffaruddin Quraishi, Professor and Head of the Department of Chemistry, Osmania University.

3. The Committee, as finally constituted, met at Hyderabad (Deccan), on the 15th and 16th October 1940. Pandit Amaranatha Jha was unable to be present on the 15th and attended the meeting on the 16th only. Mr. S. C. Tripathi did not attend. Nawab Mahdi Yar Jung Bahadur, Vice-Chancellor of the Osmania University and Education Member, Government of His Exalted Highness the Nizam, was present at the meeting by special invitation.

4. The Agenda and the other papers circulated along with it to the members are set out in Annexures I and II respectively. In addition, the following papers were circulated to the members:—

- (a) A note by Pandit Amaranatha Jha, Vice-Chancellor, Allahabad University (*vide* Annexure III).
- (b) A note by Dr. Abdul Haque, Secretary, Anjuman-e-Taraqqi-e-Urdu (Hind) (*vide* Annexure IV).
- (c) A note by Dr. Mozaffaruddin Quraishi, Professor and Head of the Department of Chemistry, Osmania University (*vide* Annexure V).

5. In opening the proceedings, the Chairman cordially welcomed the members of the Committee to Hyderabad. The members in return expressed their appreciation of the generous hospitality extended to them by the Government of His Exalted Highness the Nizam.

6. The Chairman stated that the problem of adopting a Uniform Scientific Terminology based on Urdu had been engaging the attention of the Osmania University for a considerable period and much work had already been done. He referred in particular to the principles followed by the Osmania University as since 1920 (these are embodied in the note by the Director of Public Instruction, Hyderabad, in Annexure II(c) and explained in detail the organisation and activities of the Bureau of the Osmania University constituted specifically for this purpose.

7. The point was raised in connection with the Committee's terms of reference as to whether the discussion should be confined to the pre-university stages of education or should embrace all stages. The Committee decided that the question should be considered in relation to all stages of education. Opinion was also general that it would be impracticable to prescribe the particular sciences in relation to which the main question should be considered or to investigate issues restricted to individual sciences. The Committee felt that they should confine themselves to exploring the general problem in its widest aspect.

8. The Committee considered it desirable as a matter of general principle that a common approach to the main problem should be sought for India as a whole though they were fully conscious of the practical difficulties in the way of achieving this object. It was felt that regard might usefully be had to the attempts already made or at present in progress in different parts of the country to solve this problem so far as the principal regional languages are concerned. There was general agreement that whatever terms were adopted, they should be as precise and simple as possible so that they may be understood not only by those engaged in educational institutions but also by the public at large. A large number of people all over India were already familiar with many English technical and scientific terms through their use in every day life. For this reason and more particularly because of the world-wide tendency in the more advanced stages of learning towards the adoption of an international scientific terminology, the Committee came to the conclusion that where international terms (in their English form) are already in common use in India, they should be retained and that in other cases the question of adopting them for Indian use should be considered before any attempt is made to invent Indian equivalents.

9. The Committee next considered the need for supplementing the international terminology, particularly in the earlier stages of education, by words of Indian origin and which would be acceptable in all parts of the country. The primary objection to this is that the regional languages do not derive from a common parent stock and in view of their radical differences any uniform terminology imposed from above would be exposed to the criticism that it was largely artificial. It was, however, thought to be both possible and desirable that through progressive stages some degree of uniformity might be reached so far as the two main groups of Indian languages are concerned, *viz.*, Hindustani which covers most of the languages spoken in Northern India and the Dravidian group for Southern India. Terms already existing or of simple coinage which would be readily understood throughout their respective groups would form a valuable second category. The coining of elaborate or pedantic terms based on classical languages is to be deprecated.

10. In the third category will fall those terms which are peculiar to regional languages and are in common use. Their retention is clearly

essential for the sake of intelligibility during the lower stages of education even though later on they may tend to be replaced by 'Indian group' or international terms. The stage at which and the means by which terms of wider acceptance whether 'group' or 'international' should be substituted for local names are questions which might usefully be explored by the Committee referred to in para. 11.

11. Having defined in broad terms the nature of the categories into which a scientific terminology for India should in their opinion be divided the Committee next considered how to determine the actual contents of each category and what machinery would be required for this purpose.

It was realised that in a matter of this kind finality was neither attainable nor desirable. Terms should be subject to revision in the light of internal experience and external developments. Moreover while it would be reasonable to expect a fair amount of agreement as the contents of the first or international category so far as the requirements of the more advanced stages of learning are concerned, at other stages there might be substantial variations in different parts of India dependent on the availability of suitable terms either common within one of the two main groups or peculiar to certain regional languages. While recognising that in such cases the final decision would have to be local and would naturally come within the purview of the Provinces and States concerned the Committee felt that some central committee of reference would be required to whom problems of general application could be submitted and that each of the two main language groups should have a committee of its own to offer advice on problems of terminology peculiar to its own group. The constitution of these Committees, which need not themselves consist of scientific or linguistic experts but should have power to co-opt experts or appoint *ad hoc* expert sub-committees, would have to be decided by the Central Government in consultation with Provincial Governments and States.

12. In connection with two matters of important detail the Committee decided—

- (a) that for all the sciences the international symbols and figures should invariably be adopted and that to avoid confusion mathematical propositions and questions should always be written from left to right even in those languages like Urdu where the script runs from right to left; ;
- (b) that the responsible authorities, assuming they accept the recommendations of the Committee, should take steps to secure that text-books are written in conformity with them.

Main conclusions and recommendations.

I. That in order to promote the further development of scientific studies in India, it is desirable to adopt a common terminology so far as may be practicable and full regard should be had to attempts which have already been carried out with this object in view.

II. That in order to maintain the necessary contact between scientific development in India and similar developments in other countries, the scientific terminology adopted for India should assimilate wherever possible those terms which have already secured general international acceptance. In view, however, of the variety of languages in use in India and of the fact that these are not derived from one common parent stock, it will be

necessary to employ, in addition to an international terminology, terms borrowed or adapted from the two main stocks to which most Indian languages belong as well as terms which are in common use in individual languages.

An Indian scientific terminology will therefore consist of—

- (i) An international terminology, in its English form, which will be employable throughout India;
- (ii) Terms borrowed or adapted from Hindustani or the Dravidian languages according to the affinities of the area, but avoiding as far as possible difficult words from Sanskrit, Persian or other classical languages;
- (iii) Terms peculiar to individual languages whose retention on the ground of familiarity may be essential in the interest of popular education. In the higher stages of education terms from categories (i) and (ii) may be progressively substituted for those in category (iii).

III. To ensure the steady and uniform growth of Scientific Terminology on an all-India basis, it is desirable that there should be a Central Board of Reference with expert sub-committees whose guidance on general issues and decisions on specific issues submitted to them would be accepted by Provincial Governments and other regional bodies concerned.

IV. That on the assumption that Indian languages may be divided into two main groups, *viz.*, (i) Hindustani, (ii) the Dravidian group, Boards should be set up for each group with the object of evolving a common terminology within the group.

V. That for the sake of uniformity, mathematical propositions and questions in Urdu should be written from left to right.

VI. That to promote uniformity and to encourage the widest possible use of the terms approved, the authorities responsible for authorising the use of text-books should see that only those are sanctioned which employ the terms in question.

(Sd.) AKBAR HYDARI (*Chairman*).

RAMUNNI MENON.

W. H. F. ARMSTRONG.

ZIA-UD-DIN AHMAD.

AMARANATHA JHA*.

U. M. DAUDPOTA.

JOHN SARGENT.

ABDUL HAQUE.

S. S. BHATNAGAR.

MOZAFFARUDDIN QURAISHI.

* Subject to note of dissent.

NOTE OF DISSENT BY PANDIT AMARANATHA JHA.

I object to the division of Indian languages into Hindustani and Dravidian. I am of opinion that there should be three rather than two groups—(1) Sanskritic, (2) Persian-Arabic, and (3) Dravidian.

ANNEXURE I.

AGENDA FOR THE SCIENTIFIC TERMINOLOGY COMMITTEE OF THE CENTRAL
ADVISORY BOARD OF EDUCATION IN INDIA.

1. To consider whether a common scientific terminology should be fixed for India as a whole, and if so, whether the main and common part of such a terminology should be borrowed extensively from the English terminology.

2. To consider whether every Indian language should have three main divisions in its scientific terminology consisting of—

- (a) the main English terminology which will practically be the common terminology for all-India;
- (b) the terminology peculiar to the language; and
- (c) Sanskrit or Perso-Arabic terminology, adopted or coined, according as the language is Sanskritic or Dravidian, or Urdu, Pushto or Sindhi.

3. To consider whether standard terminologies should be fixed for the various scientific subjects such as Mathematics, Anatomy, Physiology, etc.

4. To consider whether the Central Advisory Board of Education should set up a permanent Board of Reference whose views would ultimately be accepted by all educational authorities and organisations.

5. To consider any other matter that may be raised at the meeting.

ANNEXURE II.

(a) MEMORANDUM PLACED BEFORE THE CENTRAL ADVISORY BOARD OF EDUCATION IN INDIA AT ITS MEETING HELD IN MAY 1940, ON THE SUBJECT OF ADOPTION OF A UNIFORM SCIENTIFIC TERMINOLOGY FOR INDIA.

The question of adopting a uniform scientific terminology for regional languages has been engaging the attention of the Government of Bombay for sometime past. They accordingly asked Mr. B. N. Seal, I.E.S., their Deputy Director of Public Instruction, to prepare a note on the subject. That Government have now forwarded a copy of the note prepared by that officer, and desire that the question should be taken up by the Central Advisory Board of Education in order that a common scientific terminology acceptable to the whole of India may be evolved. The Government of Bombay are prepared to take up this work in so far as Marathi, Gujarati and Kannada are concerned.

2. A copy of the letter from the Government of Bombay together with a copy of the note prepared by Mr. Seal, in which the proposed scheme is fully explained, is appended for the information of the Board. For the sake of convenience the main features of the scheme are given below:—

- I. That a common scientific terminology should be fixed for India as a whole;
- II. That the question of an all-India scientific terminology should, in the first instance, be referred to an authoritative all-India body;
- III. That the main and common part of the scientific terminologies to be devised for the principal Indian languages should be borrowed extensively from the English terminology;
- IV. That every Indian language should have the following three main divisions in its scientific terminology, *viz.*—
 - (a) the main English terminology, which will practically be the common terminology for all-India,
 - (b) the terminology peculiar to the Indian language—a very small section,
 - (c) Sanskrit or Perso-Arabic terminology—comparatively small in number—adopted or coined, according as the language is Sanskritic or Dravidian or Urdu, Pushto or Sindhi;
- V. That standard terminologies should be fixed for the various scientific and humanistic subjects such as Mathematics, Anatomy, Physiology, Economics, Scientific Philosophy, Modern Logic, etc.;
- VI. That as soon as the tables of scientific terminology are settled, text books should be got written in the principal Indian languages for all grades of education and that all other terminology should be discouraged;
- VII. That it should be commended to the Provincial Governments that they should set up small representative committees of experts in their areas to take up the work of fixing and standardising the terminology under IV (b) above; and
- VIII. That the Central Advisory Board of Education should set up a permanent Board of Reference whose views must ultimately be accepted by all educational authorities and organisations.

3. The question of imparting education in India in all its grades through the medium of the Indian languages has assumed a great importance, and it is, therefore, considered desirable that the question raised by the Government of Bombay should receive the consideration of the Central Advisory Board of Education. The matter is accordingly placed before the Board for their consideration.

COPY OF LETTER No. 6671/F., DATED THE 23RD NOVEMBER, 1939, FROM THE GOVERNMENT OF BOMBAY.

SUBJECT:—*Adoption of uniform Scientific Terminology for regional languages.*

I am directed to state that the question of adopting a uniform scientific terminology for regional languages has been engaging the attention of this Government for sometime past. Mr. B. N. Seal, I.E.S., was asked to prepare a note on this question, a copy of which is appended. The Government of Bombay agrees with Mr. Seal that if a common Scientific Terminology acceptable to the whole of India is to be evolved, then the work should be undertaken by the Central Advisory Board of Education. I am accordingly to request you to move the Central Advisory Board of Education to take up this question.

2. I am also to state that this Government is prepared to take up the work so far as the following languages are concerned, *viz.*, Marathi, Gujarati and Kannada.

A NOTE ON THE QUESTION OF A UNIFORM SCIENTIFIC TERMINOLOGY FOR INDIA BY MR. B. N. SEAL, I.E.S., DEPUTY DIRECTOR OF PUBLIC INSTRUCTION, POONA.

1. A representative Committee of eminent scientific and technological experts with an intimate knowledge of the theoretical as well as the practical aspects of their respective subjects, can alone succeed in fixing a common scientific terminology which can be expected to be accepted by India as a whole. This Committee, it goes without saying, must be helped by a body of scholars in Sanskrit, Persian and Arabic. If the question of a scientific terminology for India is going to be solved on an all-India basis, with variations to suit regional needs, I think the Central Advisory Board of Education in India should be moved to take up this important problem, as in my opinion, it is the duty of that body to give an effective lead in such a matter. I will, however, go into certain general considerations which I hope will help to clear the issues. That our education in all its grades should be imparted through the medium of the Indian languages is today, almost a hackneyed statement and needs no reiteration. I doubt, however, whether many of those who advocate this policy understand its full and varied implications. Without the concurrent creation of the necessary literature for the teaching of all science subjects in our schools and colleges, the Indian languages cannot fruitfully be employed as the vehicle of instruction. All efforts in this direction are bound to be unsuccessful unless we consciously plan to achieve our ultimate objects. Some, no doubt, may think that it is the business of authors in general to devise and accept independently the necessary scientific terminology for the purpose of producing the appropriate literature. But I cannot share this view. If this important work is left to private initiative and enterprise, it is more than likely that parochial views will come in the way

of the cultural unification of India. I advocate, therefore, that the accepted terminology must be more or less on an all-India basis, and in the main that terminology should be the English terminology. I am suggesting later in this note that the Central Advisory Board of Education and the Provincial Governments should appoint the necessary committees in connection with this work. These committees, however, should not be given the option of adopting the policy of coining words of Sanskrit, Persian or Arabic origin except in a comparatively small percentage of the total number of scientific terms. I am aware that I shall be vehemently opposed in the view by a number of educational authorities in India, and yet I am convinced that this borrowing from a foreign tongue is not only necessitated by the circumstances of our complex educational problems, but it can also be defended on sound educational grounds.

2. This question of an Indian Scientific terminology cannot be settled by a small compact committee representing any particular language or locality. It has to be referred to an authoritative all-India body in the first instance, since, in my view no constructive proposals can possibly be forthcoming unless the question is examined from all its diverse aspects by competent persons.

3. I will, therefore, confine myself to certain general considerations, because I feel I am not competent to give expert advice in relation to all Science subjects, nor in relation to all Indian languages. I fully realise that many controversial issues can be raised in connection with this problem. In my considered opinion, however, the main and the common part of the scientific terminologies, which are to be devised for the principal Indian languages, should be borrowed extensively from the English terminology. In support of my views I give below certain arguments which will incidentally meet the usual criticisms that are levelled against the adoption of a foreign terminology in the body of the Indian languages :

(1) It may be maintained by some that the introduction of foreign words in the Indian languages is not in consonance with the sentiments of nationalism. To be frank, however, the very spirit of nationalism requires a uniform terminology to be used all over India as far as possible. The adoption of the English terminology will settle many a dispute between the pro-Sanskrit and pro-Perso-Arabic parties and will avoid the circumstance of having two entirely distinct and parallel terminologies. Modern science in every sense is a gift of the West, and it has been mainly developed in Western Europe during the last 300 years. I cannot understand how anyone could feel humiliated if he has to accept that science even in its native terminological garb. Knowledge is knowledge—Eastern or Western.

(2) It may be urged by linguistic authorities that foreign words, borrowed from any of the vernaculars of Europe, will spoil the 'sound' quality, and is to say, will mar the music and flow of our languages. This argument is, to a large extent, untenable because the majority of our Indian languages are rich in consonants and vowels, and therefore the imported foreign technical words will hardly cause any phonetic incongruities or consonantal discords, nor will they raise much difficulty by way of pronunciation. The transliteration of these foreign terms in Indian scripts will be comparatively speaking an easy task and slight variations in the pronunciation should not be forbidden as long as the adapted words or terms remain recognisable.

(3) These foreign terms, some critics point out, will lack native linguistic associations. It is difficult to say what exactly is meant by such a statement. Undoubtedly the scientific terms of the European languages were mainly drawn from Latin or Greek sources by the pioneers of scientific discovery. These terms were chosen not because they were considered to have any sacred and hoary associations, but mainly because they were found convenient, specially in view of the fact that no living language in Europe possessed a wider or more varied vocabulary than that of Latin or Greek. We must not also overlook the fact that the classical languages were almost universally used as the main vehicle of expression by scholars in all European academies. Again, the associations around these terms that appear now to be so firmly established, have really been a matter of natural growth due to the wide and prolonged usage that they have enjoyed in the general scientific literature of modern Europe for centuries. This question of literary associations raises, I am well aware, number of interesting and knotty problems in linguistics, semantics, and the psychology of languages, but I do not wish to enter into a disquisition on these and other allied topics. The two important but somewhat unacknowledged principles relating to this matter are briefly—

(a) The word 'beautiful' in any language acquires the associations of beauty.

(b) Good grammar and language in current usage is mainly bad grammar and language of a preceding age. King's English is, therefore, often bad English in current usage. In other words all languages are forms of *apabhransha*.

(4) The foregoing observations are not strictly speaking relevant to the main subject under discussion. Until very recently pure scientific literature was hardly tested by aesthetic standards. It may be that fashions among scientific writers are changing and before long all jargons, scientific, administrative, or otherwise, will reach the same standard of literary excellence. We must not ignore our Hudsons and Whiteheads.

The importation of foreign words in any language should not be discouraged as long as such words do not interfere with the structure and syntax of that language. For instance, the English language has benefited by a steady influx of foreign words from all parts of the far-flung British Empire. Imperialism has thus not only enriched the Britisher materially by an extension of his territories but also intellectually by a similar enlargement of his vocabulary.

(5) It may be held by some interested parties that free competition among text-book writers is all that is required, and in course of time, this will lead to the unconscious acceptance of the very terminology that we are seeking to establish. This laudable procedure, I need only point out, will entail the labour of several generations of writers before any definite achievement is made possible. A *laissez faire* policy in this respect is nothing but the postponement of the solution of the problem to a future date.

4. Although I have maintained that our main terminology should be English I must not be understood to mean that I do not advocate any terminology from indigenous Indian sources. Before I can say as to which terms should be borrowed and which should have their Indian equivalents, it will be necessary to give a broad and somewhat unscientific classification of scientific terms which would enable us not only to see the complexity

of our problems, but also to point out the way to solve a few of our difficulties. Broadly speaking, the main groups are—

(i) Names of concrete natural physical objects or phenomena (*viz.*, sun, moon, star, air, wind, water, lightning, thunder, echo, aurora borealis, earthquake, tree, grass, rose, stone, granite, mule, elephant, ant, vein, limb, metal, etc.). Such of these names as are easily available in any of the Indian languages should be accepted and the rest should be kept in their foreign forms.

(ii) Names of concrete physical objects or occurrent phenomena discovered by scientific analysis or investigation (*viz.*, proton, electron, positron, neutron, photon, Alpha particles, Beta ray, Xray, cosmic ray, ion. atom. molecule, radium, hydrogen, argon, anthrax, sodium, chromosome, neuron, gene, vitamin, enzyme circuit, eclipse, tide, spectrum, nebula, binary stars, Cepheid variables, etc.). Such names should be kept, as a rule, in their foreign forms. There may be a few exceptions.

(iii) Names of concrete artificial (man made) objects, instruments, apparatus, machinery, engines, etc. (*viz.*, barometer, telescope, microscope, galvanometer, gramophone, radio, calorimeter, battery, cathode, anode, dynamo, Davy's safety-lamp, tube, cylinder, piston, valve, transformer, insulator, eccentric wheel, rudder, anvil, furnace, watch, clock, table, screw, nail, mirror, prism, hinge, bolt, nut, pin, needle, Zeppelin, etc.). Such names should be adopted in their foreign forms except where convenient Indian terms are already in current usage.

(iv) Conceptual or abstract names (ideas) as well as adjectival names; these are of two kinds for the purposes of our classification:—

(a) concepts, abstract ideas, qualities, properties, names of subjects of study and of scientific theories, etc., which are of scientific importance and which are to be found in any of the civilized languages of the world (*viz.*, force, centre, volume, weight, dimension, unit, resistance, velocity, heliocentric, number, rotation, speed, impact, nutrition, action, reaction, sensation, size, measurement, pith, resonance, frequency, undulation, oscillation, latitude, longitude, equinox, surface, liquid, solid, gaseous, charge, radiation, dispersion, wave-propagation, centre of gravity, lines of force, Algebra-Geometry, Mathematics, etc.). Such names must be accepted in their native forms (Sanskrit, Persian, Arabic or in any Indian language as required) and names of complex ideas may even be coined from these basic sources, wherever necessary and feasible.

(b) Concepts, abstract ideas, qualities, properties, names of subjects of study and of scientific theories, etc., which have been adopted or specially coined during the course of scientific investigation, particularly in the post-renaissance period. Most of these terms or names are of a highly technical nature and may not have any direct or obvious connection with concepts mentioned under (iv) (a) (*viz.*, momentum, horse-power, erg-kilowatt, ampere, isobar, isotherm, thermodynamic potential, electromagnetic induction, electrolysis, atomic number, atomic weight, specific gravity, specific heat, valency, isotope, amorphism, diffraction, polarisation, achromatism, spectral lines, insulation, conductivity, radioactivity, dissociation theory, wave-mechanics, geodesics, principle of indeterminacy, photon, entropy, acceleration, corpuscular theory,

metabolism atavism, recessive characters, electromagnetism, Astrophysics, Mechanics, Electrodynamics, Hydrostatics, Trigonometry, Bacteriology, Entomology, Biochemistry, etc.). Such terms, with few exceptions, should be retained in their foreign forms.

(v) Names of scientific principles, theories or laws associated with the names of their discoverers, inventors, etc. (*viz.*, Boyle's law, Hooke's law, Doppler's principle, Brownian movement, Ohm's law, Planck's quantum, Raman effect, Wassermann test, Lorentz transformation, Copernican Theory, Darwinian Theory, Lamarckism, Mendelism, etc.). Such names should be kept in their original forms.

(vi) Symbolic systems with their constituent concepts devised for expression and development of mathematico-scientific thinking on an exact basis, eliminating the employment of language as far as possible. Most of the symbols in such systems are non-linguistic or what has been termed in recent literature 'illustrative' or 'shorthand'. These systems as well as the symbols should be incorporated in Indian scientific literature, though minor modifications and adaptations of any easy and intelligible nature are to be allowed. (Examples: The major part of pure and applied mathematics, symbolic or mathematical logic, chemical formulæ and other hybrid pictorial methods of scientific exposition, etc.)

(vii) Names of units of weights and measures as well as of other units of scientific measurement (perceptual or conceptual) should be adopted wholesale. Some of these names fall within the scope of groups mentioned above.

(viii) Proper names naturally are proper names and cannot have equivalents.

From the above classification it will be apparent that we are committed to the adoption of any complicated system of accepted nomenclature, which is valuable for purposes of systematic scientific classification and description. (Linnean nomenclature, Anatomical nomenclature, Geological nomenclature, Chemical nomenclature, nomenclature of the British Pharmacopia, etc.)

5. I have deliberately abstained from any reference to verbs in my divisions of scientific terminologies but any body of experts who will tackle the general question will have to bear this in mind and suggest methods of adaptation.

6. It is hardly necessary to point out that the publication of dictionaries and glossaries of technical scientific terms in the Indian languages is useless unless the published terminology has been previously given the stamp of recognition. Terminologies of this kind (published or unpublished) can hope to acquire the requisite amount of importance only when they are uniformly forced upon the writers of scientific literature. It has been suggested in some quarters that teachers of science subjects can help materially in bringing about a standard Indian scientific terminology into currency by means of oral teaching. This is a dangerous process. If the teachers are left free to introduce their own terminology to their own pupils, the prospect of the establishment of any uniform terminology will be greatly diminished. The resulting situation will become that of the Tower of Babel. In point of fact it is through the appropriate and recognised literature which is in constant use in educational institutions that any particular terminology can be effectively brought into usage and acceptance.

Again the question of terminology cannot be taken up by stages of education, that is to say, we cannot attempt at first to evolve and standardise the terminology suited to primary education and then to secondary and still later to university education. This cannot be done compartmentally for the obvious reason that some technical terms embodying scientific concepts, which are to be fully explained in text-books meant for the secondary stage must find mention in text-books belonging to the primary stage, and also the terminology of the university stage will, to some extent, delve into the terminology of the secondary stage. The whole question has, therefore, to be thrashed out, and the sooner we do it the better, because once a particular terminology is adopted unthinkingly for use in text-books as well as in the class-room, it will be very difficult to have it modified or removed afterwards.

7. As soon as the tables of our scientific terminology are settled by accredited authorities, our first duty will be to get text-books written in the main Indian languages for all grades of education. Apart from getting text-books written for use in educational institutions, there is the larger and equally important question of the creation of suitable popular literature in all modern sciences written in a style and manner which are intelligible to the layman. This type of literature will exercise a beneficent influence on the mentality of our literate population, including the so-called educated public, and will ease the course of social reform and propaganda. I must point out that the popular literature of the kind I have in my mind will make copious use of the most modern and up-to-date scientific ideas and concepts which are attracting the attention of the contemporary scientific world. All the more therefore, the question of an Indian terminology cannot be taken by stages or compartmentally. Half-hearted tinkering with these problems will not improve matters, and it is more than likely that we shall have to plan out the completion of our scheme for the production of scientific literature within the space of not less than two decades. There is no room for local and narrow-minded solutions of our problems, and text-books written in non-recognised terminologies must be ruthlessly weeded out. In educational matters defective organisation is often much more deplorable than no organisation, to wit our present system of education.

8. One of the important considerations that has persuaded me to accept a foreign terminology in a major part is the fact that our students in scientific and technological subjects will have to go mainly to British and other European Universities for their advanced studies and research work. India cannot be brought to the forefront of the scientific world in a day. Without question, India has produced one of the world's greatest mathematicians in the present century. Ramanujan is only the beginning of India's modern career in pure science. Other eminent men of science have already appeared on the scene and are winning world reputation. Nevertheless many of our students will have to go abroad for higher technological and scientific training for some time to come. In my view they should, at no stage of their education, be forced to discard any considerable part of the terminology which they will have learnt in India, and be taxed with the learning of thousands of new terms in a foreign tongue. We should, therefore, see that our students may not have to waste their mental energy in learning, unlearning, and relearning different sets of terms. The proposed predominantly English terminology will have many other advantages. The poorest boy in the village will be able to go up to the university and will

not feel himself cut off from the higher spheres of education. There should not be, under any condition, two brands of education, one Indian and meant for the poor and depressed country folk, and the other Europeanised and meant for the urban population and affluent classes. Further it should be borne in mind that a large number of Indian students will be trained in advanced and research work in the Science and Technological Colleges of this country, and they will have to keep themselves abreast of the up-to-date and modern developments in their subjects, which are reported in the scientific journals and proceedings of learned societies. Most of these journals are and will be written in European languages, and therefore, a knowledge of the Indian terminology, if it is mainly English, will be not only extremely convenient but also very desirable. I fully realise that these research and advanced students will have to learn a European language (generally English), if their training is to be effective. The standard of quality of the knowledge of a foreign tongue that is required for such purposes is easily attainable. As an example I might mention the ease with which professors of scientific subjects are being exchanged between different European countries. This is possible because the main scientific terminology is tending to become uniform all over Europe. Science is universal, so should be the scientific terminology within limits. Professor J. B. S. Haldane rightly observes: "Science is an international concern. Any paper on pure science becomes the property of the whole world the moment it is published, and the special scientific terminology so frequently termed jargon is, with all its faults, an international language. One can get the gist of a scientific paper in any European tongue, and even amid a wilderness of Japanese script one comes across cases of mathematical expressions, numerical tables, and chemical formulae."

9. Another point of interest is that, whether we like it or not, a number of English technological and scientific terms have already been accepted in our workshops, firms, yards, etc. Even the illiterate railway-workers, mechanics, motor drivers, fitters, etc., are at present well-acquainted with that part of English technological terminology which comes within the routine of their daily activities and avocations. We cannot drive out the English terminology from the life of these people by publishing literature in Indian terminology in the form of glossaries and dictionaries and text-books.

10. In my scheme the Sanskritic terms which should be adopted in our scientific terminology must be the same in most Indian languages. Similarly Perso-Arabic terms are bound to be adopted in such languages as Urdu, Pushto, Sindhi, etc. To put the matter in a nut-shell, every Indian language will have the following three main divisions in its scientific terminology:

(X) The main English terminology (practically the common all-India terminology).

(Y) The terminology peculiar to any of the Indian languages (a very small but variable section, each language having its own independent section).

(Z) (a) The Sanskritic terminology adopted or coined for all Sanskritic or Dravidian languages, or

(b) The Perso-Arabic terminology similarly adopted or coined for Urdu, Pushto, Sindhi, etc. (Both sections comparatively small, the Sanskritic section for one group of languages and the Perso-Arabic section for another).

N.B.—The X, Y and Z classes in respect of any given languages are mutually exclusive, although they need not be identical in extension with the three respective classes of any other language. I do not wish to enter into the further logical niceties of this division.

As and when Hindustani, in the form of a mixture of Hindi and Urdu, becomes current and is accepted as the common all-India language, the section (Z) relating to it will, as a matter of course, become a convenient component of (Z) (a) and (Z) (b) mentioned above.

The Indian parts of the terminology mentioned above must be fixed by bodies of experts. However, it should be borne in mind that ultimately the choice of these technical terms will be, to a certain extent, arbitrary. In Europe also the choice of the scientific terminology in current usage had been arbitrary, that is to say, the actual terms that are current today were fixed by scientific discoverers and thinkers according to their own imaginative likings. In India we cannot go through this natural process and gallantly propose to remake history. Without wholesale borrowing, the task of inventing our own terminologies will be of a stupendous magnitude, hardly realised by our scientific—or is it unscientific?—enthusiasts, and is beyond the capacity of the men available in India for this purpose. The time-clock cannot be pushed back, in spite of Einstein. Therefore our terminology must be determined mainly on the basis of what has already been achieved by the patient labour of generations of European Scientists. To think otherwise is pure obscurantism. A body of eminent Indian scientists is alone competent to undertake this task in close consultation with one another and they will have to indicate the general lines or principles upon which the work of fixing the different local terminologies is to proceed. They will have to recommend a hybrid terminology if they mean business, and a hybrid terminology it should be. There is no such thing as absolute perfection in these matters—Einstein vindicated!

11. I believe that the Central Advisory Board of Education will advise the local Governments to set up small representative committees in their respective provinces and to take up the work of fixing and standardising the different terminologies coming under (Y) of para. 10 based on certain general principles laid down by the Board. The work in connection with the fixing of the sections (X) and (Z) of para. 10 will require wider and more representative committees.

With regard to the common Sanskritic terminology mentioned in (Y) (a) of para. 10 it is probable that an inter-Provincial committee, helped by Sanskrit scholars, will be in a position to evolve an agreed terminology which will have the prospect of acceptance by Sanskritic India as a whole.

The Bombay University should be associated with the work of our Provincial terminologies. The Mysore University must also be consulted in the case of the Kannada terminology and the University of Nagpur in the case of Marathi. With regard to the Urdu terminology, we shall have to seek the advice of the Osmania University, Hyderabad, the Muslim University, Aligarh, the Anjuman-e-Taraqqi-e-Urdu, Aurangabad, and the Jamia Millia Islamia, Delhi, and the final Urdu terminology evolved by these bodies and other authorities should be used by the Urdu-speaking population of India. Besides, this part of the work as has been hinted above in the case of Sanskritic terminology is not the concern of one province only.

Probably the Central Advisory Board of Education will find it necessary to set up a permanent Board of Reference whose views must ultimately be accepted by all educational authorities and organisations.

12. It is not possible to give anything like a complete list of the scientific and technological subjects for which we are in immediate need of technical terminologies. A tentative list may, however, be offered:—

1. Mathematics.
2. Astronomy.
3. Physics.
4. Engineering.
5. Some of the main branches of technological subjects.
6. Chemistry.
7. Geology.
8. Botany.
9. Zoology.
10. Anatomy.
11. Physiology.
12. Hygiene.
13. Geography.
14. Psychology, etc.

The list suggested above will have to be revised and modified by experts who have a first-hand knowledge of the actual and immediate needs of our country. It is almost certain that other branches of pure and applied science than those mentioned in the list will deserve our attention. For instance, the whole of medical and veterinary science.

In this connection it may be mentioned that there is also a necessity for fixing standard terminologies for the following more or less humanistic subjects:—

1. Economics.
2. Political science.
3. Anthropology.
4. Sociology.
5. Modern logic.
6. Scientific philosophy.

13. One more point; and that is that the scheme adumbrated in this note may be sent to the Honorary Visitors of the Royal Institute of Science, Bombay, for remarks and criticisms.

EXTRACT FROM A LETTER NO. 11/2457, DATED THE 10TH FEBRUARY 1940, FROM
THE PRINCIPAL, ROYAL INSTITUTE OF SCIENCE, BOMBAY.

Scientific Terminology—Adoption of uniform—for regional languages.

With reference to the correspondence ending with your letter No. 711-C of 7th February 1940, on the subject mentioned above, I have the honour

to say that so far only two out of the four Honorary Visitors have replied. Their opinions are as under:—

(i) *Dr. S. S. Bhatnagar, Director, University Chemical Laboratories, Lahore.*

“I agree whole-heartedly with the suggestion of Mr. Seal and shall be glad to do whatever I can in the materialisation of his suggestions.”

(ii) *Dr. Birbal Sahni, Professor of Botany, University of Lucknow.*

“It is apparently a very thoughtful document, containing many valuable suggestions.”

* * * * *

3. *The Srishti Dnyan Association* is endeavouring to compile similar collections in other branches of science—Botany, Zoology, Chemistry, Mathematics and Medicine; but the work is considerably handicapped for want of finances.

4. It can be seen from the published articles that the views expressed therein are almost identical with those expressed by Professor Seal.

LETTER FROM THE GOVERNMENT OF BOMBAY, No. 6671-F., DATED THE 24TH APRIL 1940, WITH ENCLOSURE.

Scientific Terminology—Adoption of uniform—for regional languages.

In continuation of this Department letter No. 6671-F., dated the 1st April 1940, on the subject noted above, I am directed to forward herewith 2 copies of the letter dated the 13th March 1940, from Professor G. Mathai, which contains his views on Mr. Seal's note on Scientific Terminology. The views of the fourth Honorary Visitor are still awaited.

COPY OF LETTER, DATED THE 13TH MARCH 1940, FROM PROFESSOR G. MATHAI, GOVERNMENT COLLEGE, LAHORE.

I have to thank you for sending me a copy of ‘A Note on the question of a uniform Scientific Terminology in India’ by Mr. B. N. Seal, I.E.S., which I have now read with much interest.

If it is finally decided that higher education (at College and University) and research publications in India are to be in the vernacular, it will be advisable to have a common Scientific Terminology. But it seems to be a complicated question to settle whether the Terminology should be taken from any of the European Languages (classical or modern) or from languages in India. Personally, I am doubtful, if higher scientific teaching and research can be properly carried on in India in any language other than English. It will certainly be helpful, if this general question is discussed by the Central Advisory Board of Education in India in the first instance.

I am sorry for the delay in replying, which was solely due to pressure of other work.

(b) EXTRACT FROM THE PROCEEDINGS OF THE FIFTH MEETING OF THE CENTRAL ADVISORY BOARD OF EDUCATION IN INDIA HELD IN MAY 1940 (PARAGRAPH 16).

* * * * *

16. *Item 14.*—The question of adopting a uniform scientific terminology for regional languages has been engaging the attention of the Government

of Bombay for sometime past. They accordingly asked Mr. B. N. Seal, I.E.S., their Deputy Director of Public Instruction, to prepare a note on the subject and forwarded a copy of it with a request that the question should be taken up by the Central Advisory Board of Education in order that a common scientific terminology acceptable to the whole of India might be evolved. The matter was placed before the Board for its consideration. The Note prepared by Mr. Seal had been previously circulated to its members. The main features of the scheme contained therein are given below:—

- (i) That a common scientific terminology should be fixed for India as a whole;
- (ii) That the question of an all-India scientific terminology should, in the first instance, be referred to an authoritative all-India body;
- (iii) That the main and common part of the scientific terminologies to be devised for the principal Indian languages should be borrowed extensively from the English terminology;
- (iv) That every Indian language should have the following three main divisions in its scientific terminology, *viz.*:—
 - (a) the main English terminology, which will practically be the common terminology for all-India,
 - (b) the terminology peculiar to the Indian language—a very small section,
 - (c) Sanskrit or Perso-Arabic terminology—comparatively small in number—adopted or coined, according as the language is Sanskritic or Dravidian or Urdu, Pushto or Sindhi;
- (v) That standard terminologies should be fixed for the various scientific and humanistic subjects such as Mathematics, Anatomy, Physiology, Economics, Scientific Philosophy, Modern Logic, etc.;
- (vi) That as soon as the tables of scientific terminology are settled, text books should be got written in the principal Indian languages for all grades of education and that all other terminology should be discouraged;
- (vii) That it should be commended to the Provincial Governments that they should set up small representative committees of experts in their areas to take up the work of fixing and standardising the terminology under iv (b) above; and
- (viii) That the Central Advisory Board of Education should set up a permanent Board of Reference whose views must ultimately be accepted by all educational authorities and organisations.

While expressing itself in favour of uniformity in the matter of adopting scientific terminology for regional languages in India, the Board felt that the purpose in view could best be attained by following the English terminology. In order, however, that the question may be examined in detail the Board decided to appoint the Committee named below, with power to co-opt:—

1. The Right Hon'ble Sir Akbar Hydari, LL.D., President of His Exalted Highness the Nizam's Executive Council, Hyderabad State. *Chairman.*

2. The Hon'ble Diwan Bahadur Sir K. Ramunni Menon.
3. Mr. S. C. Tripathi, I.E.S., Director of Public Instruction, Orissa.
4. Mr. W. H. F. Armstrong, I.E.S., Director of Public Instruction, Punjab.
5. Dr. Sir Zia-ud-Din Ahmad.
6. Pandit Amaranatha Jha, Vice-Chancellor, Allahabad University.
7. Dr. U. M. Daudpota, M.A., Ph.D., Director of Public Instruction, Sind.
8. The Educational Commissioner with the Government of India.

The Committee's report when submitted will be examined by the Board.

* * * * *

(c) NOTE BY THE DIRECTOR OF PUBLIC INSTRUCTION, HYDERABAD, ON THE SUBJECT OF ADOPTION OF A UNIFORM SCIENTIFIC TERMINOLOGY FOR INDIA.

The issues raised in the note prepared by Mr. B. N. Seal on the subject of a uniform scientific terminology for India are as important as they are controversial. There can be no two opinions on the question of adopting a common scientific 'terminology' provided one is clear in one's mind as to what, exactly, is meant by 'terminology'. Mr. Seal does not seem to be very clear on this point, and as he has himself admitted in paragraph 4 of his note, his classification of the terms which should be imported into the Indian languages in their present form is "broad and somewhat unscientific".

Mr. Seal's note does not disclose any knowledge of the great work of compiling technical terms in *Hindustani* on which the Osmania University has been working for the last 20 years. A study of the methods followed at the Bureau would have been helpful in clearing some of the misunderstandings which Mr. Seal seems to entertain.

The question as to whether the English terminology used in scientific books should be retained in translations, and if so to what extent, was examined in the Osmania University as far back as 1920, and the University Council in its meeting held in May 1920, passed the following resolutions:—

- (a) Resolved that in view of the immense difficulties with which the evolution of a complete system of indigenous nomenclature is beset, and the facilities accruing from the use of international nomenclature in the prosecution of research and further study in other branches of learning like Medicine, Engineering, etc., it is advisable at present to adopt the latter;
- (b) That the international terms used be written both in English and in Urdu in the body of the text;
- (c) That the international formulæ and symbols be adopted; and
- (d) That the movement for coining Urdu equivalents be kept up, and that the co-operation of learned bodies outside the State should be solicited so as to evolve a common nomenclature.

In the light of the principle laid down in the resolution quoted above, technical terms used in the Osmania University translations have been divided into the following three groups:—

- (i) Nomenclature,
- (ii) Notation,
- (iii) Terminology.

Words coming under group (i) are not translated, but are incorporated in their English form. Thus names of Elements and their compounds, names of gases in Chemistry, and the names of phylum, classes, orders, genus and species in Biology are treated as international and retained in their original forms.

Words coming under group (ii)—Notation—belong mostly to mathematics. These symbols and abbreviations are translated like the full terms of which they are the symbols.

Under group (iii)—Terminology—are included all those scientific words which are either names of phenomena, properties, processes, apparatus, etc., or such terms as Heat, Light, Electricity, Sound, Magnetism which have connotations in common language also. These words form by far the largest part of scientific vocabulary, and have necessarily to be translated if a student has to understand scientific thought in his own language.

The above is the only scientific classification, for purposes of translations, that has ever been attempted in any Indian language, and experience at the Bureau and the lecture-rooms of the Osmania University has proved beyond doubt that it is the only sound method, consistently with the policy of imparting instruction in the highest Arts and Sciences of the West, through the medium of an Indian language. This experience will prove invaluable in any attempt that is contemplated to form an All-India Terminology.

To take some examples from the classification suggested by Mr. Seal (para. 10 of his note), if we are to retain terms such as 'spectrum', 'nebula', 'prism', 'valency', 'conductivity', 'radio-activity', etc., in their original English form, what shall we do with their derivatives such as 'spectral', 'spectroscope', 'spectrometer', 'nebulous', 'prismatic', 'prismatically', 'monovalent', 'di-valent', 'conductive', 'conductor', 'conductiveness', 'radio-active', etc. Experience at the Osmania University has shown that where a technical term has a number of derivatives, it is always not only desirable, but also necessary, to translate it in order to express properly the different shades of meanings of the derivatives. This becomes all the more necessary where a technical term is also used in ordinary language.

The Osmania University has always been liberal and open-minded in its handling of the scientific terms. It has never allowed sentimental considerations of the kind mentioned by Mr. Seal (paragraph 3 of his note) such as "national vocabulary" or "beauty of sound" or "native linguistic associations" to stand in the way of its determination to transfer the highest thought of the West into Hindustani. Nevertheless, it is felt that the adoption of Mr. Seal's classification of terms which should be borrowed exclusively from the English vocabulary, would militate against the very purpose which it is intended to serve, namely, that of disseminating scientific knowledge through the medium of the Indian languages.

Nearly 80 per cent. of the technical terms used in scientific text-books fall under the category of terminology as defined above, and to retain them in their original English form would mean, in effect, the retention of English as the medium of instruction.

Mr. Seal's suggestion (paragraph 11 of his note) that a permanent Board of Reference should be set up whose views must ultimately be accepted by all educational authorities and organisations is a valuable one. It should be one of the duties of this Board to decide, in the light of experience gained at the Osmania University, as to which category of terms should be incorporated into the translations in their present form and which should be translated.

A word about Mr. Seal's division of terminology mentioned in paragraph 10 (X, Y, Z) of his note. He has included Urdu in the Perso-Arabic group, which is only a half-truth. With all its verbs derived from the Brij Bhasha, and being a composite language, Urdu has a greater claim to be made a basis of terminology than any other language and the present technical terms coined at the Osmania University may well serve the purpose of an All-India terminology.

(d) COPY OF A LETTER No. 34997-B.-1, DATED THE 12TH SEPTEMBER 1940, FROM THE GOVERNMENT OF MADRAS, TO THE DEPARTMENT OF EDUCATION, HEALTH AND LANDS.

Reference: Your letter No. F. 10-10/40-C. A. B. (C), dated 23rd August 1940.

The first official attempt at producing lists of scientific terms in Indian languages was made in 1923 when this Government appointed a Committee for the purpose of compiling such lists in the four main languages of this Presidency. This Committee completed its work in 1931 and the lists made by them were printed at the Government Press. These lists have not been looked upon as complete nor have they received universal acceptance by scholars. The lists were not accordingly specially approved by Government for use in schools.

2. Owing to a decision taken by Government that as from the school year 1938-39 the use of the mother tongue as the medium of instruction should be begun in the IV Form of secondary schools and continued in successive years in the V and VI Forms, the question has now acquired added importance. In June of this year the Government appointed a Committee of officials and non-officials for the purpose of settling the general principles on which a uniform system of standardised technical and scientific terms could be introduced in the Indian languages of this province. This Committee has just sent in its report. I am to forward a copy of this report and to add that the report is under the consideration of Government. The report is being published.

REPORT OF THE TECHNICAL TERMS COMMITTEE.

The Government in their Order No. Ms.-1051-Education, dated the 8th June 1940, appointed a Technical Terms Committee with the following terms of reference:—

- (1) (a) To what extent the equivalents of foreign technical terms in the South Indian languages which are now in use are acceptable for educational purposes;

- (b) Whether it is desirable to retain for school purposes the use of English technical terms where there are no accepted equivalents in the South Indian languages;
- (2) Whether in the alternative it is necessary to draw up new and standardised lists of equivalents of certain foreign technical terms for all the South Indian languages;
- (3) What direction should be issued to publishing houses and authors in regard to the decisions arrived at on references (1) and (2).
2. The following were the Members of the Committee:—
1. The Rt. Hon. V. S. Srinivasa Sastri, P.C., C.H., M.L.C., (Chairman).
 2. Dr. C. R. Reddi, M.L.C., Vice-Chancellor, Andhra University.
 3. Mr. R. M. Statham, C.I.E., Director of Public Instruction.
 4. Mr. H. C. Stagg, Messrs. Macmillan & Co., Madras.
 5. Mr. A. Daniel, Headmaster, Christian College High School, Guntur.
 6. Sri T. Suryanarayana, Principal, Government Arts College, Rajahmundry.
 7. Vidwan G. J. Somayaji, Andhra University.
 8. A representative of the Madura Tamil Sangam; Sri T. C. Srinivasa Ayyangar, B.A., B.L., M.L.C.
 9. Sri N. Venkatarama Ayyar, Headmaster, Zamorin's College High School, Calicut.
 10. Sri T. Rama Pisharodi, Commercial Instructor, Government College High School, Mangalore.
 11. Miss C. L. Kausalya, Lecturer, Queen Mary's College, Madras.
 12. Sri Rao Bahadur M. C. S. Anantapadmanabha Rao, Retired Professor of Physics.
 13. Dr. Muhammad Abdul Huq, Principal, Government Muhammadan College, Madras.
 14. Sri V. Rajagopala Ayyar, Headmaster, Board High School, Kollegal (Coimbatore).
 15. Professor K. Swaminathan, Addl. Professor of English, Presidency College, Madras (Secretary to the Committee).

3. The Committee met in the Committee Room of the Legislature, Fort St. George, on Monday, 24th June, on Tuesday, 25th June and on Monday, 15th July 1940, each day at 11 A.M., with the Rt. Hon'ble V. S. Srinivasa Sastri in the Chair.

4. Dr. C. R. Reddi was absent owing to ill-health on the first two days and Mr. T. C. Srinivasa Ayyangar was absent on the 25th June. All the members of the Committee were present on the 15th July.

5. The Committee had before it—

- (a) a confidential memorandum on Uniform Scientific Terminology for India by Mr. B. N. Seal, I.E.S., Deputy Director of Public Instruction, Poona, submitted to the Central Advisory Board of Education, Government of India, Delhi.

- (b) a memorandum on the Language of Science Subjects by Mr. G. R. Paranjpe, M.Sc., A.I.I.Sc. (Royal Institute of Science, Bombay);
- (c) a memorandum by Vidwan G. J. Somayaji, M.A., L.T., Andhra University.

6. All the Members of the Committee took part in the discussions which centred round the difficulties felt at present by pupils, teachers, publishers and examiners and the various methods for bringing about efficiency in teaching and uniformity in scientific terminology within each language and as between South Indian languages as a whole.

7. The Committee noted with gratification the proposal now before the Central Advisory Board of Education for introducing uniform scientific terminology for the whole of India to the extent it may be possible. If such an All-India terminology comes to be adopted, it would affect only the second class of words recommended by this Committee and it may be possible after a time to revise our lists so as to bring them into line with the rest of India.

8. The Committee also resolved to direct the attention of the various special committees to the developments in this direction in Travancore and Cochin for Malayalam, in Mysore for Kannada and in Hyderabad for Urdu.

9. The Committee resolved to submit to Government the following general principles on which a uniform system of standardised technical and scientific terms can be introduced in the South Indian languages:—

(i) The equivalents of foreign technical terms in the South Indian languages now in use in the lower secondary classes have mostly established themselves and are acceptable for educational purposes. Other terms which are current in the South Indian languages may also be adopted, such as the names of concrete natural (physical) objects or phenomena, like lightning, thunder, echo, earthquake, metal, limb, mule. This group of words may be peculiar to each of the South Indian languages.

(ii) It is necessary to draw up a standardised list of technical terms, common to all South Indian languages, for conceptual or abstract names and ideas, as for example, qualities, properties, names of subjects of study; force, centre, volume, nutrition, action, reaction, sensation, latitude, longitude, equinox, surface, liquid, solid, gaseous, rotation, algebra and geometry. These names may be based on Sanskrit elements for Dravidian languages and on Persian and Arabic for Urdu. This group will necessarily be small.

(Our colleague, Mr. Pisharodi is of opinion that for the first few years at least the practice may be adopted of enclosing within brackets the English equivalents of the technical terms under this category).

(iii) The remaining technical terms, not included in the two previous groups, will be bodily taken from English and transliterated into the South Indian scripts, accompanied wherever necessary by the original words in English script enclosed within brackets;

Provided however that candidates at examinations will be permitted to use, at their option, either the original forms in English or the transliterated forms or both.

(iv) In Mathematical and scientific books, Arabic numerals and the signs and symbols in use in English books are to be retained.

10. The Committee recommends to Government that a special committee be appointed for each one of the South Indian languages with power to co-opt members for different subjects to prepare lists of technical terms in each language in the light of the above principles. The Special Committee may in the first instance consist of five persons one of whom at least may be chosen from this Committee. Another Special Committee consisting of chosen members from each of the language committees may be appointed to frame the common lists referred to in resolutions (ii) and (iii) above.

11. When the various lists have been submitted by these Special Committees this Committee may be re-summoned for examining how far its recommendations have been followed and for making such revision of the terms as it may consider necessary.

12. When the lists have been finally adopted by this Committee it would be necessary for Government by order to prescribe them for use by the writers and the publishers of recognised text-books, by teachers in recognised schools and by examiners at public examinations.

13. While the use of the lists as finally passed by this Committee and approved by Government should be enforced by order of Government, the lists should be subject to revision and modification at stated periods, say five years, and by properly constituted authorities. This would enable a uniform and acceptable terminology to evolve in due course and at the same time would free pupils, teachers, authors and examiners from the distractions of rival systems.

14. The Committee is of opinion that instruction in English shorthand and English type-writing can only be given through the English language.

(Sd.) V. S. SRINIVASA SASTRI,
Chairman,
Technical Terms Committee.

ANNEXURE III.

NOTE BY PANDIT AMARANATHA JHA, VICE-CHANCELLOR, ALLAHABAD UNIVERSITY.

Scientific Terminology in the Indian Languages.

The first attempt at organised work on Science in an Indian language was made in 1888 by Prof. T. K. Gajjar. The Baroda Darbar made for this purpose a grant of Rs. 50,000. In his report for 1891-92, while explaining why only 5 books had been prepared, professor Gajjar said:

“The reason why but few books were received at the end of the academic year seems to be the want of suitable words—the difficulty of coining appropriate technical terms..... The transference of European knowledge to this country involves the search and creation of adequate words to signify all kinds of European ideas”.

Then the Bangiya Sahitya Parishad did some useful work. The Nagari Pracharini Sabha of Benares next undertook to prepare a glossary. They kept before themselves the following principles:

1. Preference should be given to the common and current Hindi terms.

2. In the absence of appropriate Hindi equivalents:

(a) Certain appropriate terms existing in some of the prevalent vernaculars—Marathi, Gujarati, Bengali, and Urdu—should be used.

(b) Failing these

(i) The existing Sanskrit terms should be taken.

(ii) The English terms should be used.

(iii) Terms should be coined from Sanskrit.

This work, comprising 360 pages, was published in 1906, with the title “Hindi Scientific Glossary”, and included separate chapters dealing with Geography, Astronomy, Political Economy, Chemistry, Mathematics, Physics, and Philosophy.

A revised and enlarged edition of this was published by the Sabha during the years 1929—34. The Glossary on Physics was revised by Dr. N. K. Sethi, D.Sc., and covers 116 pages. That on Chemistry was edited by Prof. P. S. Varma and in 82 pages. The Mathematics Glossary was edited by Prof. S. D. Pande and extends to 138 pages. That on Astronomy has 35 pages. One on Electricity has 60 pages. These five subjects have thus been carefully dealt with in 431 pages.

In 1932 Mr. Daya Shankar Dubey of the Economics Department of the Allahabad University brought out a Glossary of Economic Terms, covering 148 pages and one of Political Terms, covering 174 pages.

The Vijnan Parishad of Allahabad has since 1915 been publishing a Scientific Journal every month in Hindi and has brought out a valuable collection of scientific terms.

There is next, the “Twentieth-Century English-Hindi Dictionary”, compiled by Mr. Sukhsampathirai Bhandari, and published by the Dictionary Publishing House, Ajmer. It contains terms of “Commerce,

Economics, Politics, Medicine, Anatomy, Physiology, Surgery, Midwifery Science, Astronomy, Mathematics, Botany, and Zoology". It devotes to Commerce and Economics 120 pages; to Politics 102 pages; to Medicine, Anatomy, Surgery and Physiology 294 pages; to Physics and Chemistry 216 pages; to Astronomy 17 pages; to Mathematics 14 pages; to Botany 14 pages; to Zoology 13 pages and to Law 72 pages—a big work altogether comprising 862 pages.

So far as I am aware this is the work achieved so far in Hindi on this subject.

In Bengali, the Calcutta University has published glossaries in Physics, Mathematics, Geography, Biology, Chemistry, and Health and Hygiene.

I am not aware of what has been done in Marathi and Gujrati, and the languages of South India. But, as may be expected, there is much similarity between the Bengali and Hindi Terms, and presumably these will also be easily comprehended by those who speak Marathi and Gujrati. Here are a few identical terms, selected at random from the glossaries of the Nagari Pracharini Sabha and of the Calcutta University:—

Abbreviation	Sankshepa
Addition	Yog
Angle	Kon
At par	Sam mulya
Complex	Mishra

In Urdu also much work has been done. In 1915, the Rifah-i-Am Press of Lahore brought out, on behalf of the Anjuman Taraqqi-i-Urdu, a book on Physical Geography, with an eight-page glossary of technical terms; in 1916, a Geological Glossary, also of 8 pages. The main achievement has been that of the Osmania University. It has brought out Urdu books on Practical Anatomy, Mensuration, Chemistry, Sound, Astronomy, Mechanics, Sketching and Mapdrawing, Logic, and numerous other subjects. It has for the most part drawn on Arabic for coining new terms. Here are a few examples:

Dislocation	انفکاک
Natural Phenomena	آیات طبعی
Eruption	التهاب
Jointed	ذی مفصل
Soil	تراش
Mixture	اختلاط
Hollow	مخروط
Curve	منحنی
Function	تفاعل
Discovery	اكتشاف
Diagram	اسلہ
Corresponding	متناظر
Protection	تأین
Joint Cost	مصروف مشترک
Gold Standard	معیار طلا

The Hindustani Committee, appointed by the Bihar Government, has, during the last month, sent round glossaries of Geographical, Geometrical, Algebraical, and Arithmetical Terms. They have attempted to discover or invent words which can be used both in Hindi and Urdu. Their endeavours are praiseworthy, although some of the terms recommended cannot possibly find favour with scholars (*e.g.* 'Horizon' is explained as 'Nazargher'; 'Local Time' as 'muqami waqt') and although Sanskrit and Persian words seem to have been used now here and now there to produce an impression of unity (*e.g.*, 'Figure' as 'shaql'; 'Diagram' as 'chitra'; 'Constant' as 'atal'; 'Inference' as 'natija'); and although, in the really crucial instances, they are forced to fall back on separate Sanskrit and Arabic words (*e.g.*, "alternando" is translated by 'Ekntaranupat' and 'Ekantarnisbat'; 'Quantity' by 'Rashi' and 'Miqdar'; 'Fraction' as 'bhinna' and 'kasar'; 'Fourth proportional' as 'chautha samanupat' and 'tanasub'; 'Relative' as 'Sapaksha' and 'Izafi'; 'Magnitude' as 'pariman' and 'miqdar'; 'projection' as 'pras' and 'ta'abir',

The Oxford University Press published in 1939, "A List of Technical Terms" in English, Urdu, Marathi, and Hindi. It covers more than 200 pages, and is in many ways illuminating. Here are some words; the Bengali equivalents are taken from the Calcutta University Glossary:—

English.	Urdu.	Hindi.	Marathi.	Bengali.
Algebra	Jabromuqabla.	Beejganit.	Beejganit.	Beejganit.
Antecedent	Muqaddam.	Purvapada.	Purvapada.	Purvapada.
Cube	Maka'ab.	Ghan.	Ghan.	Ghan.
Formula	Zabta.	Sutra.	Sutra.	Sutra.
Transposition	Tanqeel.	Pakshantara.	Pakshantara.	Pakshantara.
Arithmetic	Ilmulhisab.	Ankaganita.	Ankaganita.	Ankaganita.
Consequent	Tali nisbat.	Uttarapada.	Uttarapada.	Uttarapada.
Dividend	Maqsoom.	Bhajya.	Bhajya.	Bhajya.
Magnitude	Miqdar.	Pariman.	Pariman.	Pariman.
Negative	Munfi.	Rin.	Rin.	Rin.
Odd number	Tqadad.	Visham sankhya	Visham sankhya.	Visham sankhya.
Recurring	Kasar asharya.	Avartha.	Avartha.	Avartha.
Atmosphere	Kurra-e-bad.	Vayumandal.	Vayumandal.	Vayumandal.
Catract	Jandal.	Jalprapat.	Jalprapat.	Jalprapat.
Anarchy	Adam hukumat.	Arajakta.	Arajakta.	Arajakta.

English.	Urdu.	Hindi.	Marathi.	Bengali.
Chancellor of the Exchequer	Diwan-i-Khalsa.	Koshadipati.	Koshadipati.	Koshadipati.
Epoch	Zamana.	Yug.	Yug.	Yug.
Amalgam	Malgham.	Paradmishran.	Paradmish- rao.	Paradmish- ran.
Analysis	Tashrih.	Vishleshana.	Vishleshana.	Vishleshana.
Test Tube	Imtihaninali.	Parikshana- nalika.	Parikshana- nalika.	Parikshana- nala.
Assumption	Farziya.	Pramaya.	Pramaya.	Pramaya.

Thousands of other instances can be mentioned where the Hindi, Marathi, and Bengali terms are identical. I do not know if in Gujrati also they would not be acceptable. Urdu has gone to Arabic or Persian sources and the Urdu terms would not be understood in the areas where Hindi, Bengali, Marathi or Gujrati is spoken and written.

The principles on which the different institutions have worked in preparing their terms are as follows:—

1. *The Bihar Hindustani Committee*—

- (a) Scientific terms should be, as far as possible, drawn from current Indian sources, commonly understood, and not directly from Sanskrit, Arabic, or Persian, or any other language.
- (b) Failing, terms usually employed in scientific terminology in the West should be adapted to our requirements.
- (c) The two above methods failing, words from Sanskrit, Arabic or Persian may be used with equivalents (as now used in Urdu or Persian) printed in brackets, so that the learner may become familiar with both sets of terms.

2. *The Vijnan Parishad, Allahabad*—

- (a) To find out such Hindi words as can correctly express the meaning of the European terms.
- (b) Failing them, to find out such European technical terms as are already used in factories and technical institutions and firms, possibly in a modified and corrupt form.
- (c) Failing these, to coin new terms derived from Sanskrit, but effort should be made to prevent these becoming difficult.
- (d) If none but exceedingly difficult Sanskritic terms are available, European terms should be adopted.

3. *The Anjuman-e-Taraqqi-e-Urdu, Aurangabad (in Dr. Abdul Haque's Preface to Farhang Istilahat-i-Ilmia)*—

- (a) Terms may be borrowed from all those languages which have contributed to Urdu, viz., Arabic, Persian, Hindi, and Turkish.
- (b) When terms are borrowed from other languages they should conform to the laws of Urdu.
- (c) As far as practicable short rather than long terms should be preferred.
- (d) Such English terms as are already in use should be retained.

While scientific terms derived from Sanskrit will be intelligible to a very large proportion of Indians, it cannot be overlooked that an important section of the population will be more at home with words of Arabic or Persian origin. The attempt to compel either section to adopt one set of terms based either on Sanskrit on the one hand or on Arabic-Persian on the other will arouse bitter controversies. It is not possible that in all sciences all the terms can be derived from these sources. The attempt to confine newly-coined terms to Sanskrit or to Arabic will cause communal discord. English terms are now in use in India and will continue to be understood and used by all engaged on advanced scientific work. The adoption of these terms will prevent waste of energy and time in the attempt to invent their Indian equivalents. These English terms are practically the same in every European language and a knowledge of these enables one to follow the scientific books and journals published abroad.

For all these reasons, it is advisable to adopt English terminology in all scientific writings in all Indian languages.

ANNEXURE IV.

NOTE BY DR. ABDUL HAQUE, SECRETARY, ANJUMAN-E-TRAQQI-E-URDU (HIND).

The subject covered by the Agenda is dealt with here in three sections. Section (I) will specify my general attitude towards the question of scientific terminology for India. Section (II) will give a brief account of the experiments carried on till now to prepare a code of terminology, and to impart education with its aid. The last section will sum up my observations on the work so far done in this direction, and advance my views in respect of what might be done in the future.

SECTION I.

Item 1 of the Agenda requires the members of the Committee "to consider whether a common scientific terminology should be fixed for India *as a whole*, and, if so, whether the main and common part of such terminology should be borrowed extensively from the English terminology".

A common terminology for a sub-continent like India as a whole is possible only when it is superimposed by a powerful central authority, *i.e.*, the English or Indian. But the march of events points to no such possibility. The British Government have made it clear that India is soon to attain Dominion Status and that its administration will have to be run by her own sons in future. The possibility of any superimposition on the part of the British being thus eliminated, the question remains whether such an imposition from within is possible. This is certainly possible if one of the two major communities of India should dominate the administration at the centre, and in the constituent units of India, so that a language favoured by the dominant party might be chosen to form the basis for a common terminology. To every sensible observer of the prevailing situation in the land, it should be clear that an agreed constitution giving the dominant voice to one party will never be set up.

Such being the difficulties lying in the path of superimposition of a common terminology, whether foreign or Indian, for the whole of India, the question arises what is the alternative which might be followed so as to keep in check endless multiplication of terminologies. The aim before us, then, should be to see that we evolve terminologies such as might be agreeable to the genius of as many Indian languages as possible. *This being so, the question which will call for consideration is this; can we for the purpose of common terminology resolve Indian languages into the minimum number of convenient groups?*

During the course of my close association with the All-India Anjuman-e-Taraqqi-e-Urdu for nearly thirty years, and no less close association with the Osmania University since its very inception—institutions which have devoted themselves to imparting modern knowledge in arts and science through an Indian language—I have had to give deep thought to the subject of common terminology. And my firm conviction is that India would need two sets of terminologies—one serving the interests of the Aryan group of languages including Urdu, and the other the Dravidian groups, the *international* terminology forming part of both. I cannot, therefore, agree with Mr. Seal that every Indian language should have a separate terminology, and that the main portion of it should be bodily imported from English. Nor can I agree with him in his classification of the Indian languages into *Sanskritic* (covering even the Dravidian languages) and *Perso-Arabic*.

So far as the Aryan group is concerned, the work done through Urdu may easily form the basis or groundwork for the building up of a code of terminology common to other languages of Aryan origin—languages spoken in the Hindustan proper as well as the languages outlying it, *viz.*, Bengali, Marathi, Gujrati, Sindhi, Punjabi, etc.

SECTION II.

To understand the value of the work done through Urdu and to see how it can be utilized for larger purposes, a brief account of it may be worthy of consideration.

Old Delhi College.

The earliest attempt ever made to supply scientific terminology in Urdu text books, was undertaken in the thirties of the past century by the old Delhi College, run by European Principals of whom Mr. Batrons and Dr. Springer deserve special mention.

The principles laid down by the Translation Society of the College for guidance in translation are set out here in the original:—

Proposed rules for the expression of English terms in Urdu translation.

1. Whenever a scientific word has no equivalent in Urdu and expresses a simple idea, as Sodium, Potassium, Chlorine, etc., there is apparently no objection to its being transferred bodily into the vernacular language. The same rule applies to titles, etc., not strictly corresponding to any other titles or dignities known in Indian History such as Bishop, Duke, Judge, Earl, Collector, Magistrate, etc.

2. If the scientific word expressing a simple idea has an equivalent in Urdu the latter must be used, as Loha for Iron; Gunduck for Sulphur; Wuzeer for Minister; Tulubnama for Summons.

3. If the word be a compound one, and the two original words be English and have neither of them equivalents in Urdu, the word must be transferred bodily into the Vernacular language as Hydrochloric for instance, the words Hydrogen and Chlorine having no equivalent in Urdu*. This should not however, be considered warranting the transfers of a whole English SENTENCE into a translation, as Justice of the Peace, which should perhaps rather be expressed by Justice peace ke—Military Order of the Bath, Lushkuree Jummat Bath Malta ke—Military and religious order of Malta, Lushkuree wo muzubee Jummat Malta ke.

4. If the word be a compound one and have no equivalent in Urdu, but be made from the words which singly have Urdu equivalents, the latter may be used in conjunction with each other, or some other equivalent translation made, as chronology, Ilmzemane—House of Lords, Cutchery Ameeran ke—House of Commons, Cutchery Waklaia raiake, or simply Cutchery Waklaia ke.

5. When this or the following cannot conveniently be adhered to, the foreign word should be transferred to Urdu as Hydrogen, Nitrogen.

6. If the compound word be formed from two single words one of which has an equivalent in Urdu and the other not, the Urdu compound one

* The nomenclature of Chemistry may perhaps be bodily transferred into Urdu. The Chemical elements which have Urdu names would retain them, but assume the English names in composition; as Hydro-Sulphuric, etc. The roots of that nomenclature not being numerous it would not be difficult to explain them clearly and distinctly.

must be made of the English and the Urdu single words, as Court of Directors, Cutchery Directoron ke-Archbishop, Bishopala.

7. Such words as Order, Class, Genus, and Species, although having in respect equivalents in Urdu might however, be transferred into that language, because the Urdu equivalents are synonyms of each other, and would constantly lead to a very objectionable confusion in distinctions highly important in the study of natural history.

8. The names of the natural families of plants* are derived each from one of the most remarkable individuals of the family or some of its common properties, and a similar rule may be followed in Urdu unless it should be found more convenient and advantageous that the distinctive names of each family should invariably be drawn from some of its special and distinctive characters.

1. The above rules might, it is hoped, prevent any great discrepancies in the translations. When speaking of a word having an equivalent in Urdu it is meant that some word similar to it in meaning is well-known among the middle and educated classes of the native community. If it were necessary for an equivalent to a scientific word not found in our Oriental Dictionaries, to refer to a learned Pundit or a Moulvee, it is obvious it would be better to adopt the English word, which, if equally unknown to the Urdu language, would have at least the advantage of being known to the translator, who might thus proceed in this translation without any Moulvee's or Pandit's assistance. As all, or nearly all, the science which is to be infused into Urdu must come from the English language, it is next to impossible, even if it were desirable, to prevent the introduction of many English words into it.

2. In the above, of course, are meant such words as are names of things and express simple ideas, or words formed from them, and not such derivative substantives and adjectives as are daily made from each other according to the well-known Arabic Forms.

3. On the whole English words must not be used in Hindustani translations when this can be avoided without any inconvenience, and any person who intends to translate a work on any given science should, as much as possible, provide himself with any work which may have been already published on that science, and made use of the same words in his translation which were used in that which preceded it, unless there be in any particular instance some material objection to this. Whenever an English sentence assumes as known a fact probably familiar to an Englishman, but unknown to a Native, some short explanation

* What has been said above of the nomenclature of Chemistry may apply to the great divisions of the Linnean system, but to make a complete proper Botanical language is perhaps the most difficult task to perform in the work of translation. A literal transfer of our European nomenclature and terminology into an Urdu translation would make of Botany a perfectly unintelligible chaos. The second mode alluded to in this paragraph indicating the names of the natural families of plants, appears the best as it is universally applicable, whereas the most remarkable individuals of a family in Europe are not always so in India. On the whole it is extremely desirable that some gentlemen having at least a general knowledge of Indian Botany well acquainted with Urdu should undertake the task. Some works on Anatomy and Physiology having some years ago been translated into Urdu, the difficulty relative to the technical terms of sciences must have been already overcome in some way or the other, but how this has been done has not as yet been ascertained by the Secretary.

of the fact alluded to should be given by the translator, either in a note or in the text of the translation if this can conveniently be done.

4. In general the translator must not endeavour to translate literally word for word. It is the spirit, the meaning of every sentence which it is important to transfer from one language to the other, however different the construction, or expression, of the sentence may be.

Keeping the above rules in view, the Delhi College was responsible for the compilation and the translation of about two hundred books dealing with Mathematics, Astronomy, Chemistry, Physics, Medicine, Natural History, Jurisprudence, Economics, Logic, Philosophy, Political and Constitutional History and several other subjects. The English educational authorities and scholars who paid visits to the College in those days highly appreciated this system of teaching sciences in particular through a vernacular and were pleased to record that the students of the Delhi College were as proficient as, if not more, than those who learnt those Sciences through the English language in other Colleges.

After the great disturbance of 1857, Delhi was annexed to the Punjab Province. No greater punishment could have been inflicted on that ancient city or harder blow dealt to it than the closing down of that noble institution which had created an intellectual and cultural atmosphere of a type new to India and produced some of our best minds and makers of Urdu in the last century, as for instance Master Ram Chandra, Nazir Ahmed, Mohammad Husain Azad, Zakaullah and others. Had this College been spared and allowed to continue its work of intellectual regeneration, it would have, assuredly, revolutionised educational thought in the country and anticipated by at least three quarters of a century the establishment of Universities like the Osmania conducting education through the medium of Indian languages. It is an irony of fate that no historian—neither a Britisher whose forefathers were responsible for its foundation, nor any son of the soil, who would have been proud of it—has ever had the kindness to refer to it in his work.

Osmania University.

The next attempt—this time more serious and determined—was the establishment of a Bureau of Translation in Hyderabad, preparatory to the inauguration of a full-fledged statutory University to impart learning in all its branches through the most widely spoken language of Urdu.

The work of the University and its results have been under the public eye for nearly a quarter of a century—as admitted on all hands, the system is now no longer regarded as an experiment. Indeed it has already powerfully influenced the working of other Universities in the land; so much so that strong hopes are entertained everywhere that, sooner or later, they will all fall in line with the Osmania University and provide education to Indian children through Indian languages. A careful study of the system of terminology followed by such a University catering for students speaking different mother-tongues at home, is worth making. The principles of this system may be stated as follows:—

1. In order that a proper code of scientific terms be prepared, it is essential that collaboration should be arranged between experts in languages and experts in sciences, the object being that on the one hand the connotation of the original may be fully brought out in the translation and on the other the resultant term should be expressive of the genius of the language.

2. The primary principle which should be kept in view is this; the term should be a word or part of a word for Hindi, Persian or Arabic, such as is either in common use or is easily comprehensible and possessing adaptibility for grammatical manipulation in Urdu. This condition being satisfied, perfect freedom is to be allowed for interchange of suffixes and prefixes from any of the three languages and combination of two or more words from the different languages taken together.
3. Terms from English which have become part of the language by usage should be retained. In addition, terms from a European language, for which an equivalent cannot be devised so as to bring out the full significance of the original, should be bodily transplanted.
4. Terms derived from foreign proper names should be so adopted as to retain on the one hand the proper name and on the other suit the structural and grammatical peculiarities of the language.
5. Old terms which are current and which can sustain the meaning in their modern application should be retained.
6. There are in current use certain scientific terms which originally bore one conception about which subsequent researches have come to convey a different conception. In translation of such terms the equivalent should follow not the literal sense of the terms but the present sense or significance of them, in spite of the fact that in the original language the same term is maintained.

Anjuman-e-Taraqqi-e-Urdu.

The work of terminology carried on by the Osmania University cannot be said to have reached any stage of finality. From the very nature of it, it will go on improving as time advances with its aim always concentrated on the need for greater simplification and greater expressiveness. In this task of simplification, it is my privilege as the life Secretary of the All-India Anjuman-e-Taraqqi-e-Urdu to submit that the Anjuman has unreservedly collaborated with the University at every stage. Not merely this, the Anjuman, in the interest of that wider public not directly accessible to the University, has so far compiled:—

- (a) nearly 175 works dealing with different branches of learning (published).
- (b) the Urdu translation of Oxford Concise English Dictionary (published),
- (c) nine volumes of terms technical to different professions and handicrafts,
- (d) glossary of terminology in Chemistry, Physics, Botany, Astronomy, Economics, Sociology, History and Political Science (some of these still in press).

In addition to the work of above character, the Anjuman conducts among other journals, the *Science* quarterly which aims to popularise sciences among the Urdu speaking public. I may add that in my individual capacity I am preparing a comprehensive Urdu Lexicon for the Osmania University, some volumes of which are now ready for the press.

These endeavours of the Anjuman have all been directed towards supplementing the efforts of the Osmania University in evolving a more and more simplified code of terminology.

SECTION III.

What is the net result? For aught I can say the Urdu language now possesses a code of terminology which with a little further simplification can easily be adopted by any of the Aryan languages which form the Indo-Aryan group mentioned above, whatever the receipt. If this were done, you would have provided for the major portion of India, nearly three-fourths a common terminology. As for the third, the Dravidian area, a common terminology can be evolved on parallel lines. It is only in this way that a right solution of the problem might be sought. If unfortunately the advocates of Hindi should insist on a Sanskritized variation of the terminology at present available in Urdu adopted for the Indo-Aryan group of languages, I shall certainly raise no objection. In that case there will be two terminologies for the area where the Indo-Aryan languages are spoken and one for the Dravidian. In all three sets.

I am, therefore, of clear opinion that the proposal made by Mr. Seal to have a common terminology for the whole of India composed extensively or mainly of borrowings bodily imported from the English terminology is neither desirable nor possible. No civilized country anxious for progress has a foreign terminology slavishly incorporated into its language. Take the case of Europe. In spite of the fact that the European countries have so much in common culturally, every country has its own scientific terminology. There is no doubt that a minimum quantity of international terms has been accepted by each language as an indispensable common factor and to that extent I should be agreeable to a similar latitude for Indian languages. But the wholesale importation will be demoralising, indeed it will disfigure the languages and crush their genius. Further, the Indian languages are so constituted that if the English terminology is imported even for the sake of sheer fancy, this will not feel quite at home when derivatives have to be employed. I give below a passage which observes the lines suggested by Mr. Seal:

تھر موڑ نامکس کے پہلے قانون سے یہاں مطلب ہے کہ جب کسی کیجیک ری ایکشن سے جسکی کیلوری ٹک ویلیو U ہے ایکسٹرنل ورک کے یوٹس حاصل ہوتے ہیں اور حرارت کے Q یوٹس کی ایکسپیشن ہوتی ہے تو

$$\begin{aligned} U &= A - Q \\ Q &= A - U \end{aligned} \quad \text{یا}$$

تھر موڑ نامکس کے دوسرے قانون کے یہاں معنی ہیں کہ جب کسی ایٹسو تھر مل ریڈر میل عمل میں ایمولوٹ ٹمپریچر T پر Q حرارت سے ایگری کی dA مقدار حاصل ہوتی ہے تو

$$\begin{aligned} dA &= Q \times \frac{dT}{T} \\ Q &= T \times \frac{dA}{dT} \end{aligned} \quad \text{یا}$$

ان دونوں ایکوئزن کو ملاکر Q نکال لینے سے گفتار ہلپولٹز کی ایکویشن حاصل ہوتی ہے —

$$A - U = T \times \frac{dA}{dT}$$

What is this stuff? Is it an expression of any recognisable language? Is the genius of Urdu visible anywhere in it? Let the contents of the

above passage be similarly expressed in any other Indian language and it will not be difficult to see that the result will be equally interesting.

To sum up, taking everything into consideration my humble suggestion is that instead of frittering away energy in an idle pursuit to evolve a common terminology for the whole of India whether based on English terminology or not, the sensible procedure will be to attempt two sets of terminology—one common to the Indo-Aryan group of languages, the other to the Dravidian on the lines indicated above.

ANNEXURE V.

NOTE BY DR. MOZAFFARUDDIN QURAIISHI, PROFESSOR AND HEAD OF THE DEPARTMENT OF CHEMISTRY, OSMANIA UNIVERSITY.

The question of adopting English scientific terminology as a whole was considered in all its aspects by several committees of scientists and linguists when the work of imparting higher scientific education through the medium of an Indian language was taken up for the first time in the Osmania University. The worthy chairman of this meeting was himself responsible for initiating and guiding these discussions. After long deliberations and after weighing arguments on both sides, it was finally decided that a middle course would be the best to follow under the present circumstances. Scientific terminology admits of a fairly sharp division into two sections, international and national. The international section, covering nomenclature and notation includes the following:—

- (a) Names of chemical elements and compounds such as sodium, potassium, chlorine, aluminium, nickel, hafium, sodium chloride, calcium carbonate, etc.
- (b) Names of minerals such as calcide, dolomite, hæmitite, magnetite, bauxite, etc.
- (c) Symbols of elements and compounds, such as H, O, C, H₂O, NH₃, H₂SO₄, etc.
- (d) Names of units of measurement such as gram, centimetre, second, pound, foot, inch, dyne, erg., amp., volt, Watt, etc.
- (e) Names of units of matter and energy, such as molecule, atom, electron, neutron, proton, quantum, photon, etc.
- (f) Names of laws, theories, phenomena, effects, instruments, apparatus, machinery, etc., which are named after their discoverers or inventors, such as Boyle's law, Dhun's law, Tyndal effect, Zeeman effect, Raman effect, Bunsen burner, Solvay's process, Allenmore's cell, borrowed, etc.
- (g) Mathematical notation such as log, sine, cos, tan, dx, Ax.
- (h) Names of classes, orders, genera and species in biology such as Dicotyledon (two seed flower) Reptilia Annaceæ, Annelida, Anona, Pheritima, Squamosa, Posthuma.

This international section of terminology has been adopted by us in its English form with the following few exceptions:—

(1) Words already existing in the language such as 'loha', 'sona', 'chandi', 'neela thotha', 'Jauher', are also used along with their English equivalents, 'Iron', Gold, Silver, Copper sulphate and atom. It may be pointed out that in European languages, too, names of elements and

compounds peculiar to these languages find extensive use in scientific publication. Here are a few examples:—

English.	French.	German.
Nitrogen.	Azote.	Stickstoff.
Lead.	Plomb.	Blei.
Sulphur.	Soufre.	Schwefel.
Tungsten.	Tungstene.	Wolfram.
Formic acid.	Acide Formique.	Ameisensaure.
Tartaric acid.	Acide pyrotartarique.	Weinsaure.
Succinic acid.	Acide succinique.	Bernstainsaure.

(2) A part of the mathematical notation had to be translated in order to make it fit with the Urdu alphabet and Indian numerals. For instance ذرا is used for dx and وسف لا for Ax . Some abbreviations of Arabic origin have been retained and used in place of their modern international equivalents, as these terms were already in current use in the schools of this country before the advent of English. For instance جیب is used for the trigonometrical ratio 'sine', جم for 'Cos', مس for 'tan' and 'م' for 'Cotan'. It is well known that Arabs made Algebra an exact science and laid the foundation of analytical geometry and plane and spherical trigonometry. The word 'sine' is evidently derived from the latin translation (sinus) of the Arabic term جیب , meaning 'a bay or curve'.

This question has recently been reconsidered and it has been decided to recommend the adoption of the International system for Notation for Mathematics.

The other section of scientific terminology, the national section, includes the following:—

- (a) Names of concepts, qualities and properties, such as matter, energy, wave, force, weight, volume, velocity, valency, chemical reactivity, equilibrium, saturation, density, solubility, surface tension, viscosity, centre of gravity, lines of force, conductivity, refractivity, specific heat, specific gravity, spectrum.
- (b) Names of phenomena and processes and their adjectival and other derivatives, such as, chemical reaction, combustion, distillation, radiation, conduction, induction, dispersion, refraction, diffraction, polarisation, incubation, magnetisation, electrification, dissociation, association, magnetism, isomerism, polymerism, allotropy, electric discharge diffusion, solution, ionisation, parallax, projection, secretion, sterilisation, solution.

- (c) Names of instruments, apparatus, tools and machinery, such as, microscope, telescope, spectroscope, spectrograph, polarimeter, furnace, clock Rheostat, viscometer, manometer, test-tube, flask, crucible, refractometer, wheel, axle, lever, refrigerator, etc.
- (d) Names of mathematical figures—such as line, curve, triangle, rectangle, polygon, etc.

In this section of terminology, Urdu equivalents already existing in the language have been adopted, and where Urdu equivalents did not exist new equivalents have been coined. If Mr. Seal's suggestion for retaining most of these terms in their foreign form is followed, about 5,000 foreign words and their derivatives, at a rough estimate, will have to be imported, which is very much beyond the capacity of any Indian language to absorb and assimilate. I shall make my point clearer by taking two examples. If we adopt the word spectrum in its foreign form, we shall have to accept the following additional words in our language.

Spectra, Spectral, spectroscope, spectroscopy, Spectrometer, Spectrograph, Spectrography, Spectro-photo-meter, Spectrometry, Spectrophotometry.

If we adopt the word solution, we must also accept solutions, dissolve, solute, solvent, soluble, solubility, solvate, solvation. Such words, which denote concepts, properties and processes and their several derivatives are not uniform even in different European languages, which are closely related to one another, as the following few examples will show:—

English.	French.	German.
Density.	Desnite, epaisseur.	Dichte.
Weight.	Poids.	Gewicht.
Surface tension.	Tension superficielle.	Oberfläche spannmg.
Viscosity.	Viscosite.	Innere reibung or Zähigkeit.
Conductivity.	Conductivite.	Leitungsvermogen.
Radiation.	Radiation.	Strahlung.
Horse power.	Force de chevaux.	Pferdestarke.
Reflection.	Reflexion.	Zuruckwerfung.
Refraction.	Refraction.	Brechung.
Acceleration.	Acceleration.	Beschleunigung.
Specific gravity.	Gravite specifique.	Specifische Gewich.
Specific heat.	Chaleur specifique (or speciale).	Specifische Warme.

English.	French.	German.
Atomic weight.	Poids atomique.	Atomgewicht.
Equilibrium.	Equilibre.	Gleighbgewicht.
Equation.	Equation.	Gleichung.
Valency-	Valence.	Wertigkeit.
Solution.	Solution, solute (Pharm).	Losung.
Solvent.	Solvant.	Losungsmittel.
Soluble.	Soluble.	Loslich.
Solubility.	Solubilité.	Loslichkeit.

To sum up, the Osmania scientific terminology has two main divisions, namely, the International, which covers nomenclature and notation, and the National which covers names of concepts, properties, processes, instruments, mathematical figures, etc. The first part is, in the main, in English, while the second is, in the main, in Urdu. We have, therefore, already borrowed the essential international elements of scientific terminology from English, and the question of borrowing more does not arise in our case at least. If the other Indian languages follow the course adopted by us, the international section of terminology will be common to all the languages of the country. With regard to the national section, it is difficult to see how this could be achieved unless there is one common national language for the whole of India. But it is possible to minimise the differences by dividing the languages into two main groups, namely, Aryan and Dravidian, as suggested by Dr. Maulvi Abdul Haque, and having a common national section of terminology for each division. The national section of the Osmania terminology is devised in such a way that it contains words both of Perso-Arabic and Sanskrit origin, as dictated by the very nature of the Urdu language. It can, therefore, serve as a common terminology for the Aryan group of languages.

ITEM VII OF AGENDA.

APPENDIX III.

Report of the Social Service and Public Administration Committee of the Central Advisory Board of Education, 1940.

At the fifth annual meeting held in May 1940, the Central Advisory Board of Education considered a communication from Sir Francis Younghusband, Secretary of the Indian Village Welfare Association, Westminster, London, regarding the establishment of a centre or centres in India for study in social service and public administration. As the Board felt that this important problem required thorough investigation, they appointed a Committee to examine the various issues arising in connection with it and to submit a report. The following were appointed members of the Committee which was given power to co-opt:—

1. The Hon'ble Sir Maurice Gwyer, K.C.B., K.C.S.I., Chief Justice of India. *Chairman.*
2. Sir V. T. Krishnamachari, K.C.I.E., Dewan of Baroda.
3. The Right Rev. G. D. Barne, C.I.E., O.B.E., V.D., Bishop of Lahore.
4. Rajkumari Amrit Kaur.
5. Dr. R. C. Mazumdar, Ph.D., Vice-Chancellor, Dacca University.
6. Dr. A. F. Rahman, LL.D., B.A. (Oxon.), Member, Federal Public Service Commission.
7. Lala Shri Ram.
8. The Educational Commissioner with the Government of India.

2. In accordance with the powers conferred on the Committee, the following were co-opted as additional members:—

1. Dr. T. E. Gregory, D.Sc., Economic Adviser to the Government of India.
2. Dr. Clifford Manshardt, A.M., D.B., Ph.D., D.D., Director, The Sir Dorabji Tata Graduate School of Social Work, Byculla, Bombay.
3. Mr. R. P. Masani, M.A., J.P., Vice-Chancellor, Bombay University.

3. The Committee, as finally constituted, met in New Delhi on the 15th and 16th November 1940. Sir V. T. Krishnamachari, Rajkumari Amrit Kaur and Dr. Gregory were unable to attend the meeting. Dr. D. M. Sen, M.A., Ph.D., Secretary, Central Advisory Board of Education, was Secretary of the Committee.

4. The agenda and the connected papers circulated to the members are set out in the Annexure.

5. In opening the proceedings, the Chairman observed that the memorandum circulated with the agenda indicated most of the points which the Committee were called upon to consider. The first question they had to decide was whether the establishment of a centre or centres was desirable and if so whether it could be regarded as practicable within a reasonable

period. After that general point had been settled the Committee would proceed to define the functions of such a centre or centres, the scope of the subjects to be studied or investigations conducted and the necessary organisation which would be involved.

As a preliminary to their discussion, the Committee asked Dr. Manshardt as Director of The Sir Dorabji Tata Graduate School of Social Work, which is a pioneer institution in this sphere so far as India is concerned, to describe the work which was being done under his guidance. Dr. Manshardt explained in detail the organisation and activities of the Tata School.

6. The Committee felt that as they were required to consider the social services in their relation to public administration rather than public administration so far as it was concerned with social service, their investigation must embrace the activities of voluntary agencies as well as the work of public bodies and government departments. The means of correlation between these two might indeed form the primary subject for exploration and in this connection the experience of European countries and of America might be usefully studied. On the other hand a country so vast in extent as India, with such varying climatic and economic conditions and with so complicated a social structure must present problems which can only be tackled in the light of original research. The Committee, therefore, envisaged the need for a central institution at which the main issues arising in connection with social welfare in the widest sense might receive impartial and scientific examination. The principal function of such an institution would be to study social problems rather than to train social workers but emphasis was laid on the fact that if its researches were to be practical and its influence far-reaching it must be staffed by people with as wide an experience as possible of social service in a concrete form. It was to be expected that the staff and student of such a central institution would be drawn from workers in provincial centres, whether voluntary or professional, and would in due course return to practical work. It would thus be at one and the same time a clearing house of information and ideas, a research bureau, and a kind of staff college for senior social welfare officers. The Committee had before them the constitution and programme of the American Public Welfare Association and felt that these with such modifications as might be needed to meet Indian conditions might be a useful guide in determining the more detailed functions of the institution they have in mind. In order, however, that the institution might be at all times in close touch with practical problems and have some place where actual experiments could be carried out it would be extremely desirable that there should be closely associated with it, if not under the same direction, a training school for social workers. Possibly the social welfare centre which a place of the size and importance of Delhi might be expected to support would serve this object.

7. The Committee recognised that a central institution of the kind outlined above could only be justified if its work were supplemented by and closely linked with that of provincial social service centres directly in contact with local problems. The Committee were glad to note that in addition to the Tata School there are a number of voluntary agencies already engaged in this field, such as the Institute of Rural Reconstruction at Santiniketan, the Co-operative Institute at Gosaba as well as the social service centres run by the Ramkrishna Mission and numerous other

missionary agencies. In addition to voluntary effort, Governments, whether Central, Provincial or State, are devoting increasing attention to the social services and this tendency may be expected to develop rapidly in the near future. There is therefore a promising nucleus of varied activities, the main need of which is consistent stimulus and effective organisation. To provide this a number of provincial centres are required, whose principal object would be to correlate the activities of all social service agencies in their areas. The proposed central institution in its turn would act as a focus for the provincial centres.

8. The Committee do not wish to do more than indicate in the broadest outline the function which in their opinion these provincial centres should fulfil. In order to ensure effective correlation it is important that their management should represent as fully as possible the various organisations at work in the area. In addition to this it will be their business to conduct propaganda and to train or arrange for the training of social service workers. The field to be covered is so large that it is unlikely that any one provincial centre will possess the necessary facilities for training workers in all branches of social welfare. Full use must therefore be made for training purposes of other suitable centres in the area. Similarly in the case of the workers themselves the call for service is so great that there is no possibility of satisfying it solely by means of full-time professionals. A nucleus of these will be essential in every area and their selection and training will be matters of the first importance but they will have to be reinforced by a much larger army of part-time and voluntary workers. The provision of courses for them will be an essential feature of any successful provincial organisation. In particular the Committee felt that it would be extremely desirable that departments of Government which deal with the social services should take steps to see that their officers receive similar training either during their period of probation or subsequently. Teachers and Health officers in particular should be made aware of the wider aspects of a movement with which their own activities are intimately connected. It is an obvious truism that progress in social welfare must very largely depend on a sympathetic attitude on the part of those occupying positions of administrative responsibility.

9. The Committee also considered what direct contribution Universities might be expected to make in this sphere. While they did not regard as practicable the suggestion recently put forward that some personal participation in social service should be made a condition of the award of a degree, they felt that Universities might render help of considerable value both by enlarging the scope of their extra-mural departments and by encouraging students to regard social service as the discharge of an obligation towards the less fortunate sections of the community. The Committee recognised the part played by Universities in the Literacy Movement and were glad to learn that some Universities were already actively interesting themselves in the establishment of University settlements and other forms of social work.

10. In considering the general lines which training for social service should follow the Committee had in mind the fact that the problems of social work in rural areas are distinct from those in cities and that in planning courses a different method of approach would be required in each case. Apart from the need to establish training centres in rural areas as well as towns it is not less essential to ensure that the students in the former are people with a real knowledge of and interest in rural life.

11. The Committee next considered the nature of the machinery which would be required to give effect to the ideas set out in the foregoing paragraphs.

As has already been indicated, they envisaged the need of an All-India body with a central institution under its control at which the main problems could be studied. In addition to research it would be the business of the central body and the central institution to establish and maintain contact with provincial centres which would in turn stimulate and co-ordinate social service activities in their own areas. The Committee felt it was outside their terms of reference to consider in any detail what form or forms of organisation should be adopted so far as provincial or other local areas are concerned. No useful purpose would in any case be served by attempting to prescribe a uniform system. Provided that overlapping and waste of effort are avoided, this is a subject above all others where local conditions must be taken into account and freedom to experiment encouraged.

12. The central body, which might be called the All-India Council of Social Service, and would, as its name indicates, be representative of the whole country, should not in the Committee's opinion be under the direct control of Government. Since, however, it is not reasonable to anticipate that funds sufficient to make it self-supporting will be forthcoming from private benefactions, as in the case of the Association of Public Welfare Administration endowed by the Rockefeller Foundation, and that consequently it will have to depend at any rate in its early stages largely on assistance from Government funds, some public representation will be necessary.

Without wishing to define too rigidly the composition of the Central Council the Committee felt that it should contain a Chairman and 6 members (of whom at least 2 should be women) nominated by Government, one representative of each Province and 2 representatives of Universities nominated by the Inter-University Board. Provision might be made for the representation of those Indian States which are actively interested in this subject through the Government nominees. This would mean a council of about 20 and it was thought that provided the members were persons of influence, carefully selected for their interest in and practical experience of social problems, it should be large enough for its purpose.

13. The Central Research Institute, which would be managed by the Central Council and should be located in Delhi, should have three main departments devoted to the study of Economic, Public Health and Education problems respectively.

In view of the character of the work which it will undertake and in the interests of economy the staff of the Institute need not be a large one. Quality rather than quantity should be the determining factor. The Committee were in agreement that in order to preserve the vitality of the Institute, the Director and Heads of Departments should not be encouraged to remain there indefinitely. Their appointments should be on contract for such a period, *e.g.*, five or seven years, as would enable them to make their influence felt throughout the country as well as to complete any important piece of research which they might be required to undertake. The Institute would also need a Registrar and a Statistician: these might be permanent appointments. The Registrar would act as Secretary to the Council.

14. In conclusion the Committee have felt it desirable to put forward some estimate of the cost of their proposals together with suggestions as to the source or sources from which it might be met. As the success of the scheme will depend to a very great extent on the personality and ability of the Director of the proposed Central Research Institute the Committee consider it necessary to offer a salary that will attract the best men available. As the appointment is to be for a period of 5-7 years and will not be pensionable, the Committee are of opinion that the salary should not be less than Rs. 1,500 per mensem.

It should be possible to obtain men of the requisite calibre as Heads of the three proposed departments for Rs. 500-700 each per mensem and Rs. 750 per mensem should cover the combined salaries of the Registrar and Statistician. Generous allowance should also be made for stipends in the case of research workers of outstanding ability who would otherwise be able to support themselves at the Institute. The Committee do not consider that in the beginning at any rate it would be necessary to incur any serious non-recurring expenditure in connection with this scheme as it should be possible to hire accommodation in Delhi that would house adequately an Institution of the modest size contemplated. When the rent of premises and normal maintenance charges, including clerical staff, are added to the salaries suggested above it would appear that between Rs. 75,000 and Rs. 1 lakh would be needed to meet the annual recurring cost.

The Committee hope that if the scheme succeeds and by its success attracts increased attention to the importance of social welfare work in the interest of the community at large, it will in due course receive a growing measure of financial support both from public bodies and from private benefactors. They also take it for granted that the proposed All-India Council of Social Service and the staff of the Institute will make every effort to build up an endowment fund which will ultimately place the Institute on a self-supporting basis. At the start however they realise that the bulk if not the whole of the expenditure involved will have to be met from public funds and they regard the contribution which this project might make to the general well-being of India as so great that they have no hesitation in recommending the Central Government to accept the whole responsibility for an initial period of 5 years.

MAIN CONCLUSIONS AND RECOMMENDATIONS.

I. (a) That there should be established in India, preferably at Delhi, a centre in which an impartial and thorough examination of the problems connected with the Social Services and Public Administration in its relation to the Social Services, could be carried out.

(b) That for this purpose a central body, to be called the All-India Council of Social Service, should be set up with an Institute for research under its control.

(c) In order that the institution might be at all times in close touch with practical problems and have some place where actual experiments could be carried out it would be extremely desirable that there should be closely associated with it, if not under the same direction, a training school for social workers.

II. That in each province and other large administrative area there should be at least one centre affiliated with the All-India Council the main object of which would be to stimulate and co-ordinate the work of social service agencies, voluntary and official, in the area and to arrange for the training of social workers of all grades.

III. That training in social work should be given to the officials of public departments concerned with the social services as well as to the workers of voluntary bodies.

IV. That every University in India should have a department for extramural work in charge of an officer who has had a thorough training in Social Service.

V. That as most of the India's population is in the rural areas, corresponding importance should be attached to training for service in rural areas persons with a real knowledge of and interest in country life.

VI. That the composition of the proposed All-India Council of Social Service and the staff of the proposed Central Institute and their remuneration should be as set out in paragraphs 11—14 of the report.

VII. That the annual recurring cost of the Central Institute estimated at between Rs. 75,000 and Rs. 1,00,000 should be borne by the Government of India for an initial period of 5 years.

VIII. That every effort should be made to build up an endowment fund which would make the Central Institute self-supporting within a reasonable period.

(Sd.) MAURICE GWYER (CHAIRMAN).

G. D. BARNE.

R. C. MAZUMDAR.

A. F. RAHMAN.

SHRI RAM.

JOHN SARGENT.

CLIFFORD MANSHARDT.*

R. P. MASANI.

* Subject to note of dissent.

NOTE OF DISSENT BY DR. CLIFFORD MANSARDT.

I approve of the report except for the first paragraph in Section 13 on page 4. It is quite right that the Committee decided that the Research Institute should have three main departments devoted to the study of Economic, Public Health and Educational problems respectively. I personally, however, do not feel that this division represents in an adequate manner the functions of a Social Research Institute. I feel that the Institute could more profitably devote its attention to:—

- (a) A study of the problems connected with Family and Child Welfare.
- (b) Economic problems: industrial and Agricultural.
- (c) Social Pathology—problems arising out of maladjustments between the individual and the social structure, which covers the range of problems such as poverty, unemployment, ill-health, mental deficiency, crime, problems arising out of physical defects, etc.

ANNEXURE.

(a) AGENDA FOR THE MEETING OF THE COMMITTEE APPOINTED BY THE CENTRAL ADVISORY BOARD OF EDUCATION TO EXAMINE THE QUESTION OF ESTABLISHING A CENTRE IN INDIA FOR THE STUDY OF SOCIAL SERVICE AND PUBLIC ADMINISTRATION IN THIS COUNTRY.

1. To consider whether a centre or centres should be established in India in which an impartial and thorough examination of the problems concerned with the social services and public administration in this country could be carried out and by means of which courses of training could be arranged for those engaged or about to be engaged in this work.

2. To consider the desirability of restricting the number of centres to be established and of concentrating attention in the first instance on a single centre which might be established in Delhi.

3. To consider the constitution of the actual organising agency and to what extent it should be representative of the Governments or universities concerned and of appropriate private associations.

4. To consider the question of the incidence of the cost of the scheme, *i.e.*, whether the Government of India and the provinces, which are likely to benefit, should bear in due proportion the cost involved.

5. To consider any other matter connected with the subject that may be brought before the meeting.

(b) MEMORANDUM PLACED BEFORE THE CENTRAL ADVISORY BOARD OF EDUCATION IN INDIA AT ITS MEETING HELD IN MAY 1940, REGARDING THE ESTABLISHMENT OF A CENTRE FOR STUDY IN SOCIAL SERVICE AND PUBLIC ADMINISTRATION.

In February 1937, Sir Francis Younghusband, Chairman of the Indian Village Welfare Association, Westminster, forwarded, on behalf of his Association, a draft scheme for the establishment of a centre in India for study in social service and public administration and requested the Government of India—

(a) to place the scheme before the Central Advisory Board of Education in India; and

(b) if the Board commends the scheme, to assist in carrying out the project.

A copy of his letter together with the draft scheme is appended for the information of the Board. The main proposals are:—

(i) That a centre or centres should be established in India in which an impartial and thorough examination of the problems concerned with the social services could be carried out and by means of which courses of training could be arranged for those engaged, or about to be engaged, in this work in its many aspects;

(ii) That though the centres might be under the ægis of a university or universities, the actual organising agency should be representative of the Government, of the university or universities concerned, and of appropriate private associations;

(iii) That there should not be more than 3 social service centres and in the first instance attention should be concentrated on a single centre which might be established in Delhi; and

- (iv) That the Government of India and the Provinces, which are likely to benefit, should bear in due proportion the cost of the scheme.

2. The Adult Education Committee of the Central Advisory Board of Education, which met in July 1939, also suggested that social science should be taught in all universities and that it should be treated from the practical point of view and not academically; for instance, no student should be eligible for a degree or diploma unless he had satisfactorily completed an allotted task as a social worker.

3. Training in social service and public administration for those who wish to qualify themselves for the nation-building tasks is undoubtedly not only desirable but also essential. At present, there is no centre in India where such a training is imparted.

4. The matter is placed before the Central Advisory Board of Education for their consideration.

COPY OF A LETTER, DATED THE 17TH FEBRUARY, 1937, FROM THE CHAIRMAN OF THE INDIAN VILLAGE WELFARE ASSOCIATION, WESTMINSTER, TO THE SECRETARY TO THE GOVERNMENT OF INDIA, DEPARTMENT OF EDUCATION, HEALTH AND LANDS.

I am hopeful that the activities of the Indian Village Welfare Association, of which I have had the privilege of being Chairman since the date of its inception in 1931, have already been brought to the notice of the Government of India.

The objects of the Association are briefly—

- (a) the collection and dissemination of information regarding rural activities in India;
- (b) the furtherance of schemes and experiments for the promotion of rural welfare; and
- (c) the holding of schools and other educational activities for arousing interest in the needs of rural India.

2. I would draw attention to certain measures which the Association, in spite of its limited resources, has attempted to carry out by disseminating valuable information and by its educational activities.

In the former direction, I would refer to the leaflets which have been broadcasted in India on the subject of Child marriage; and, in particular, to a small pamphlet "Rural Welfare in India", by Mr. C. P. Strickland, which has been widely distributed in India and other countries. I have reason to hope that these and other publications of the Association have proved of value to the progress of rural reform.

In the latter direction, I would refer to the Eastern School, which is organised every year by the Association, and is attended by I. C. S. probationers and by others engaged in, or intending to engage in, rural work in India. The Association has been successful in enlisting the co-operation of men admirably qualified to afford stimulating advice, based upon long experience, to those who may be expected to take a leading part in rural activities in the future.

3. I hasten to add that, in these and other activities, the Association has worked in the closest co-operation with successive Secretaries of State and High Commissioners for India, and I gladly take this opportunity of

recording the gratitude of myself and of the Association for the sympathy and help which have been given ungrudgingly from these quarters.

4 During the last year, many members of the Association and others interested in our work from varying aspects, discussed with me informally and from time to time the possible extension of these activities and, in particular, whether something on the lines which we have been attempting in England could not be developed in India.

I therefore invited members of the Association, together with others connected with similar Associations, to attend a meeting held at the Caxton Hall on October 15th, 1936, with Sir George Anderson in the Chair. A wide and influential response was given to my invitation; and the discussion at the meeting indicated a very widespread appreciation of the urgent need for promoting wider and more practical facilities for study and training in the problems of public administration in India, especially in relation to the social services.

5. General unanimity having thus been established, it was decided that a representation should be sent to the Government of India on the subject, in which the general principles of this development should be defined. It was also felt that, though it might be inadvisable to go into detail and to recommend a definite scheme, it was none the less advisable to provide a clear indication of what was in the minds of those attending the meeting if only as a suggestion of the kind of work which might be attempted. A Committee was therefore appointed to prepare an outline of a scheme in accordance with the general sense of the meeting. I myself attended the final meeting of this Committee, as also did Mr. F. W. H. Smith of the India Office.

6. The report of the Committee was presented to a further general meeting, which I summoned on February 9th, 1937.

7. A unanimous desire of the meeting was expressed that I should address the Government of India in the terms of this letter, and that I should make the request that this important matter should be placed before the Central Advisory Board of Education. Such procedure appeared to the meeting to be appropriate in that, it is understood, the Board includes representatives not only of provincial governments but also of Indian universities and of the Central Legislature.

8. I myself concur wholeheartedly with the opinions strongly expressed at both meetings that, especially in view of the new Constitution which is shortly to be put into operation in India and of the increasing and welcome importance now attached to the task of rural reform and to social problems, a Centre or Centres should be established in India, in which an impartial and thorough examination of problems concerned with the social services could be carried out and by means of which courses of training could be arranged for those engaged, or about to be engaged, in this work in its many aspects.

9. Our discussions and deliberations have been much facilitated by the presence and co-operation of Mr. C. M. Lloyd and Miss Eckhard of the London School of Economics and Sociology. We realise that what has been accomplished so successfully by this institution in the United Kingdom may not be altogether suited to Indian conditions; at the same time it is felt widely here that something on similar lines and in a manner suited to the requirements of India is an urgent and imperative need.

Considerable hesitation was, however, expressed at both meetings in recommending the institution of a university department for the purpose. Fear was entertained that, in this event, the study and training would be of too academic a nature and that the interest of universities might tend to flag, especially as both meetings were strongly of opinion that, though in some cases diplomas might be awarded, such examination or tests as might be held should not form part of the normal university courses for a degree.

It was therefore decided to recommend that, though the proposed functions might conveniently be carried out under the ægis of a university or universities, the actual organising agency should be representative of Government, of the university or universities concerned, and of appropriate private associations.

10. A further fear was expressed in this connection that, even if the above recommendation were found to be appropriate, it might impose an additional, though indirect, burden on the responsibilities and resources of universities, and thus there might be a danger of extravagant and unfortunate duplication of effort. My Association and I therefore feel that there should not be more than perhaps three Social Service Centres; and that, indeed, it may be advisable at the outset to concentrate attention on a single such Centre.

The opinion was therefore expressed that Delhi would be the most appropriate Centre, and that participation by the University of Delhi would form a most suitable contribution to be made by that University in the direction of specialised study and research. The additional advantage would be that (it is understood) accommodation might be available either on the old Viceregal estate or in its close vicinity. Delhi is also fortunate in the number of social workers and of men and women, official and non-official, who possess ample experience of the problems of public administration and social service, and whose participation in the work of the proposed Centre would be of the utmost value.

11. Further details of the proposed Centre were discussed both by the general meetings and by the Committee referred to above. It was felt that such details could be defined far more appropriately in India, and especially, it is hoped, by the Central Advisory Board of Education. On the other hand, the opinion was expressed that the results of our deliberations might be of some value in India; they are therefore forwarded in the form of a memorandum attached to this letter.

12. It is but natural that the function of financing the project came under our consideration. It has been difficult to prepare even rough estimates either of revenue or expenditure but I have been requested to express the hope that the Government of India and at least those provincial governments likely to benefit by the acceptance of this proposal will find it possible to assist materially in subsidising a scheme which, in my opinion, will prove of great value to the welfare of India.

I am the more inclined to believe that this recommendation will be found possible by the fact that generous provision has been made by the Government of India in the current year's budget and in that of the preceding year towards the task of rural development. I have been requested by the Indian Village Welfare Association and by those associated with the present proposals to express our heartfelt appreciation of this outward and visible sign of the importance attached by the Government of India to the cause which my Association is striving to assist. I would suggest,

in conclusion, that this generous provision would be even more fruitful of beneficial results, if there were at hand a body of workers, official and non-official, who had received the incentive of experienced training, and were supported by collections and compilations of books and works of reference dealing with the several spheres of activity.

We would be glad to examine this scheme further in any direction you may desire or to answer any question.

INDIAN VILLAGE WELFARE ASSOCIATION.

Draft Proposals for the establishment of a Centre for study in Social Service and Public Administration.

The need and importance of promoting a scientific and impartial study of public administration in India, especially in relation to the social services, has in recent years become increasingly evident. The necessity of training those who are taking, or intend to take, part in these activities is also abundantly clear to all who study the efforts now being made by official and unofficial agencies in the direction of social improvement. Many of those actually engaged in this work possess an imperfect knowledge of the theory and practice that should guide their service; and branches of activity, which are or should be interdependent, often show a distressing lack of co-ordination. The theory and practice of local administration, which is so closely connected with the social services, itself also requires careful examination. The present position in India in this respect is scarcely satisfactory. Local administrators, being often limited in their outlook and experience, not infrequently suffer from a confusion of thought, and tend to take action which may be inimical to progress. The degree of control and co-ordination, which is required by the modern idea of ministerial responsibility, is imperfectly realized in India, and the beneficent results, which should flow from a well ordered administration of the social services by local bodies, are thereby jeopardized.

The Indian Village Welfare Association has for some years interested itself in this question, and has conducted an annual Easter School in England for I. C. S. probationers and other persons who contemplate or are actually engaged in social service work in India. The success of this School has been encouraging and suggests that courses of similar study and training in India, wider in scope and certainly more practical in their nature than is possible for students of Indian conditions in England, are an urgent and imperative need.

The time is opportune for instituting such courses in India, for a new field of national service will be opened to all Indian citizens under the new system of government. Sir Francis Younghusband, Chairman of the Indian Village Welfare Association, therefore called together a group of individuals, some of whom have experience at first hand of official or unofficial work in India, while others have been concerned in the training of adult students for social service in England. The proposals contained in this memorandum are the outcome of the deliberations of this group.

A. The course should aim at providing facilities for the study of the
 I. The content of the social services in India in particular and of other countries in a general manner; of the conduct of public administration (including local administration) in the field of the social services; and of the methods of expanding and improving these services.

Further, (1) both rural and urban social services should be included in the course;

(2) on the other hand, general administration (law, revenue, etc.) should be excluded;

(3) the approach to this course of study and training should be practical as well as theoretical. Intimate contact with the actual conditions of Indian life, rural and urban, is imperative.

B. The data and information on which the studies should be based are at present inadequate. The material which exists is not always convenient in form or entirely unbiased. It will be desirable, when the courses have been established, but not as an indispensable preliminary, to arrange that local surveys be conducted by experts. In such surveys university students might take part under guidance, but the close supervision of an expert is always essential.

We have been informed that Professor Mahalanobis, Secretary of the Indian Statistical Institute, would be prepared to render expert guidance on the matter of surveys, on the basis of the experience which he has already gained.

A library containing the most appropriate literature of India and other countries should be liberally equipped, and should include suitable books and other compilations, dealing with the social services.

The most convenient language for the courses will be English, but the possibility of short courses in the vernacular should also be considered.

We consider that the participants should be:—(a) Social workers, men or women, who desire training for a career of social service or of public administration;

(b) officials (approved by their governments), and non-officials who do not contemplate a full career of social service but who might usefully undergo a period of training either for their own benefit or for that of their employees;

Governments themselves may find it advisable that officers of appropriate departments should attend a course during their period of probation or a few years later;

(c) the general public.

The length of the course that we envisage for the first category might be one year. For the second category the duration would vary from one month to three months or more, as experience might prove desirable. The manner of providing for the general public cannot at present be foreseen; short courses or single lectures would no doubt be attractive.

Women should be admitted equally with men to all the courses.

Although it is hoped that undergraduates of the universities would benefit indirectly from the scheme, the training of undergraduates as such does not fall within the scope of these proposals.

The award of a Diploma may be useful in the case of the first category of participants, but any examination or test which may be imposed should, in our opinion, not form part of any university course for a degree.

Fees should be charged for attendance at all courses.

We consider that (a) though the official and departmental courses, which are at present held in several provinces, are not without profit to those who are instructed in them, their scope and method are not such as to meet the requirements of our scheme, and cannot be so widened as to meet them;

(b) though certain Indian universities have made experiments in the proposed direction, a course conducted entirely by a university tends to be insufficiently practical. It is also conceivable that the interest of a university might flag if, as we recommend, the social service course be not an integral part of university work for a degree;

(c) though such unofficial bodies as the Y. M. C. A. and other societies, whether Indian or non-Indian, including missionary societies have made a valuable contribution towards the desired object, their approach and treatment are of too limited a nature for our purpose.

We consider that social service training of the proposed type is a matter with which governments in India are immediately concerned. Moreover, financial assistance from governments will be required. Though, therefore, the conduct of the courses may conveniently be carried on under the ægis of a university or universities, the actual organising and controlling agency should stand on a broader basis, and might consist of a Committee or Council representative of the governments and universities of the area which the School should serve, together with a substantial un-official representation in order that the spirit of the controlling body should be neither excessively official nor unduly academic.

It is not possible to foresee how many Schools of Social Service and Public Administration will eventually suffice for the needs of India. If the scheme became "provincial", and many universities in India sought forthwith to embark upon such a course, there might be a dangerous duplication of effort, and in consequence a lowering of standards. Our suggestion consequently is that a single School be started experimentally in one centre; and without in any way prejudging the future development of the scheme, we recommend that Delhi be selected in the first place. Generous assistance from the Government of India will be necessary, and it may be hoped that funds will be forthcoming in the same manner as those recently granted for rural reconstruction, or that a portion of these grants may be allotted for our purpose. The Government of India will itself be able to watch and to assist the experiment at Delhi; accommodation for a hostel and lecture-rooms is likely to be available, and there are already at hand, both within and outside the University of Delhi, a number of men and women of experience, whose participation in the work of the proposed Centre would be of great value.

An experienced Director of Studies as Principal of the School will be indispensable. We cannot foresee whether the right individual will be found in India, either within the "beneficent departments" or among academic or social workers, or whether he should be engaged from overseas, where considerable experience of work of this nature has already been gained. In either case we urge that adequate emoluments be granted and we consider that his conditions of service should not be inferior to those of the head of an important College. The Director should be provided with a Librarian and clerical establishment; a building for the residence and teaching of those who take part in the courses will be required; and in addition to the direct instruction to be given by the Principal himself—a

IV. Staff.

sufficient portion of his time must be reserved for his directorial duties—temporary lecturers who will give courses of lectures on technical branches of social work and administration should be seconded from Government service or engaged on suitable terms, wherever they may be found. Funds should be provided to meet the expenses of both official and unofficial lecturers, and to supply suitable honoraria where necessary.

The participants will accompany the Principal or the technical lecturers on visits to places of interest and relevance in connection with their studies, and will pursue their investigations on the spot. We attach the highest importance to this part of our proposals.

Presenting, as we do, only the outline of a scheme, we do not feel it incumbent upon us, nor would it be possible, to estimate the exact cost of our proposals. We have referred to two sources of income, *viz.*, the fees of participants in the courses, and grants from the Government of India. The latter should, if the experiment is to be fully tested, be continued for not less than three years. It appears reasonable that, if the first School be founded in Delhi, grants should be made by the governments of the provinces neighbouring to that centre. Grants might also be expected from the universities in these provinces. In this connection we suggest that if the grants of the provincial governments are made wholly or in part through the Rural Development Board or similar body which is engaged in the promotion of rural welfare in each province, a valuable link will be forged, and the practical studies of those who take part in the course will be facilitated.

In conclusion, we beg the Government of India—

- (1) to place our memorandum before the Central Advisory Education Board, in order to obtain their opinion; and
- (2) if the Board commends our proposals, to assist in carrying out this project, which we believe to be of the highest importance to India under her reformed constitution.

(c) EXTRACT FROM PARA. 10 OF THE PROCEEDINGS OF THE FIFTH MEETING OF THE CENTRAL ADVISORY BOARD OF EDUCATION.

In 1937, Sir Francis Younghusband, Chairman of the Indian Village Welfare Association, Westminster, forwarded, on behalf of his Association, a draft scheme for the establishment of a centre in India for study in social service and public administration and requested the Government of India:—

- (a) to place the scheme before the Central Advisory Board of Education in India; and
- (b) if the Board commends the scheme, to assist in carrying out the project.

The main proposals are:

- (i) That a centre or centres should be established in India in which an impartial and thorough examination of the problem concerned with the social services could be carried out and by means of which courses of training could be arranged for those engaged, or about to be engaged, in this work in its many aspects;
- (ii) That though the centres might be under the ægis of a university or universities, the actual organising agency should be repre-

sentative of the Government, of the university or universities concerned and of appropriate private associations;

- (iii) That there should not be more than 3 social service centres and in the first instance attention should be concentrated on a single centre which might be established in Delhi; and
- (iv) That the Government of India and the Provinces, which are likely to benefit, should bear, in due proportion the cost of the scheme.

After careful consideration the Board decided that a committee consisting of the following members, with powers to co-opt, be appointed to examine the issues arising from the proposed scheme and report to the Board:—

1. The Hon'ble Sir Maurice Gwyer, K.C.B., K.C.S.I., Chief Justice of India. *Chairman.*
2. Sir V. T. Krishnamachari, K.C.I.E., Dewan of Baroda.
3. The Right Revd. G. D. Barne, C.I.E., O.B.E., V.D., Bishop of Lahore.
4. Rajkumari Amrit Kaur.
5. Dr. R. C. Mazumdar, Ph.D., Vice-Chancellor, Dacca University.
6. Dr. A. F. Rahman, LL.D., B.A. (Oxon.), Member, Federal Public Service Commission.
7. Lala Shri Ram.
8. The Educational Commissioner with the Government of India.

(d) NOTE BY MR. S. D. MATHUR, EXECUTIVE OFFICER, MUNICIPAL BOARD, AGRA.

The utility of a centre for the introduction of practical education as against the present day academical education cannot be questioned. The absence of such an institution in India is largely responsible for the turn-out of incapable and unpractical staff in various departments of administration. The University education is limited mostly to the theoretical courses. The practical side is totally neglected. The result is that people have to go to foreign countries for training in practical side of education. Foreign education has, no doubt, its own value and no educated Indian will grudge the acquisition of foreign education by his country-men where they take advantage of a broader out-look and return with advanced views. But it is not within the province of the majority of my country-men to take that step.

It cannot be denied that want of practical education has been one of the causes of the failure of services in India on a large scale. The Universities turn out inefficient material. The products of these Universities are physically and mentally bankrupt to take up responsible jobs in the practical field of day-to-day administration and to adopt themselves to changing circumstances. A student of politics knows well what was done by great men in the past but, so far as future is concerned, he is not well equipped to meet the contingencies. As a rule, men come out from the Universities without their own initiative and originality. As an instance, a graduate in Commerce is well conversant with figure work, but when he is placed in a bank to post up registers, he simply looks blank. This is the condition in every branch of administration.

A centre for the study of social service and public administration will serve as a panacea for the present day inefficient and corrupt services in local and provincial Governments. Such a centre is necessary not only for public administration but for every branch of life. The present day graduates are strangers to the dignity of labour. They are a burden to their society and take little interest in social matters. They hardly mix with less educated members of their community and become an eye-sore to their families. This is the result of the existing dry education of our Indian Universities. The standard of living has been raised but the education has deplorably failed to create in them a feeling of self-dependence—they lack in the feeling of earning their bread and butter by their own labour.

Local Self-Government is the first step of local administration but this department forms a subject of adverse criticism on public platforms. The country has not yet been able to derive full benefits of the system of Local Self-Government and the very object of the introduction of this boon has been defeated. It is due only to want of men well equipped to handle successfully the intricate problems that present themselves for solution. Qualified men, with all-round practical knowledge in Local Self-Government, are more needed in this branch of public administration than in any one else. Mal-administration in local bodies and cases of embezzlement, etc., are so common. When a centre is established, and well trained men are available for service, their very presence will change the out-look of these local bodies and wipe out their bad name.

It was with a view to impart practical education in all branches of social service and public administration that the Oxford University took up the initiative to establish regular courses for study. My programme is based on the same lines with modifications to adjust our needs.

These courses, as proposed, should be a post-graduate study, attached to the graduates of all branches in order to make them practical men to grapple successfully in the struggle for existence.

PROGRAMME.

It is necessary to establish two post-graduate courses, to be attached to each University. If it is not possible to include these courses in the Curricula of all Universities, a Centre for this training is highly necessary at some central place without any further delay. One course will be for two years and the other for one year.

A.—TWO YEAR COURSE. (DIPLOMA).

Compulsory subjects.

1. Social and Economic History of India and other countries.
2. The Constitutional History of England and other countries including India and Modern Political Organisation.

(Modern Political Organisation will include some study of the structure of government, central, local and international with special reference to the institutions of Great Britain.)

3. Theory of State.

(This subject will include a study of the relations between the State, the individual, and the voluntary group.)

4. Public and Social Administration.

[The study of the working and interrelation of administrative bodies, both statutory and non-statutory like Public Health, Education, Order and Public Assistance (and Unemployment) including trade-union and other working-class organisation.]

Optional subjects to be selected for specialisation (only one).

1. Public Finance.
2. Local Government since 1760.
3. International organization and administration.
4. Statistical Method.
5. Social and Industrial Psychology.
6. Currency and Credit.
7. Labour Movements since 1815.
8. Recent Developments in the machinery of administration.
9. Administrative Law.
10. Co-operation.
11. Rural Reconstruction.
12. Probation.
13. Jails.
14. Insurance, etc.

The candidates will have to submit a Thesis and to undergo practical training for 3 months in subjects in which specialisation is needed or to take a 6 months' practical training as a whole.

B.—ONE YEAR COURSE (CERTIFICATE).

Compulsory subjects.

2 and 4 of the "A" course.

Optional subjects (only one to be selected).

The same as in "A" course.

The candidates will be required either to submit a Thesis or to undergo training for 3 months.

In addition to these courses, lectures will be arranged to be delivered by eminent educationalists and men working or having intimate knowledge of the following subjects:—

1. Public Health.
2. Public Assistance and Unemployment.
3. Trade Unions (in relation to Trade Boards, the Industrial Court, Adult Education).
4. The Co-operative Movement (*cf.* the Agricultural Marketing Acts).
5. Friendly Societies in relation to Social Insurance (*cf.* Employers' Association).
6. Relation of statutory to voluntary work.
7. Individualisation, *e.g.*,
 - (a) Mental Health and Mental Deficiency work;
 - (b) Child Guidance Clinics, etc., and Delinquency;
 - (c) Unemployment and "Maladjustment"; Residual Problems.

C.—CERTIFICATE OF TRAINING FOR SOCIAL WORK.

This course will consist of (1) three Terms' work at the Centre under supervisors approved by the Committee for social studies: and (2) either (a) a period of supervised practical work in connection with some approved organisation or organisations for social or industrial work, or (b) an inquiry into some problems of rural or urban conditions of administration in a selected district with a report thereon.

(e) AN ANSWER TO THE QUESTION "SHOULD SOME FORM OF SOCIAL SERVICE BE MADE COMPULSORY FOR ALL STUDENTS AT SOME STAGE OF THEIR SCHOOL OR UNIVERSITY COURSE?"

The following scheme is put forward on behalf of the Indian Public Schools Conference.

To prevent this note becoming too long, the reasons for some of the proposals are either omitted or only hinted at. The authors are prepared of course to give their reasons at length later on, if required.

The scheme is as follows:—

1. A period of three months continuous compulsory social service should be required of every undergraduate in India.

2. No undergraduate should be allowed to take his degree without a certificate that he has satisfactorily performed this service for this period.

3. It will help this scheme if all B.A. and other degree courses extend over at least three years; if Matric courses are lengthened by one year; if Intermediate courses are abolished; and if undergraduates are not admitted to degree courses before their 17th birthday.

4. The social service should be performed in 'winter camps' situated at convenient places in each University area. It is not at all necessary for the same places to be selected every year. Therefore the accommodation provided should be cheap and temporary, (*e.g.*, tents or huts) and the life in them should be organized much as it is in a University Training Corps.

5. These camps should be opened annually for three months during the period November to March when the weather is cool.

6. Undergraduates should normally attend during their first academic year; but those taking a course lasting more than three years may more conveniently be sent to camp in a later year. Those prevented by unavoidable causes from attending in the year in which they were due to attend must attend in the next year.

7. It is thought to be possible for undergraduates who have attended a winter camp to make up some of the lectures which they have missed by decreasing the length of the summer vacation which precedes or follows their winter camp. Be that practicable or not, the authors consider that it ought to be possible to help on every undergraduate with part of his studies in the camps themselves by means of evening lectures.

8. The camps should be staffed by:—

(a) Government or State officials of the various nation-building departments who should plan direct and supervise all the manual work done. They will be paid by Governments or States as usual. No special allowances are needed for them.

(b) College teachers, who will be drawing their usual College salaries while in camp. We feel it to be not too much to call on Colleges to spare some teachers for these camps as each College will also be sending many undergraduates. They should assist in maintaining discipline and in the camp routine organization and recreation and should help in all field work which can be correlated with University studies. They may be able also to give some evening lectures in the camps.

(One member of the Conference has also suggested obtaining the services of some one very well qualified to act as camp commandant with his own Staff. There are several ideas about the selection of this important person. One is that he should be an Army officer with a few N. C. O.'s, seconded for three months. If he were, all undergraduates who belonged to the University Training Corps might do some of their annual training in the camp. Another is that he should be a well known social worker or doctor who brought with him some voluntary workers to help. It seems very desirable that those people who act as camp commandants are normally employed as such year after year.

Enough first class people might be found (only one for each camp) who were willing to come for nothing or with free board and lodging only in order to perform an important piece of social service. If however they had to be paid, the cost should fall on both the Government or State and the University in the area of which the camp was situated in some agreed proportion.)

9. Undergraduates should be transported to and from the camp and fed and lodged in it without cost to them but should receive no pay.

These charges and all charges connected with the running of the camp should be borne in full by the Government or State in the area of which the camp is situated. As against this the Government or State would be getting some free labour for three months.

The camps should be run very simply and great efforts should be made to avoid having to employ a single paid servant.

10. The work done in a camp should be of three kinds—

- (a) camp duties of all kinds;
- (b) coolie work;
- (c) field work which, while sometimes involving manual work, should also demand skill and which should so far as possible be correlated with some University study.

Work (a) may have to be done by each undergraduate, for, say, one week during which he will do nothing else.

Examples:—

cooking, cleaning, sanitation.

Work (b) should normally be done by everyone not employed on work (a) for half of each working day. Raw undergraduates would not have the strength to do work of this kind for

longer hours. It would be chosen and supervised by Government officials. Examples:—anti-erosion work, digging of canals, deepening of tanks, road building.

Work (c) should occupy the other half of each working day. Undergraduates should as far as possible be employed on work related to their studies, *e.g.*—

Medical students—village clinics,

Agricultural students—agriculture and afforestation,

Economics students—village surveys,

B.T. students—village schools,

Geography students—map making and local geography and so on.

But there would be some students who could not be fitted in so easily. They would have to take on literacy, sanitation and other campaigns in nearby villages and to lecture villagers at bazars and elsewhere. The probability of finding sufficient work of type (c) should be an important consideration when choosing the site of a camp. If the commandant of a camp were an army officer, University training corps parades might count as work of type (c). Also an advanced course of first aid or life-saving. A good deal more thought is required about work of type (c).

11. An undergraduate considered unfit by the camp doctor for work of type (b) should be kept fully employed on work of types (a) and (c).

12. This scheme has been framed for male undergraduates only. But there seem to be no insuperable reasons against holding camps for women students also and many in favour of them. Of course they would differ in many details but the main objects to be secured in both camps would be same. These are:—

(a) to kill the present aversion to manual work by urbanized students;

(b) to foster a spirit of self-help;

(c) to develop physical fitness and endurance through manual work;

(d) to interest students in rural life by bringing them into touch with it;

(e) to show many of them the practical value of their academic studies;

(f) to get useful work done in the countryside;

(g) to advertise and help on the work of rural reconstruction;

(h) to produce a new generation of adults who will do more even than this for village life.

APPENDIX IV.

COPY OF LETTER DATED THE 28TH DECEMBER 1940, FROM DR. CLIFFORD MANSARDT, DIRECTOR, THE SIR DORABJI TATA GRADUATE SCHOOL OF SOCIAL WORK, BOMBAY, TO THE EDUCATIONAL COMMISSIONER WITH THE GOVERNMENT OF INDIA.

I am in receipt of the Draft Report of the Social Service and Public Administration Committee of the Central Advisory Board of Education. The principal recommendations of the Committee are:—

- (1) That a centre for social research should be established, preferably in Delhi.
- (2) That the centre should have closely associated with it, if not under the same direction, a training school for social workers.
- (3) That the research institute should be under the direction of an All-India Committee of about 20 members.
- (4) That Government should be asked to bear the recurring cost of the Institute, which would come to about Rs. 75,000—Rs. 1,00,000 annually.
- (5) That there should be provincial training schools working in close co-operation with the central institution.

I have discussed the matter with the Trustees of the Sir Dorabji Tata Graduate School of Social Work and it is our opinion that the Tata School is in a position to co-operate advantageously in this general scheme.

Our position is somewhat as follows:—

- (1) The Tata School has already passed through the throes of organization, is established and has All-India and International connections. The proposed scheme could therefore be put into immediate operation.
- (2) All members of the Tata School Faculty are qualified research workers. By adding an industrial expert and an agricultural expert to the present staff, the School could carry out in a very adequate manner, both teaching and research.
- (3) The Tata School has already the nucleus of a most excellent social science library and new additions are being made constantly.
- (4) The Tata School is affiliated to an excellent functioning Social Settlement, while the city of Bombay offers opportunities unrivalled in India for practical work for students.
- (5) Under this Scheme of co-operation with the Tata School, the Government of India's contribution could be almost cut in half. The principal expense would be the salaries of the industrial and agricultural experts, mentioned in (2) above, and stipends for research students deputed to the School.

The contribution of Government would be between Rs. 25,000 and Rs. 50,000 rather than Rs. 75,000 to 1,00,000 mentioned in the Committee Report.

Our Trustees would be prepared to admit Government representatives to the Board of Trustees and to allow an Advisory Committee of 20 members as suggested by the Committee to advise regarding the research activities of the School.

This is a course a skeleton outline and detailed plans would have to be worked out, but I feel that our proposal should at least be communicated to the Central Advisory Board at its Madras meeting in January.

BUREAU OF EDUCATION, INDIA



Post-War Educational Development in India

**REPORT BY THE CENTRAL ADVISORY
BOARD OF EDUCATION**

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[The figures and estimates contained in this report refer, unless otherwise stated, to British India only.]

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S. C. Tripathi, Esq., M. A., I.E.S., Director of Public Instruction.

Punjab.

The Hon'ble Mian Abdul Haye, Minister for Education.
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Sind.

The Hon'ble Pir Illahi Bakhsb Nawazali, Minister for Education.
Shamsul-Ulema Dr. U. M. Daudpota, M.A., Ph. D., Director of Public Instruction.

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Dr. Panna Lall, C.S.I., C.I.E., D. Litt., I.C.S., Adviser to H. E. the Governor.
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INTRODUCTION

1. The White Paper containing proposals for the post-war expansion of the British system of Education, which was laid before Parliament not long ago, begins with these words :—

“ Upon the education of the people of this country the fate of this country depends.”

If the people of Great Britain, which even before the war was spending from public funds the equivalent of Rs. 33-2-0 per head of the population on education, need such an admonition, it would appear to be even more necessary in relation to India, where the comparable expenditure in 1938-39 was Rs. 0-8-9 per head.

In the expectation that sooner or later a serious attempt would have to be made to tackle the problem of providing India with a system of education approximating to those available in other countries, the Central Advisory Board of Education have devoted their attention in recent years to surveying the main fields of educational activity with a view to ascertaining what would be the minimum provision required. Since their reconstitution in 1935 they have set up Committees to study and report upon the following, among other, subjects :—

1. Basic Education (2 reports).
2. Adult Education.
3. The Physical Welfare of School-Children.
4. School Buildings.
5. Social Service.
6. The Recruitment, Training and Conditions of Service of Teachers in Primary, Middle and High Schools.
7. The Recruitment of Education Officers.
8. Technical (including Commercial and Art) Education.

At their last two meetings they have reviewed the recommendations of these Committees with special reference to post-war needs and to the possibility of post-war developments, and they are satisfied that, subject to such modifications as will be indicated in this report, they provide the foundations upon which an efficient system of public instruction, suited to the needs and circumstances of this country, can effectively be erected. The expenditure involved is admittedly heavy but the experience of war suggests that when a paramount necessity can be established, the money required to meet it can and will be found. It is for India to decide whether the time has arrived when a national system of education is a paramount necessity.

Since the primary object of this report is to place a practicable plan of post-war development before the Reconstruction Committee of the Viceroy's Executive Council, which will hardly have the time or the desire to concern itself with matters of educational method or technique, only such reference will be made to the contents of these reports as may be necessary to elucidate the general principles upon which the Board's present recommendations are based. For the sake, however, of those who will not be satisfied merely to inspect the general plan of the proposed structure but will also want to know in detail how it might be built and equipped throughout, it has been decided to reprint in a slightly abridged form the reports of the Committees referred to above. All that need be said here, therefore, is that while the Board have aimed at a standard comparable with those already attained in Great Britain and other western countries before the war, they have been careful not to adopt

western ideas or to copy western methods without being fully satisfied that they are those best suited to India. They also realise that conditions in different parts of India vary greatly and that consequently their aim should be to indicate the main lines which development should follow rather than to prescribe any uniform or detailed plan. It will be for the responsible educational authorities to devise for themselves within the general lines laid down the type of education most appropriate to their particular areas, and with this object in view, to give the fullest encouragement to every form of potentially useful experiment. While the aim throughout has been to devise a system which is essentially Indian, the Board at the same time believe that there are certain fundamental principles which must determine the training of the future citizen, wherever in the world he or she may happen to dwell, and they cannot conceive that any form of social or political community will ever prosper unless the importance of fostering in the rising generation such attributes as physical fitness, intelligence and integrity of character receives the fullest recognition. In particular they are anxious not to expose themselves to the criticism that they have ignored the moral or spiritual side of education ; they wish to state with all the emphasis in their power that at all stages of education the training of the intellect and the training of character must proceed side by side.

2. The Board anticipate that many aspects of the scheme set out in the following pages will excite public criticism. This they will certainly welcome, if its aim is constructive and it is with no desire to forestall it that they express the opinion that it will probably crystallise into one of two forms, either that the scheme costs too much or that it takes too long. In both cases it should be pointed out that the determining factor is the teacher, and particular attention is consequently invited to the standards adopted by the Board for the recruitment and training of teachers on the one hand and for their remuneration on the other. If the teachers of different grades are to be paid the salaries which the Board regard as the minimum likely to attract men and women of the right type and with adequate qualifications, the total cost of a national system cannot be materially reduced. On the other hand, if entrants to the profession are to possess the minimum qualifications and undergo the minimum training which the Board regard as essential, the additional recruits will only be forthcoming as new schools and colleges are brought into existence, since the present system is entirely incapable of supplying the number required. Progress cannot outstrip the supply of teachers, and the assumption in this report that about 35 per cent. of the output of the new High Schools will be attracted into the teaching profession may well turn out to be over-optimistic. The Board, therefore, see no prospect of shortening the period without lowering teaching standards, which they would most strongly deprecate or conscripting teachers, which they would only contemplate as a last resort.

3. It may also be advisable to clear the ground for an impartial consideration of the proposals in this report by attempting to anticipate other possible misconceptions. The first is that greater liberality on the part of Governments rather than any radical change in the method of approach is all that is needed. It is certainly not the Board's desire either to exaggerate existing defects or to overlook what has been achieved in the face of grave difficulties at certain times and places but in their considered opinion it is inconceivable that within a reasonable period a really national system could be developed or evolved from what now exists or by the methods hitherto followed. Apart from the extremely slow progress which had been made before the war, the present system does not provide the foundations on which an effective structure could be erected ; in fact much of the present rambling edifice will have to be scrapped in order that something better may be substituted. A

second possible misconception is that some half-way house of a less expensive type can be found between what now is and what this report advocates. The answer to this is that the minimum provision which could be accepted as constituting a national system postulates that all children must receive enough education to prepare them to earn a living as well as to fulfil themselves as individuals and discharge their duties as citizens. It also requires that those with the requisite capacity should be further trained to fill positions of responsibility in all walks of life. It has been suggested by some of those who shrink from the financial implications of going the whole way, that education might be limited to all the children in some places or some of the children everywhere or some of the children in some places only. Even if such a differentiation could be regarded as compatible with the claims of social justice, it is difficult to see how the selection involved could be fairly made. If there is to be anything like equality of opportunity, it is impossible to justify providing facilities for some of the nation's children and not for others. In the first place, therefore, a national system can hardly be other than universal. Secondly it must also be compulsory, if the grave wastage which exists today under a voluntary system is not to be perpetuated and even aggravated. And thirdly, if education is to be universal and compulsory, equity requires that it should be free and common-sense demands that it should last long enough to secure its fundamental objective.

A word of warning based on experience elsewhere is necessary against any proposal on economic grounds to apply compulsion only up to the end of the Junior Basic (Primary) stage in the first instance and then to extend it gradually upwards, as circumstances suggest or finances permit. It is true that this method has been followed in England and other countries but those who have had experience of it know how much inefficiency and waste it has entailed. It is significant that for this very reason Education Authorities in England are still wrestling over seventy years after the passing of the Education Act of 1870 with the task of reorganising the lower storeys of the educational structure. Furthermore, basic education from 6—14 is an organic whole and will lose much of its value, if not so treated; in any case an education, which lasts only five years and ends about the age of eleven, cannot be regarded as an adequate preparation either for life or livelihood. If, as would appear to be the case, a universal compulsory system of basic education can only be introduced by stages, the progression should clearly be from area to area and not from age to age.

4. Even though all the nation's children are brought to school, success will not be achieved unless the teaching is effective and efficient teachers will have to be properly paid. Attention is called to the fact that the recommendations as to teachers' salaries, which will be found set out in full in the appropriate chapters, were unanimously approved at a meeting at which every Provincial Government was represented. It should also be noted that they were fixed with reference to pre-war standards of living. Once teachers' salaries are settled, it is not difficult to fix a datum line of expenditure below which it can be shown that the requirements of a national system will never be satisfied. The object of this report is to fix that datum line, subject of course to the proviso that it will require modification in the light of the conditions obtaining in India in the years to come.

5. A reference may usefully be made here to the report on School Buildings, because very little will be found in this report about the vast programme of school construction which will be necessary, if a national system is to be brought into being within a period of 30 to 40 years. It is true that provision has been made in all the

estimates of recurring expenditure for interest and sinking fund charges on the assumption that non-recurring expenditure on school buildings will as a rule be met out of loans in future. Without a proper loan system any large building programme becomes almost impracticable. It is also worth recalling that the minimum standards to be observed in respect of the provision of sites, buildings, equipment etc. for schools of all types have been prescribed in detail in the report referred to and that due regard has been had to the possibility of taking advantage of climatic conditions, cheap methods of construction and other factors which may aid in reducing the cost. In connection with the provision of equipment, special emphasis may be laid on the importance of adequate libraries and of making the fullest possible use of what are commonly described as mechanical aids to learning, *e.g.* the cinema, the radio, the gramophone, the epidiastope, the magic lantern, etc.

6. Some apology or explanation may be required for the absence of much specific reference in this report to the question of education for girls and women. This is certainly not due to any failure to recognise the magnitude of this issue; in fact quite the opposite. The past tendency to treat girls' and women's education as a problem on its own—it still enjoys a chapter to itself in many Provincial education reports—has distracted attention from the fact that in any modern community it is even more important for the mothers to be educated than the fathers and that consequently all educational facilities *mutatis mutandis*—and the differences are by no means so fundamental as the old-fashioned imagine—should be equally available for both sexes. It is, therefore, assumed in the following pages that whatever is needed for boys and men, not less will be required for girls and women. This may even apply to Technical Education not many years hence.

7. For somewhat similar reasons little will be found here about those communal or caste divisions, which figure so prominently in the political and social life of India today. The extent to which they complicate and may continue to complicate even the solution of purely educational problems is fully realised but it is to be hoped that a national system of education, which deserves the name, will aim at satisfying impartially the needs of everybody. It is certainly intended that the educational provision contemplated in this report will cater equally for all, irrespective of the community or caste to which they may belong.

The question of religious education, however, falls into a different category. The importance which the Board attach at all stages of education to the training of character has already been stressed. There will probably be general agreement that religion in the widest sense should inspire all education and that a curriculum devoid of an ethical basis will prove barren in the end. The Board certainly envisage that private schools conducted by denominational and other bodies will have their appropriate place in a national system, provided that so far as secular instruction is concerned, they comply with the conditions and reach the standards prescribed in the case of State Schools. It will be for the responsible authorities to consider the more difficult question of the facilities which could or should be provided for those children in State Schools whose parents desire them to receive dogmatic religious education. At the same time the Board feel that it may be useful to lay down certain general principles for guidance as to the best way in which the whole question of religious education should be approached and they have accordingly appointed a special Committee for this purpose.

8. There is another matter which bulks very large in the minds of many educationists but will be found to have received very little attention in this report. This is the subject of Examinations. There are two reasons for this omission. In the

first place, the subject has been under consideration by a Committee of the Board, which has only just completed its investigation, and there has been no time for its recommendations to receive the attention they deserve from the authorities concerned. In the second place while a national system of education will no doubt still have to have examinations of some kind, it seems highly desirable to get the system started and then devise examinations to suit it. Otherwise the urge to draw up an examination syllabus first and fit the new system to it will be found irresistible by many.

9. The Board wish again to make it clear that their object in this report is to indicate in broad outline the minimum educational requirements of this country and to show how long it would take to satisfy them and roughly what it would cost. It is clearly beyond their power at this stage to prescribe the precise lines which future developments should follow, though they have endeavoured to lay down principles for general guidance. As has already been pointed out, it will be for the various authorities entrusted with the administration of education at its different stages to work out detailed schemes suited to the particular needs of the areas or institutions for which they are responsible.

The same caution must apply to the estimates of cost which will be found in the following pages. These are based partly on actual figures which the Board believe to be reliable and partly on certain assumptions which they regard as justifiable. They realise, however, that certain factors are likely to arise during the considerable period which is bound to elapse before the proposed scheme can be brought into full operation, which will necessarily affect, and may affect greatly, the calculations set out in this report. In the first place the estimates are based on pre-war standards. Any variations which may take place during the next generation in the general cost of living, and particularly in rates of remuneration or prices of materials, will necessarily have a corresponding effect on educational expenditure. Then again the present estimates are based on the latest available figures in regard to population. It is impossible to forecast at what rate the school population will increase in future. It is true that some provision has been made to meet this, inasmuch as the existing educational expenditure has been left out of account in estimating the cost of the national system proposed and has been deliberately kept as a reserve towards meeting the cost of further expansion due to increase in population. It may well prove inadequate for this purpose. Furthermore, if during the next thirty or forty years standards of living generally improve to the extent hoped, public opinion may demand and the State's resources may justify the provision of educational facilities on a more liberal scale than that outlined here. Doubts have already been expressed as to whether the proposed teachers' salaries, which largely determine the total cost, will in fact be adequate to attract recruits of the calibre and in the quantities required. These and other factors will modify the present estimates and they are likely to modify them in an upward direction. The Board's object throughout has not been to plan an ideal system of public instruction but rather to lay down the very minimum necessary to place India on an approximate level with other civilised communities. Even so the financial implications are formidable and whatever variations possible economies in details and a more accurate working out of local programmes may involve, it is unlikely that the picture as a whole will be materially changed. The need for a drastic reconsideration of the present method of paying for education and for a redistribution of the burden between the Central and Provincial Governments will surely remain.

Although the Board recognise that it may be outside their province to explore the financial issues they have raised and that in any case the claims of education

cannot be considered independently of those of other essential social services which are beyond their purview, they have not been able to avoid giving some consideration to the question of ways and means. They feel, however, that it would be well to defer any discussion of this issue until the concluding chapter of this report, by which time the nature of and the reasons for the developments they are advocating will, it is hoped, be more fully appreciated.

10. Unless they have signally failed to diagnose India's educational needs, the Board feel that given the will and the money, the stage is now set for a start to be made and no one need complain that he is held up by uncertainty as to what should be done or how it should be done. They recognise that much devoted service has been rendered to the cause of education both by bodies and by individuals, but in a country where apathy and inertia have reigned so long in the educational domain and where poverty has been the accepted excuse for leaving undone what ought to be done, a prodigious effort will be needed on the part of those responsible, both to set things going and to face the financial implications which such action will involve. Other countries, however, are already on the march towards the goal of social security and if India continues to evade her responsibilities in this respect, she must be content to relegate herself to a position of permanent inferiority in the society of civilised nations.

CHAPTER I

BASIC (PRIMARY AND MIDDLE) EDUCATION

1. In every country in the world, whether occidental or oriental, which aspires to be regarded as civilised, with the exception of India, the need for a national system of education for both boys and girls which will provide the minimum preparation for citizenship has now been accepted.

In India the need for similar provision has been under discussion for many years, but that no substantial progress has yet been made is obvious from the fact that over 85 per cent. of her population is still illiterate. Any country so situated is a potential source of danger under modern conditions and when the country in question is or aspires to be a democracy, the position becomes worse than dangerous. The primary requisite of any system of public education for a democracy is that it should provide for all its members, and not for a few only, at least such training as may be necessary to make them reasonably good citizens.

It cannot be said that world opinion has yet reached or is even approaching a final conclusion, as to what the length and content of this minimum training should be. Before the war in the U. S. A. and in most European countries the period for compulsory education extended from the age of five or six to fourteen or fifteen. The plans for post-war educational development which have been published foreshadow some lengthening of this period.

The two Committees on Basic Education, set up by the Central Advisory Board of Education in 1938-39, on whose reports the proposals contained in this chapter are very largely based, have prescribed that the age-range for compulsory school attendance in India should be from six to fourteen. While for reasons given in the next chapter a somewhat lower age than six for starting school might be educationally desirable, a compulsory school life of eight years may be taken as the basis upon which plans for immediate post-war development should be made. The Inter-University Board have suggested an eight-year compulsory school life beginning at age five but the Board regard thirteen as too early an age for 80 per cent. of the future citizens to finish their full time education, while to increase the compulsory period by one year would add approximately Rs. 20 crores to the ultimate cost. While adhering to six as the minimum age for compulsion they agree that children should be encouraged to attend school at five or even earlier. In conformity with worldwide opinion the Committees mentioned above recommended and the Central Advisory Board agreed that any system of universal compulsory instruction must also be free.

2. Although the scope of the provision outlined above may not appear very generous in comparison with what is contemplated elsewhere, a very brief survey of the present position in India will show clearly what an enormous advance it will mean as well as the magnitude of the problems which will have to be solved before it can be brought into full operation. In 1940-41 compulsion was in force in 194 urban areas and 3,297 rural areas (comprising 14,501 villages) in British India. Of these 66 urban and 2,908 rural areas were in the Punjab. It extended in no case beyond the end of the primary stage, *i.e.*, class IV or V and except in 23 areas, applied to boys only. Moreover, it cannot be said that in any of these areas, even in the Punjab, compulsion is really effective. It can hardly be so where there is no organised system of trained Attendance Officers to see that children attend school and the courts are disinclined to enforce the law.

Apart from the comparatively few compulsory areas, attendance at school has been and still is on a voluntary basis. In 1936-37* there were 1,19,85,986

* Eleventh Quinquennial Review of the Progress of Education in India.

pupils on the registers of some school or other as compared with approximately 6,00,00,000 children in the 5—14 age-group. Of these children 51,88,601 were in class I, 23,55,418 in class II, 17,22,292 in class III, 12,14,504 in class IV and only 7,03,628 in class V. The balance were in Middle Schools, including the middle sections of High Schools. Figures for previous years record a similar falling off. Attendance is of course better in some areas than in others but in regard to British India as a whole these figures mean that less than one out of every four children stayed long enough at school to reach the earliest stage *viz.* class IV, at which permanent literacy is likely to be attained. The result is that money spent on the others (nearly 80 per cent.) may be regarded as largely wasted.

There is only one way to stop this wastage and that is to make education compulsory. In addition to Attendance Officers who know their duty and courts which are ready to do theirs, educational propoganda on an intensive scale will have to be carried out, if parents are to be made to realise that education extending through childhood to the early years of adolescence is a paramount necessity in the interest of their children. In almost every country, compulsion when first introduced has been met by opposition, mostly from the very quarters which it was especially designed to benefit. It is hardly surprising that poor peasants and labourers should be reluctant to sacrifice any contribution which can be expected from their children towards the livelihood of the family, but at the same time there must be something seriously wrong with economic conditions, if the budget of even the poorest family is dependant on the earnings of little children. It is encouraging to note from experience in other parts of the world that no nation which has once been given a public system of education, however imperfect it may be and whatever the opposition to it in the beginning, would now submit to be deprived of it.

3. It is unnecessary to repeat here in detail the proposals made by the Committees of the Central Advisory Board for the organisation of a national system of compulsory education on basic lines for all boys and girls between the ages of six and fourteen. Their reports have already been made public, but for convenience a summary of their main conclusions and recommendations has been included at the end of this chapter.

Basic (Primary and Middle) education, as envisaged by the Central Advisory Board, embodies many of the educational ideas contained in the original Wardha scheme, though it differs from it in certain important particulars. The main principle of "learning through activity" has been endorsed by educationists all over the world. At the lower stages the activity will take many forms, leading gradually up to a basic craft or crafts suited to local conditions. So far as possible the whole of the curriculum will be harmonised with this general conception. The three R's by themselves can no longer be regarded as an adequate equipment for efficient citizenship. The Board, however, are unable to endorse the view that education at any stage and particularly in the lowest stages can or should be expected to pay for itself through the sale of articles produced by the pupils. The most which can be expected in this respect is that sales should cover the cost of the additional materials and equipment required for practical work.

"Basic" education, while preserving its essential unity, will consist of two stages, the junior (or Primary) stage, covering a period of five years and the senior (or Middle) stage, covering three years. Those who find the term "Basic" unattractive and prefer the existing nomenclature of "Primary" and "Middle" for these two stages are of course at liberty to retain these, provided they accept the essential unity of the two stages and the necessity of so planning the Primary course that it

leads up naturally to the Middle. The main reason for this division is that at about the age of eleven or twelve, with the onset of adolescence, certain mental and physical changes occur in boys and girls which necessitate a corresponding adjustment both in the content of the curriculum and in the methods of instruction. "Hence", as the second Basic Committee say, "arises the need for treating the instruction given before and after this psychological break as forming two well defined stages, each with its own scope, aim and technique though inspired by the same fundamental aim".

It has also been recommended that the transfer of children from the "basic" school to other forms of post-primary education should be provided for after the 5th class, *i.e.*, at the conclusion of the Junior Basic (Primary) stage or about the age of eleven plus in order that children with special abilities and aptitudes may embark on a more prolonged course of further education than can be provided in the Senior Basic (Middle) Schools, where the great majority will finish their full-time schooling. Reference will be found in the chapter on High Schools to the question of how to select such children and to the assistance which will be necessary to enable poor children of ability to enjoy the benefits of higher education. As the Committee say:—

"The various types of post-primary schools (other than the 'Senior Basic' school) to which suitable children may be transferred at the end of the Junior Basic Stage should provide a variety of courses extending over a period of at least five years after the age of eleven. These courses while preserving an essentially cultural character should be designed to prepare pupils for entry to industrial and commercial (and one may add agricultural) occupations as well as to Universities".

With regard to the Senior Basic (Middle) School, its main objective has already been defined. On leaving it the pupil should be prepared to take his place in the community as a worker and as a future citizen. He should also be inspired with the desire to continue his education through such means as a national system of education may place at his disposal. With this end in view the Senior Basic School should afford the widest possible opportunities for those corporate activities, including physical training and organised games, which are essential to supplement the instruction given in the class-room.

Careful consideration has been given to the question whether English should be introduced as a subject in the Basic School. The Board are of opinion that under no circumstances should it find a place in the curriculum of the Junior Basic (Primary) School. Nor are they satisfied as to the desirability of introducing it at the Senior Basic (Middle) stage but they recognise that there may be a strong public demand for it in certain areas and they feel that the final decision in this case must be left in the hands of the Provincial Education Department. This modifies conclusion No. 13 of the First Committee (*cf.* page 13).

It is important that a Senior Basic (Middle) School should contain enough children to make proper grading possible and to enable adequate facilities for practical instruction to be provided on an economic basis. For this reason in rural areas with a scattered population, hostels will have to be attached to Senior Basic (Middle) Schools.

Experiments in Basic education have already been carried out in five Provinces and these should provide in due course valuable data for future developments.

4. Some indication has been given above of the kind of education which a national system should provide for the great bulk of the country's children; those desiring further information should consult the two Reports already mentioned. Attention must now be turned to what is in fact the predominant factor in the success of all education, *viz.* the quality of the teacher. It is a notorious fact that the teaching

profession in this country is miserably paid—the average pay of primary teachers in Government schools is Rs. 27 p.m. and in private schools it is generally lower ; in one large Province the average is less than Rs. 10 p.m. It is clear that both the pay and the status of the teacher will have to be very considerably improved if the profession is to attract the right type of recruit. The present position is explicable only on the assumption that the authorities responsible do not regard education as a service of any real public importance. An all-round improvement in the standard of teaching is all the more necessary because Basic Education in view of its emphasis on craft work and the correlation of other subjects therewith demands a high level of teaching skill, if it is to be really successful.

A particularly urgent need is that for a vast increase in the number of trained women teachers. Apart from the Pre-Primary Schools, where all the teachers must be women, at least three-fifths of the teachers in Junior Basic Schools and one-half of those in Senior Basic Schools ought to be women. It has been assumed that the former will generally be mixed but that separate schools for boys and girls will be the rule in the latter. In 1942 the Central Advisory Board of Education appointed a Committee to consider the whole question of the recruitment, training and conditions of service of teachers and the recommendations contained in their report were adopted unanimously by the Board at their meeting held in January 1943. Detailed reference is invited to this important report, as its findings will be found to determine to a very large extent both the efficiency and the cost of the national system now under consideration. Briefly, the Committee prescribed as the minimum qualifications for a teacher in a Basic (Primary or Middle) School a matriculation certificate or its equivalent followed by a two or three years course of professional training. In regard to salaries their essential recommendations are set out below :—

The minimum national scale for teachers in Junior Basic (Primary) Schools (including Infants and Nursery Schools) should be Rs. 30—1—35—3 (biennially)—50 p.m. ; the same scale is recommended both for men and women. The Committee regard it as essential that teachers of village schools should have free houses : where this is not possible, 10 per cent. should be added to their salaries. This scale, which has been framed for what may be described as normal rural areas, may be increased up to 50 per cent. to meet the needs of areas where the cost of living or other factors necessitate a more generous scale, *e.g.*, in Delhi or one of the provincial capitals the initial salary for primary teachers may be raised to Rs. 45 and the maximum to Rs. 75.

For teachers in Senior Basic (Middle) schools the minimum scale recommended is Rs. 40—2—80 p.m., with the same provision as in the case of primary teachers for increasing it to meet the needs of more expensive areas. Here also the Committee see no reason for differentiating between men and women.

The scales prescribed above are for ordinary assistant teachers in the different types of school. The Committee are aware that by themselves they will hardly achieve the object of making the teaching service attractive to really good people or placing it on a level of comparative equality with other professions. But the Committee believe that the inducements to the keen and ambitious to take up teaching can be increased if a reasonable number of posts are available which carry salaries above the ordinary scales. Outstanding among these posts are those of Headmaster and Headmistress and much may be done to raise the status of teaching in the eyes of the public generally and of parents in particular by according special recognition to these posts. Apart, however, from what may be described as the propaganda aspect of this matter, the Committee are convinced that not only the administrative responsibilities of Heads in all but the smallest schools but what is much more important the influence which particularly in rural areas they should exercise on

pupils, parents and the community at large must receive much greater recognition than they have received hitherto. The head of even the smallest school ought to be a person of consequence in the district and this should be reflected in his salary. The Committee accordingly recommend that Head Teachers in the different grades of schools should be remunerated as set out below.

N.B.—As in the case of assistant teachers scales may be increased up to 50 per cent. in areas where the cost of living or other factors necessitate it.

1. Junior Basic (Primary) Schools.

Grade.	Size of school.	Salary scale p.m.	Remarks.
A.	1 or 2 class sections	Rs. 10 above scale for assistants ..	Same scale for men and women.
B.	3, 4 or 5 class sections	Rs. 50—4—70	Where no house is provided,
C.	5 or 6 to 8 or 10 class sections ..	Rs. 60—4—80	10 per cent. should be added to salary.
D.	Above 8 or 10 class sections ..	Rs. 80—4—100	

2. Senior Basic (Middle) Schools—(Vernacular and Anglo-Vernacular).

Grade.	Size of school.	Salary scale p.m.	Remarks.
A.	3 or 4 class sections	Rs. 80—4—100	Same scale for men and women.
B.	4 or 5 to 6 or 8 class sections ..	Rs. 90—4—110	Where no house is provided,
C.	Over 6 or 8 class sections	Rs. 110—4—130	10 per cent. should be added to salary.

The Committee were further of opinion that all recognised teaching service should ultimately become pensionable and that where no pension funds exist or can be expected to exist in the near future contributory provident funds should be at once established on the basis of 50 per cent. contribution from the teacher and 50 per cent. from the employer. Although, as will be seen, these scales represent a very substantial improvement on the existing position, it is still open to doubt whether in view of the better educational background now demanded they will succeed in attracting an adequate supply of teachers of the right type.

5. On the basis of 1 teacher to every 30 pupils in the Junior Basic (Primary) Schools and 1 teacher to every 25 pupils in the Senior Basic (Middle) Schools, 18,21,760 teachers will be needed to cope with a total school population of 5,15,25,000 between the ages of six and fourteen, excluding the 20 per cent. of children between eleven and fourteen who may be expected to proceed to High Schools.

A word of explanation may be necessary regarding the pupil-teacher ratio taken above. In the case of Great Britain, where even today a class in a Primary School may have 40 or more pupils on the register, it will be discovered on scrutiny that if the total number of children is divided by the total number of teachers employed, the average actually works out at less than 30 children per teacher. It is not practicable to organise schools, especially in the rural areas, into convenient units of say 40. If 40 were fixed as the maximum number of pupils per teacher, a school of 45 will need two, and one of 85, three teachers and so on. Then, too, classes have to be sub-divided for craft subjects and Heads relieved of regular teaching duties, which necessitates extra teachers. It will also be remembered that at the Senior Basic (Middle) stage, classes will tend to be smaller and more sub-division will be necessary. A greater number of specialist teachers will also be needed. It will thus be seen that 1 teacher to every 30 children in Junior Basic (Primary) and 1 to every 25 in the Senior Basic (Middle) Schools is not an over-generous standard to take in regard to staffing.

6. With the data now available it is possible to make a rough and ready calculation of the approximate cost of establishing a national system of Basic (Primary and Middle) Schools. Teachers' salaries in Basic and most other types of school will account for roughly 70 per cent. of the total expenditure, the balance being distributed as shown in the table below :

Estimated Cost of a system of universal Basic (Primary and Middle) Education for British India when in full operation.

Schools.	Age Range.	*Estimated No. of pupils (Lakhs)	†No. of teachers required	‡Average salary per teacher p.m.	§Total salary bill per annum (Lakhs)	||Other Expenditure (Lakhs)	Total gross cost per annum (Lakhs)	Cost per pupil per annum
1	2	3	4	5	6	7	8	9
				Rs.	Rs.	Rs.	Rs.	Rs.
Junior Basic (Primary)	6—11	360	12,00,000	42·5	80,00	34,29	114,29	31·84
Senior Basic (Middle)	11—14	156	6,00,000	61·5	60,55	25,95	86,50	55·31

*The estimate is based on Public Health Commissioner's Report, 1940. Of the 11—14 age-group four-fifths are shown in Senior Basic (Middle) Schools.

†One teacher to 30 pupils in Junior Basic (Primary) Schools, one to 25 in Senior Basic (Middle) Schools.

‡Average salary on the basic scales in accordance with Government's actuarial calculation.

§Additions have been made for Head Teachers, higher scales in urban areas, house allowances, Government contribution to pensions or provident funds etc. Teachers' salaries are taken as accounting for 70 per cent. of the total gross cost.

||This includes (a) loan charges, 5 per cent. of total cost, (b) special services, including school medical service, special schools, etc., 10 per cent., (c) administration, 5 per cent., (d) books, stationery, apparatus and equipment, maintenance and repair of buildings and furniture and miscellaneous charges, 10 per cent. Other expenditure is taken as accounting for 30 per cent. of the total gross cost.

A more detailed statement showing the estimated cost of establishing Junior and Senior Basic Schools in Provinces and Local Administrations will be found at Appendix—Tables A and B.

It will be seen from the above table that the total cost of establishing a national system of Basic (Primary and Middle) schools will be just over Rs. 200 crores. From this total the amount now spent on Primary and Middle Schools (except perhaps the Middle sections of High Schools) should be deducted in theory to give the additional cost that will be involved by the establishment of a universal compulsory and free system of Basic Education for boys and girls between six and fourteen. Such a deduction would, however, only be justified in fact, if it were feasible to establish such a system in the very near future; but for a compelling reason, which is explained in the chapter on the Training of Teachers, it will take under the most favourable auspices 30 to 40 years before it can be brought into full operation. It has, therefore, been thought prudent to treat the money now spent on educating children in Primary and Middle Schools as a reserve to meet in part, at any rate, the probable increase of population during the period of expansion.

7. The conclusions contained in the reports of the Board's two Committees on Basic Education which examined the Wardha Scheme are set out below:

(a) **First Committee:**

- (1) The scheme of 'basic' education should first be introduced in rural areas.
- (2) The age range for compulsion should be six to fourteen years, but children can be admitted to the 'basic' school at the age of five.
- (3) Diversion of students from the 'basic' school to other kinds of schools should be allowed after the 5th class or about the age of eleven *plus*.
- (4) The medium of instruction should be the vernacular of the pupils.
- (5) A common language for India is desirable. This should be Hindustani with both the Urdu and Hindi scripts. Option should be given to children to choose the script and provision should be made for teaching them in that script. Every teacher should know both scripts, viz., Urdu and Hindi. Some members of the Committee suggest that the adoption of Roman script might prove a solution to the language difficulty and greatly minimise the work of both scholar and teacher.

(6) The Wardha Scheme of basic education is in full agreement with the recommendations made in the Wood—Abbott Report so far as the principle of learning by doing is concerned. This activity should be of many kinds in the lower classes and later should lead to a basic craft, the produce from which should be saleable and the proceeds applied to the upkeep of the school.

(7) Certain elements of cultural subjects, which cannot be correlated with the basic craft, must be taught independently.

(8) The training of teachers should be reorganized and their status raised.

* (9) No teacher should receive less than Rs. 20 per mensem.

(10) Efforts should be made to recruit more women teachers and to persuade girls of good education to take up teaching.

(11) Basic schools should be started only when suitable trained teachers are available.

(12) The curriculum will need revision in the light of experience.

† (13) English should not be introduced as an optional subject in basic schools.

(14) The State should provide facilities as at present for every community to give religious teaching, when so desired but not at the cost of the State.

(15) No external examinations need be held. At the end of the basic school course a leaving certificate based on an internal examination should be given.

(16) Pupils wishing to join other schools at the end of the 5th class (age eleven *plus*) should also be granted a leaving certificate.

(17) Promotion from class to class will be determined by the school, though the results of the internal examinations should be subject to the supervisor's inspection.

(b) Second Committee :

(1) While the provision of 'pre-basic' education in Nursery and Infants Schools and classes is highly desirable, it is not practicable at this stage, in view of the lack both of money and of trained women teachers, to advocate its introduction on a compulsory basis. Provincial Governments should aim in the first place (a) at providing model Infants and Nursery Schools in suitable centres, (b) at increasing the supply of properly trained infants teachers, who should be women, (c) at encouraging the enrolment in 'basic' schools of children below the minimum age for compulsory attendance and (d) at stimulating the provision by voluntary agencies of efficient 'pre-basic' schools.

(2) 'Basic' education should comprise a course of eight years from the age of six to fourteen years and that this course while preserving its essential unity should consist of two stages—the first stage, the 'junior' stage, covering a period of five years and the second stage, the 'senior', three years.

(3) The transfer of children from the 'basic' school to other forms of post-primary education should be allowed after the 5th grade, i.e., at the conclusion of the 'junior basic' stage.

(4) The various types of post-primary school (other than the 'senior basic' school) to which suitable children may be transferred at the end of the 'junior basic' stage should provide a variety of courses extending over a period of at least five years after the age of eleven. These courses, while preserving an essentially cultural character, should be designed to prepare pupils for entry to industrial and commercial occupations as well as to Universities.

*(The minimum now prescribed is Rs. 30 p.m.)

†(Since modified—*cf.* page 9).

(5) Special arrangements should be made in these schools for assimilating pupils who decide to continue their education after completing the full course in the 'basic' school, i.e., after reaching the 8th class.

(6) Suitable courses should be framed for girls attending 'senior basic' schools, which should include such subjects as cookery, laundry work, needle work, homecrafts, the care of children and first aid, the remainder of the instruction to be correlated with this course of domestic science in accordance with the general principles of the 'basic education' scheme.

(7) A standing committee of the Central Advisory Board of Education should be appointed to watch new educational experiments carried on in the provinces as well as the progress of educational developments generally, with special reference to 'basic' education, and to make recommendations to the Board for necessary action. There should be a representative of the Hindustani Talimi Sangh on this Committee.

(8) Subject to such conditions as are set out in the report the Central Government should contribute not less than half the amount of the approved net recurring expenditure on 'basic' education in each province, the balance to be found by the Provincial Government and the local bodies entrusted by it with the administration of compulsory education. For capital expenditure on buildings, equipment, etc., a loan system should be adopted.

(9) A central agency should be established in each province for the disposal of marketable articles produced in schools.

The Central Advisory Board of Education adopted most of the conclusions and recommendations of this Committee. With regard to conclusion No. 8 their decision was :

"While the majority of the members of the Board accepted the view of the Committee, the official members representing the Government of India expressed their inability to commit themselves in any way. The representative of the Legislative Assembly attending the meeting felt himself precluded under existing circumstances from supporting the Committee's recommendation. One or two members, while in favour of the principle that the Central Government should make some contribution, found themselves unable to go as far as the Committee desired".

8. Summary of the main conclusions in this chapter :—

(a) A system of universal, compulsory and free education for all boys and girls between the ages of six and fourteen should be introduced as speedily as possible though in view of the practical difficulty of recruiting the requisite supply of trained teachers it may not be possible to complete it in less than forty years.

(b) The character of the instruction to be provided should follow the general lines laid down in the reports of the Central Advisory Board's two Committees on Basic Education.

(c) The Senior Basic (Middle) School, being the finishing school for the great majority of future citizens, is of fundamental importance and should be generously staffed and equipped.

(d) All education depends on the teacher. The present status and remuneration of teachers, and especially those in Primary Schools, are deplorable. The standards in regard to the training, recruitment and conditions of service of teachers prescribed in the report of the Committee approved by the Central Advisory Board in 1943 represent the minimum compatible with the success of a national system: these should be adopted and enforced everywhere.

(e) A vast increase in the number of trained women teachers will be required.

(f) The total estimated annual cost of the proposals contained in this chapter when in full operation is Rs. 200 crores approximately.

CHAPTER II.

PRE-PRIMARY EDUCATION

1. It is one of the many consequences of the general lack of educational planning in India that a very impressionable, plastic and educationally potent period of a child's life has received so little attention. In most countries in Europe and America it has now been clearly recognised that the nursery or infants school has an important part to play in every school system. Russia, where an extremely efficient system of kindergartens, crèches and nurseries has been evolved, deserves special mention in this connection. Outside India the nursery school has come into its own and has taken a well-defined place in the fabric of public instruction, but the importance of looking after the physical and mental welfare of future citizens from their earliest years has still to be brought home to the responsible authorities in this country. Official neglect, however, is far from being the only obstacle; ignorance and indifference on the part of the people most closely concerned has also contributed to the present sorry state of affairs. Even if proper facilities were provided, it would be by no means an easy matter to persuade the Indian mother to subordinate her natural affections in the interest of a more healthy physical and mental environment for her children. A great deal of propaganda and training of public opinion will be necessary before a system of pre-primary education can be successfully introduced.

2. It is necessary first of all to define what is meant by pre-primary education as applied to India's needs. In Great Britain and other Western countries, where the age for compulsory attendance is five or even lower, it is usual to distinguish between Infants Schools or classes, which cater for children between the ages of five and seven or eight, and Nursery Schools, or classes, which are designed for those below the compulsory school age. Nursery and Infants classes, as distinct from Nursery and Infants Schools, mean special classes attached to schools for older children. In the Indian system, so long as the age for compulsion is fixed at six, there will hardly be room for the Infants School as understood in the West. All pre-primary instruction, therefore, whether provided in separate schools or in classes attached to Junior Basic (Primary) Schools, may conveniently be called 'Nursery', because this word clearly denotes the character of the environment and teaching that will be required.

3. Of the reasons for providing special educational facilities for children below a compulsory age of six, which many people regard as too late an age for the great majority of children to start their schooling, the most urgent concerns the physical aspect. It has been established that many defects, which ought to be remedied quickly, reveal themselves before this age and it is therefore necessary, especially in town or other areas where housing conditions are unsatisfactory, that primary education should be supplemented by a generous provision of Nursery Schools and classes for children below the minimum age for compulsory attendance.

The Central Advisory Board's second Committee on Basic Education recognise this necessity, though it is possible that they under-emphasised the State's responsibility in the matter. It may be doubted whether private enterprise can be relied upon to fill the gap.

Apart from consideration of the children's health the case of the working mother has to be borne in mind. It would be regrettable if women were hindered from taking their proper position in society and contributing their share to its economic and cultural progress on account of domestic liabilities, but it would be still more regrettable if they were able to do so only at the expense of their children. It is the duty of the State to come to the rescue, for the sake both of its

future citizens and of those that bear them, by providing bright, well-equipped and well-staffed Nursery Schools, where the children can be properly looked after while their mothers are at work. Educationally the Nursery School aims at providing a carefully controlled environment which should cater in the healthiest and wisest manner possible for the mental, physical and social needs of the growing child. If it is conceded that at any stage of development the influence of environment is of importance, then it stands to reason that in the very early years of childhood the provision of a good environment is of paramount importance. Where the home cannot provide this, it is the business of the State to intervene.

4. The question then arises as to what areas would be most suitable for the establishment of Nursery Schools. In this connection it is necessary to take into consideration, besides the actual needs of a given area, its economic aspect and the problem of sufficient numbers. It has already been pointed out that due to congestion, bad housing and greater vulnerability to disease, children in town areas need most the facilities that a Nursery School can offer and there are usually enough of them in a given area to make such provision a practicable proposition. Village children also, whose mothers in many cases have to work in the fields and whose homes are often hardly worthy of the name, have a strong claim for similar amenities. But it is doubtful whether in a radius of about a mile and a half, the maximum distance which small children can be expected to travel, and especially in rural districts where there are hardly any means of conveyance, enough children can be mustered to form a reasonably economical school. For this reason, therefore, it is suggested that instead of attempting to establish full-fledged Nursery Schools in village areas, a Nursery class should be added to the ordinary Junior Basic (Primary) School. In fact it is desirable that the lowest class in all village Junior Basic (Primary) Schools should be known as the Nursery or Infants class and should be specially staffed and equipped for that purpose. It is hardly necessary to say that it should be in the charge of a woman teacher (or teachers) who have received the appropriate training. The regular Nursery School may then be confined for the present to towns. It may conveniently be housed on the same site as, or even form a department of, the Junior Basic (Primary) School, since that will enable older children to look after their younger brothers and sisters on the way to and from school.

5. The question of staff for Nursery Schools and classes is an all-important one. A very specialised kind of training is required for dealing intelligently with the very young. That teachers for infants should be women goes without saying: they alone possess the essential sympathy and knowledge of child nature. At the present time the supply of such teachers in India is negligible and one of the first tasks of any re-organisation will be to enlist the services of suitable women and to see that they are properly trained.

The Second (Wardha) Education Committee of the Central Advisory Board of Education, 1939, laid down as one of their main decisions:

“That.....the provision of ‘pre-basic’ education in Nursery and Infants Schools and Classes is highly desirable.....Provincial Governments should aim in the first place (a) at providing model Infants and Nursery Schools in suitable centres, (b) at increasing the supply of properly trained infants teachers, who should be women, (c) at encouraging the enrolment in ‘basic’ schools of children below the minimum age for compulsory attendance and (d) at stimulating the provision by voluntary agencies of efficient ‘pre-basic’ schools”.

As has been already pointed out, the words ‘highly desirable’ are an understatement. The provision of an adequate number of Nursery Schools and classes

is essential and although it may hardly be practicable, at any rate in the beginning, to make attendance compulsory, the schools should be free and no pains should be spared to make them as attractive as possible with the object of persuading parents to send their children voluntarily.

Apart from the provision made by the State there should always be scope in education for private enterprise. The fact that Government has hitherto done so little in this sphere makes the private ventures that have been launched all the more valuable and praiseworthy. Among the best known of these are the Jitendra Narayan Ray Infant and Nursery School for Indian children in Bengal, the Rajghat School and Children's Hostel, Benares, and the Infant's Section of the Besant Theosophical School, Adyar, in which the Montessori-system of education is followed.

6. A word about the methods of education in the Nursery School is perhaps necessary. A young child, as Abbott and Wood remark in their report, "needs experience more than instruction" and this is precisely what the Nursery School should aim at providing. They go on to say "that the education of the young children should provide. . . . for their physical care, for training them in good habits and for widening their experience through interesting activities. . . . We envisage such activities as the following: acting and singing, physical exercises, games and dancing, care of flowers and animals, drawing and making things. These activities minister to one or other of the characteristic needs of children and provide them with experience which gives them confidence in their growing powers. . . . The infant schools must be sensible, happy institutions which patently do something for the children which the home does not do but yet which the parents appreciate when it is done". There is hardly any room for any formal instruction in the 3 R's in the daily programme of a Nursery School. But through sensory-training, through the promotion of self-expression, through community living and companionship in an educationally controlled environment, the all round development—mental, social and physical—of the child is fostered. The foundations are laid which cover all these aspects of growth and development and the young child is then ready to absorb and assimilate that education for citizenship which a well-planned Basic School should impart.

7. The total number of children to be provided for on these lines can hardly be calculated accurately. This will depend entirely on the nature of the areas under question and on the success of "nursery" propaganda. Then too the age range cannot be rigidly fixed. The two and three year olds should be as welcome in a Pre-Primary School as the fours and fives. But the ages three to six may be taken as the normal range for the nursery school child and it would appear from the latest figures available (1940) for British India that there are 2,13,08,000 such children in the rural areas, and 31,00,000 in the towns. In England, about 1 child in 7 attends school voluntarily before the minimum compulsory age. If the same proportion were taken for this country the number between three and six would be 35,00,000. For the present, however, it may be sufficient to provide places for roughly a third of these in Nursery Schools and classes. On the same basis of calculation as for the Junior Basic Schools, *i.e.*, 30 children per teacher at an average salary of Rs. 42.5 p.m. the annual cost per capita comes to Rs. 31.84. In actual practice, this will probably work out somewhat higher, since the great majority of nursery children will be educated in town areas where the average salary of a teacher will have to be raised in order to meet the higher cost of living. Moreover, Nursery Schools require more space and more equipment. On the other hand relief may be given so far as staffing is concerned if older girls from High Schools and Senior Basic Schools are attached to

Nursery Schools for definite periods for training in child welfare. For the reasons stated above both the figure of 10,00,000 and the estimated cost must be regarded as tentative.

8. Summary of the main conclusions in this chapter :—

(a) An adequate provision of pre-primary instruction in the form of Nursery Schools or classes is an essential adjunct to any national system of education. The provision in this respect at present is negligible.

(b) In urban areas, where sufficient children are available within a reasonable radius, separate Nursery Schools or departments may be provided : elsewhere Nursery classes should be attached to Junior Basic (Primary) Schools.

(c) Nursery Schools and classes should invariably be staffed with women teachers who have received special training for this work.

(d) Pre-Primary education should in all cases be free. While it may not be feasible to make attendance compulsory, no efforts should be spared to persuade parents to send their children to school voluntarily, particularly in areas where housing conditions are unsatisfactory and/or mothers are accustomed to go out to work.

(e) The main object of education at this stage is to give young children social experience rather than formal instruction.

(f) On the basis of a normal age-range of three to six years provision has been made for 10,00,000 places in Nursery Schools and classes.

(g) The total estimated net cost of the proposals set out in this chapter when in full operation is Rs. 3,18,40,000.

CHAPTER III

HIGH SCHOOL EDUCATION

1. It has been assumed that in a national scheme of education all children up to the age of fourteen will be required to undergo full-time instruction. The function of the High School is to cater for those children who are well above the average in ability. It has been well said that the chief purpose of higher education is to form an élite not for its own sake but for that of society. Character and intelligence, which are the essential attributes of any élite, are not confined to any particular class in the community ; hence the selective principle by which children should be picked out for higher education on completion of the Junior Basic (Primary) stage is of the greatest importance. At present admission to High Schools is mainly determined by whether parents or guardians are in a position to pay the fees ; little trouble is taken to ascertain whether those who seek admission are likely to derive full benefit from a High School education. Moreover, the High Schools tend to regard all Middle Schools as potential feeders and there is hardly any attempt to differentiate between the middle school education which is meant to be a complete stage in itself, and that which is designed to prepare pupils for High Schools. Any reorganisation of the High School system, therefore, should treat High Schools as distinct units differing in outlook and objective from the ordinary Senior Basic (Middle) Schools in which most children will complete their full-time education. The Board contemplate that in future the High School course will cover six years from about the age of eleven. It will therefore cover the Middle stages so far as those children are concerned who are selected for admission to High Schools. Primary departments, even if housed in the same premises as High Schools, should be regarded as entirely distinct units and organised accordingly. Here as at the lower stages there will be an appropriate place in the new system for private schools provided they satisfy the requirements prescribed in the case of the State schools.

2. The Second Wardha Committee of the Central Advisory Board of Education gave very careful consideration in 1939 to the relationship of High Schools to the Basic system of education, and recommended that pupils at about the age of eleven *plus* should on completion of the fifth class of the Junior Basic (Primary) Schools be diverted either to Senior Basic (Middle) or to High Schools, according to their abilities, aptitudes and general promise. For some time to come it may not be practicable to make high school education either free or compulsory but if pupils are to be admitted by selection only, those without the necessary financial resources will have to be provided with free places and in many cases with maintenance allowances or stipends as well. It is only by the assurance of adequate financial assistance in necessitous cases that the selective process for High Schools can be carried out fairly and effectively. It is relevant to point out that since in future the cost of high school education will be met largely out of public funds and only partially from fees, every high school pupil will be to some extent a scholarship holder and it is in the public interest to ensure that the pupils admitted are those most likely to take the fullest advantage of the education provided and so prove a remunerative investment on the part of the community.

The Board realise, however, that there will be parents who will wish their children to receive a high school education even though they may fail to reach the standard normally required for admission. The Board would not object to places being provided for such children on the condition that these are in addition to those required for children selected on the ground of ability and that the parents concerned are required to pay the whole cost of the education provided.

It would appear inequitable to spend public money on providing higher education for those who have not shown that they are likely to take full advantage of it.

The selection of pupils for higher education, therefore, assumes great importance and the methods to be employed should receive the most earnest consideration. Generally speaking they should aim at discovering promise rather than actual attainment and should be based on a careful scrutiny of the candidate's previous school record and of his or her performance at an examination designed and conducted by experts. The following selective process, which has proved successful elsewhere, may be worth trying in this country. Heads of Junior Basic (Primary) Schools should be asked in the first place to submit the names of those pupils in the appropriate age-group who in their opinion and on the strength of their school record would benefit by a high school education. The lists so submitted should be scrutinised by the Inspector or Inspectors of the area concerned with a view to seeing whether each school has recommended a reasonable number of candidates. Consultations should take place between Inspectors and Heads with the object of revising the lists where necessary. The candidates on the lists so revised should then undergo a common examination, which should not be too strenuous and should be designed to test intelligence and promise rather than actual attainment. This common examination should be controlled by a Board of Examiners specially constituted for the purpose. Parents whose children are not included in the original list of recommended candidates should have the right of requiring that their children should be tested at the common examination. This is only an outline of the kind of selective procedure which will be needed to obtain the right quality of pupils for the High Schools. It is fully realised that there are other methods and that in any case, modifications will be required to suit local conditions. Moreover, it is not intended that those who are not selected at the end of the Junior Basic (Primary) stage should be altogether debarred from admission to High Schools. Facilities will have to be provided for the transfer of suitable children from the Senior Basic (Middle) to the High Schools at some later stage, particularly where they show definite signs of late development.

3. Experience of such selective tests in other countries suggests that one child in every four or five of the 11-12 year age-group will be found fit for higher education. There is no reason to anticipate any substantial variation from this proportion so far as India is concerned. It has been generally accepted that with the adoption of the three years' degree course in Universities and the disappearance of the Intermediate stage, the high school course will in future cover six years or the equivalent of classes VI-XI in most provinces. On the basis of one child in every five being found fit for higher education, it is estimated that out of the total number in the age-group 11-17, at least 72,50,000 pupils in British India, boys and girls, both from urban and rural areas, will require accommodation in High Schools. In 1940-41, the numbers in the IX, X, XI and XII classes of High Schools in British India are only 4,54,140. To these must be added the pupils in classes VI to VIII which form part of High Schools; the number of these is not known but may be assumed to be not more than 5,00,000. Altogether, therefore, there are not more than about 10,00,000 pupils in all the existing High Schools, so that it will be necessary to provide accommodation for 62,50,000 pupils over and above the numbers for whom provision is now available. In order to avoid empty places and consequent waste of public money, steps should be taken to prevent high school pupils being withdrawn from school before completing the course except with the approval of the appropriate authorities. Employers and parents ought to be made fully aware of the importance of this and guarantees to this effect should be required from every parent and guardian before pupils are admitted to High Schools.

4. The distribution of High Schools between rural and urban areas is a question which needs careful consideration. The figures for 1940-41 show that out of a total of 3,861 High Schools in British India, 2,310 are located in urban areas, by which is meant towns with a population of over 5,000 persons, although the total population of these areas only amounts to 1/10th of the whole. The obvious inferences are that a larger proportion of the urban children are prepared to avail themselves of High School education or that those from the rural areas who seek a High School education are usually obliged to migrate to urban centres. The latter tendency is inevitable in this country with its scattered rural population and so long as the total number of schools is adequate, it may not be necessary or even desirable to redistribute High Schools strictly according to rural and urban population. Villages which are in proximity to urban centres will naturally take advantage of the schools in those centres. At the same time there is much to be said for increasing the number of rural High Schools and making such arrangements in regard to hostels and conveyance as will enable suitable pupils from the remoter areas to attend. The High School with an agricultural bias has indeed a most important part to play in the new system. It will not only contribute towards improvement in agriculture and rural uplift generally but it will also be the recruiting ground for the teachers whom the rural basic schools will require in such large numbers.

5. High School education should on no account be considered simply as a preliminary to University education, but as a stage complete in itself. Since as the national system expands, entrants to High Schools will be increasingly drawn from Junior Basic (Primary) Schools, it is clearly necessary that the curriculum in the lower classes of High Schools should develop naturally from that of the Junior Basic (Primary) School. While it will remain a very important function of the High Schools to pass on their most able pupils to Universities or other institutions of equivalent standard, the large majority of high school leavers should receive an education that will fit them for direct entry into occupations and professions. At present, there is a tendency for the high school curriculum to be unduly dominated by the requirements of Universities. In a well-organised system of public education only about one in ten to fifteen of the high school leavers will go on to Universities. Consequently, the High Schools should attach the utmost importance to preparing the great bulk of their pupils, who will not proceed to Universities, for entry into useful and remunerative employment of all kinds immediately on leaving school. It is to be hoped that in the near future with the development of a higher standard of High School education, a school leaving certificate, supplemented where necessary by further training of a technical or commercial type, will come to be regarded as a more normal qualification than a university degree for entry to all but the highest grades both in government service and business life. A changed outlook of this kind will demand a thorough overhauling of the present organisation and curriculum of High Schools. Since it is now generally accepted that there is no special road leading to culture and that a boy or girl can become educated in the real sense as easily through the medium of a course in technology or applied science as through one in arts, the task of harmonising cultural and vocational education ceases to present serious difficulties. It is essential that some kind of occupational interest or bias should enter into the later stages of the high school course. At present, almost all schools follow the beaten track as laid down by Universities and examining bodies and there is little variety in the scope and scheme of studies.

6. The reorganised High Schools should be of two main types—(1) the Academic High Schools and (2) the Technical High Schools. To adopt a broad but by no means

rigid differentiation, the Academic High Schools will impart instruction in the arts and pure sciences while the Technical High Schools will provide training in the applied sciences and in industrial and commercial subjects. In both types the course in the junior departments covering the present Middle stage will be very much the same and there will be a common core of the 'humanities' throughout. Art and music should form an integral part of the curriculum in both and all girls should take a course in domestic science. The proportion of schools in the two types will be mainly determined by the character of the locality and the nature of the employment which it offers. Where the population in a particular area will admit the existence of a number of High Schools, there ought to be a sufficiently large variety of schools to cater for the needs of the locality as well as for the aptitudes of the pupils. Transfer from one type to the other should be made as easy as possible at any rate up to the end of the junior course. In smaller centres, which can only be served economically by single High Schools, the individual schools should be required to offer as wide a choice of courses as possible. In rural areas for reasons already given where pupils are likely to take to agriculture on their own farms or elsewhere, an agricultural bias should be given to the curriculum. While the needs of the area will be the dominant factor in deciding what types of schools and what variety of courses should be provided, it should not be forgotten that many pupils will benefit most from a practical course, even though they may not be destined for an industrial or commercial career.

7. The medium of instruction in all High Schools should be the mother-tongue of the pupils ; English should be a compulsory second language. All pupils should also acquire some knowledge of mathematics and elementary science. Physical Training should be obligatory. It may not, however, be desirable to draw any rigid distinction between what may be called compulsory and optional subjects. The range available should be as wide as circumstances permit and subject to the same proviso the individual pupil's course should be settled in the light of his own aptitudes and interests and of the requirements of his probable future occupation. The following list of suitable subjects is intended to be suggestive rather than comprehensive ; it is certainly not suggested that all pupils should study all of them up to the school leaving certificate standard though some are obviously suitable only for the senior stage :—

Academic High Schools.

- | | |
|----------------------------------|---|
| 1. The mother-tongue. | 8. Science (Physics, Chemistry, Biology, Physiology and Hygiene). |
| 2. English. | 9. Economics. |
| 3. Classical languages. | 10. Agriculture. |
| 4. Modern languages. | 11. Civics. |
| 5. History (Indian and World). | 12. Art. |
| 6. Geography (Indian and World). | 13. Music. |
| 7. Mathematics. | 14. Physical Training. |

Technical High Schools.

- | | |
|----------------------------------|-----------------|
| 1. The mother-tongue. | 6. Mathematics. |
| 2. English. | 7. Physics. |
| 3. Modern languages. | 8. Chemistry. |
| 4. History (Indian and World). | 9. Biology. |
| 5. Geography (Indian and World). | 10. Economics. |

- | | |
|--|---|
| 11. Technological subjects (wood and metalwork, elementary engineering, measured drawing, etc.). | 14. Art (including designing for industrial and commercial purposes). |
| 12. Commerce (book-keeping, short-hand, type-writing, accountancy, commercial practice, etc.). | 15. Music. |
| 13. Agriculture. | 16. Physical Training. |

Girls High Schools.

A choice of the above subjects together with " Domestic Science " for all at the appropriate stage.

8. It has already been pointed out that the great majority of high school leavers will look forward to entering employment immediately they leave school, though a certain percentage of them may be expected to require further training for a period of one to three years, either full-time or part-time, in order to qualify themselves for posts that require specialised skill. The nature and scope of this further training and of the facilities which should be provided are discussed in the chapter on Technical Education. Reference should also be made to the chapter on Employment Bureaux in connection with the arrangements for placing high school leavers in suitable employment. Since it is reasonable to hope that the High Schools of the future will contain the cream of the rising generation, the importance of seeing that their output reaches the right market can hardly be over-emphasised.

A special reference should, however, be made here to a national need which the High Schools may be called upon to satisfy in the near future. To bring a whole nation under a compulsory system of education many thousands of teachers will be required, and since matriculation has been rightly prescribed as the minimum educational qualification for any intending teacher, the High Schools will have to satisfy this demand. In addition to the needs of the teaching profession, any comprehensive scheme for developing the social services will involve a vastly increased supply of doctors and nurses. In view of the present dearth of entrants the urgent need of supplying an adequate number of girls of the right type both for the teaching and medical professions will be one of the first problems which the Girls High Schools will have to tackle. Out of 4½ lakhs of pupils now in the upper sections of High Schools, only 40,000 are girls. Education for girls will have to make rapid strides, if a national system of education is to be established within a reasonable period.

9. An approximate estimate of the gross cost of a reorganised system of High Schools, as described in this chapter, is detailed in Appendix—Table C, first according to Provinces, then the total for British India, as well as a provisional total for Indian States. As in the earlier stages of education, the heaviest item of expenditure will be that on teachers' salaries, which will amount approximately to 70 per cent. of the total gross expenditure. The Board have adopted appropriate scales of pay and allowances for graduate and non-graduate teachers in High Schools, and also for Head-teachers, according to the size of schools. The Board specifically lay it down that the scales prescribed are the *minimum* national scale for teachers and that unless these scales are adopted, the teaching service will not attract men and women of the

requisite ability. The minimum salaries and allowances approved by the Board are set out below :—

Non-graduate Trained teachers in High Schools.—

Rs. 40—2—80 p. m. + 6½ per cent. Contributory Provident Fund.

10 per cent. house allowance in normal rural areas ; possible increase up to 50 per cent. to meet higher cost of living or other special circumstances.

Graduate Trained Teachers in High Schools.—

Rs. 70—5—150 p. m. + 6½ per cent. Contributory Provident Fund.

10 per cent. house allowance in normal rural areas ; possible increase up to 50 per cent. to meet higher cost of living or other special circumstances.

Headmasters and Headmistresses.—

of schools up to 250 pupils on roll Rs. 175—10—255 p.m.

of schools up to 500 pupils on roll Rs. 250—10—350 p.m.

of schools of over 500 pupils on roll Rs. 350—15—500 p.m.

The Board also recommend that some special posts of responsibility should be created among the senior teachers in High Schools, which would carry Rs. 20 p.m. in addition to the ordinary salary. Such teachers would be in charge of main groups of studies, *e.g.*, Languages, Science, etc. or of libraries, games, hostels and other important features of school life.

The following calculations are based on the salaries set out above.

The total number of pupils to be provided for in all High Schools in the age-group 11-17 in British India will be 72,52,920 (these figures are based on the Public Health Commissioner's Report for 1940-41). Of these, 39,09,794 pupils will be in the junior or middle stage of the High School, and 33,43,126 will be in the senior stage. One teacher for 20 pupils may be taken as a suitable staffing formula. This includes head-teachers, who may be expected to do a certain amount of class teaching but in big schools will be mainly concerned with administration, as well as teachers holding posts of responsibility. On this basis, the number of teachers required for High Schools in British India will be 3,62,640. Each High School should be organised as a single unit with a six years course, though for administrative convenience, particularly if it is a large school, it may be divided into a junior and a senior department. It is not, however, contemplated that the graduate teachers on the staff should confine themselves to the senior department and non-graduates to the junior department. For this reason the number of graduate and non-graduate teachers in the two stages of the High School has not been taken strictly in accordance with the number of pupils in the two stages but at half and half of the total number required. It has been assumed that 50 per cent. of the schools will ultimately be located in rural areas, and the other 50 per cent. in urban areas and that the requisite number of teachers in rural areas will have to be provided with rent-free houses or 10 per cent. of their salary towards house rent, and those in urban area schools will have to be given on an average a special allowance of 33½ per cent. of their pay to enable them to meet the higher cost of living in towns. This urban area allowance may, of course, vary according to local conditions and may go up to 50 per cent. of the normal salary in big cities. It may also be extended to rural areas in certain circumstances. A standard rate of provident fund contribution at 6½ per cent. of the salary has been applied uniformly to all scales of pay.

The actuarial average pay of the non-graduate teachers in the scale of Rs. 40—2—80 is Rs. 61·5 per mensem and of the graduate teachers in the scale of Rs. 70—5—150 is Rs. 118·7.

To the total of salaries and allowances, as worked out on the above basis, 10 per cent. has been added to cover the higher salaries of Head-teachers and teachers holding posts of responsibility. It is not possible to determine the exact number of Head-teachers that will be required, as schools will vary in sizes according to the variety of courses of studies provided and the number of pupils available in different localities.

The total bill for teachers' salaries may be taken to represent 70 per cent. of the gross total cost of High Schools. The other 30 per cent. will include loan charges on school buildings, special services, including medical inspection and treatment, books, apparatus, equipment and administration.

The details of cost of the maintenance of High Schools, estimated as above, work out as follows :—

Estimated total number of pupils in High Schools	72,52,920
Total number of pupils in junior departments	39,09,794
Total number of pupils in senior departments	33,43,126
Estimated total number of teachers in High Schools at the rate of 1 teacher to 20 pupils	3,62,640
Total number of non-graduate teachers	1,81,320
Total number of graduate teachers	1,81,320

NOTE.—The number of teachers in High Schools has not been shown in proportion to the number of pupils in the junior and senior stages for the reasons already stated.

	Rs.
1,81,320 non-graduate teachers at Rs. 61·5 p. m. for 12 months	13,38,14,160
6½ per cent. Contributory Provident Fund	83,63,385
33½ per cent. average urban area allowance for half the number of non-graduate teachers	2,23,02,360
10 per cent. house-rent allowance for half the number of non-graduate teachers in rural areas	66,90,708

Expenditure on salaries and allowances of non-graduate teachers 17,11,70,613

1,81,320 graduate teachers at Rs. 118·7 p. m. for 12 months	25,82,72,208
6½ per cent. Contributory Provident Fund	1,61,42,013
33½ per cent. average urban area allowance for half the number of graduate teachers	4,30,45,368
10 per cent. house-rent allowance for half the number of graduate teachers in rural areas	1,29,13,610

Expenditure on salaries and allowances of graduate teachers 33,03,73,199

Total of salaries of graduate and non-graduate teachers 50,15,43,812

10 per cent. of the total of salaries to cover expenditure on Head-teachers etc. .. 5,01,54,381

Other expenditure—

(Loan charges, special services, books, apparatus, administration, etc.) .. 23,64,42,083

Total gross cost per annum 78,81,40,276

Cost per pupil per annum Rs. 109

The same basis has been taken for Technical High Schools as for High Schools of the normal academic type, though it may be expected that the former, particularly in regard to their senior departments, will be more expensive in view of the larger provision for practical instruction. On the other hand economies will be effected, if Technical High Schools are housed, wherever possible, in senior technical institutions and make use of the laboratories, workshops and specialist staffs provided there.

10. According to the present information in regard to Secondary Education in British India, the expenditure on High Schools for boys is met as follows :—

60·3 per cent. income from fees. 3·7 per cent. from Local Bodies.
25·9 per cent. income from Government grants. 10·1 per cent. from other sources
(Endowments etc.).

Government grants to girls' schools are higher and work out at 38·8 per cent. of the total expenditure. These figures, however, are the average for all the provinces and there is considerable variation among provinces in the matter of Government subsidies to High Schools.

In England, according to the report of the Board of Education for 1938, 46·9 per cent. of the pupils had a completely free education in grant-earning secondary schools and 9·7 per cent. paid a reduced fee. On this basis it is reasonable to assume that in the High Schools in India, 50 per cent. of the pupils will have to be provided with free places or with total or partial remission of fees with an equivalent financial effect. Out of a total of 72,52,920 pupils, 36,26,460 will therefore produce no fee income, while a similar number may be expected to pay towards the cost of their education. Since those required to pay fees will generally speaking belong to fairly well-to-do families, it is reasonable to take the average fee income at Rs. 6 per mensem from each pupil; the total revenue from fees will thus amount to Rs. 26,11,05,120. This works out to about 30 per cent. of the total expenditure, so that 70 per cent. of the gross expenditure will have to be met from state aid and private endowments. In a country like India where private endowments for education are comparatively meagre, not more than 5 per cent. of the total expenditure can be expected from this source. This estimate is based on the present endowments for High Schools, which vary from 2 per cent. to 7 per cent. in British Indian Provinces. Thus if 35 per cent. of the total cost on High Schools is found from these two sources, the State will have to find the remaining 65 per cent. from public funds. The total net cost of the High School system outlined in this chapter will therefore amount to nearly Rs. 50 crores so far as British India is concerned.

11. The development of High Schools will inevitably depend on the expansion of Basic, and especially Junior Basic (Primary) Education and the rate of progress will be determined by the number of pupils brought under compulsory instruction in the lower stages. Although the existing primary schools may contain a number of boys and girls who would be fit and able to enter High Schools, if financial obstacles were removed, the main demand for increased High School provision will arise in the sixth year after a compulsory system of Basic education is introduced. Thereafter it will continue to increase until the peak is reached some forty years hence.

The High School is in one sense the backbone of a national educational system for it is to the High School that the country must look for the preparatory training of its leaders and experts in all walks of life.

12. Summary of the main conclusions in this chapter :—

(a) The High School course should cover six years and the normal age of admission should be about eleven.

(b) Entry to High Schools should be on a selective basis; only those pupils should be admitted who show promise of taking full advantage of the education provided. Additional places may be provided for those not selected provided that no cost falls on public funds.

(c) In accordance with the general principle set out in (b) above, places in High Schools should be provided for at least one child in every five of the appropriate age-group.

(d) In order to secure the right children, the methods of selection to be employed will require the most careful consideration. Special arrangements will have to be made for the transfer from Senior Basic (Middle) Schools to High Schools of suitable children and particularly of those who show signs of late development.

(e) High Schools should be of two main types (a) Academic (b) Technical. The objective of both should be to provide a good all-round education combined with some preparation in the later stages for the careers which pupils will enter on leaving school.

(f) The curriculum in all cases should be as varied as circumstances permit and should not be unduly restricted by the requirements of Universities or examining bodies.

(g) In order that no poor child of ability may be excluded, liberal assistance in the form of free places, scholarships and stipends should be available throughout the course.

(h) In order to secure teachers of the right type, the salaries paid in all recognised schools, whether maintained by the State or by private bodies, should not be less than those prescribed by the Central Advisory Board of Education.

(i) The estimated minimum net annual cost of the High School system outlined in this chapter when in full operation is Rs. 50 crores.

CHAPTER IV.

UNIVERSITY EDUCATION.

1. In order to determine how far the Indian University system as it exists today is fitted to become the top storey of the national educational structure now in contemplation, a short survey of its historical development may be helpful. It began with the foundation in 1857 of the three Universities in the Presidency towns of Calcutta, Bombay and Madras. Within less than a century fifteen other Universities have come into existence. Of these 18 Universities 15 are located in British India, and 3 in Indian States. The present enrolment and distribution of students are shown in Appendix—Table D. Most Indian Universities were modelled in the beginning on the original conception of the University of London. Their main function was to conduct examinations for the benefit of a number of affiliated but largely independent colleges. But in more recent years important changes have taken place. Some of the affiliating Universities have undertaken teaching responsibilities, created research departments and provided residential accommodation. New Universities of the unitary type have also been established and an interesting experiment on new lines is now being tried at Delhi. The Hunter Commission of 1882, the Universities Commission of 1902, the Sadler Commission of 1917, the Hartog Committee of 1927 have all left their mark on the growth of Indian Universities.

2. In spite, however, of all the attention which has been devoted to the subject of university education and of the valuable contributions to human knowledge which have undoubtedly been made by Indian Universities, it cannot be said that as a whole they have yet realised the full aims and aspirations of a university education in the highest sense. Their standards of scholarship and discipline have come in for frequent criticism and one of the results has been that Indian students who have graduated at European or American Universities are often looked upon as superior to those who have obtained the highest degrees of Indian Universities. They have also failed to attract foreign students in any appreciable numbers, though the arrangements recently set on foot for the reciprocal exchange of teachers and students with Chinese Universities mark an interesting development. Much remains to be done before many of them can be regarded as fulfilling the true function of a University, which a high authority has defined in the following words :

“A University aims at raising the intellectual tone of society, at cultivating the public mind, at purifying the national taste, at supplying true principles to popular aspiration, at giving enlargement and sobriety to the ideas of the age, at facilitating the exercise of political power and refining the intercourse of private life.”

3. There are several respects in which the present state of affairs in Indian Universities give cause for concern. The gravest of these is their failure to relate their activities sufficiently closely to the practical needs of the community as a whole. The Sapru Committee's report, published in 1935, showed the alarming extent of unemployment among University graduates. Even for minor posts in Government services before the war there were often as many as 60 to 70 applicants with University degrees. The economic system of the country may be mainly to blame for this situation, but the Universities cannot disclaim all responsibility. For apart from one or two recent attempts to set up Appointments Boards there is little evidence of any systematic attempt on their part to adjust their output to the capacity of the employment market to absorb it. Hundreds of young men, who have received a purely literary education, go about knocking at every office door without

any clear idea as to where their proper vocation lies. In the competition for employment, the jobs for which boys with an ordinary High School education would be adequately suited are taken by University graduates. If a careful statistical survey were made of unemployment among University graduates, perhaps not more than 20 per cent. would be found absolutely unemployed, but the numbers of those inadequately or unsuitably employed would probably exceed 50 per cent. This means that only 30 per cent. of the University products can be said to have secured employment of a type which is in keeping with their attainments or commensurate with the time and money which have been spent on their education.

Only a brief reference need be made to other defects to which attention has been called over a number of years. There can be no doubt that a great deal too much importance is attached to examinations and that the examinations themselves put a premium on book learning of a narrow kind at the expense of original thinking and real scholarship. It is not less true that over-crowded lecture rooms and over-worked lecturers are not conducive to that personal contact between students and teachers from which the greatest benefits of a university life may often be derived. The tutorial system is in a very embryonic stage in most Indian Universities. Nor do Colleges and Universities as a rule excite the same spirit of loyalty and obligation as is usual in other countries; the conception of a place of learning as an *alma mater* in the real sense is limited to comparatively few. While in many universities and many faculties, notably science, work of first class standard is being done, it cannot be said on the whole that Indian Universities are yet producing either in quality or quantity the leaders and experts in all phases of national life whom this country is likely to need urgently in the near future.

The real trouble in these and other respects lies in the fact that neither private benefactions nor grants from public funds have yet been on such a scale as to place universities in a position of financial stability. So long as they remain largely dependent on student and examination fees, they can hardly be expected to put such restrictions on admissions as would allow high standards to be maintained and the risks of educated unemployment to be minimised. Nor for the same reason are they able to finance new developments which might open up fresh avenues of profitable employment. There has been a general lack of planning in University education, and both Central and Provincial Governments have yielded to popular pressure in bringing Universities into existence without providing the necessary resources to enable them to function on sound lines. It has yet to be appreciated in many quarters that to run education on the cheap is the falsest of false economies. Moreover, Universities have been gravely handicapped by the fact that the education given in most high schools has been a very inadequate preparation for a University career. In the absence of any proper selection beyond what is provided by an admittedly easy matriculation examination, they have opened their doors to many students whom a more searching test would have debarred from entry. The position is further complicated by the absence of any general and liberal arrangements for assisting students of real ability who are prevented by poverty from seeking admission to Universities. Most Universities, beyond offering a few free places or scholarships to needy students, have no system of maintenance grants to enable such students to participate fully in university life.

An examination of the distribution of students in the principal faculties of the Universities for 1941-42 (see Appendix—Table D) reveals that out of a total of 43,742 undergraduates in the B.A. and B.Sc. classes, 32,972 are in the arts group, and less than one-third are in science faculties. Among the professional subjects, Law appears to attract many more than can expect to make a decent living by its prac-

ties. Universities have for many years followed the policy of unlimited admissions to courses of studies, especially in the case of arts, where an increased number of students has meant very little extension of financial responsibility.

4. The undeniable fact that there are many students in Universities today who should not be there, even though it may indicate that the present system is top-heavy, does not by any means prove that India is over-provided with university education. An analysis of present statistics may be suggestive in this connection. According to the latest figures, while there are 4,54,140 pupils in the upper stage of the High Schools in British India, there are 1,63,408 students in the Universities. Many of these are there not because they have been found fit for higher education or have a thirst for knowledge, but because they found no opportunities for employment on leaving school and their parents gambled on the chance that their sons might discover a successful career after obtaining a University degree. The large number of failures in University examinations is by itself a sufficient indication of the numbers of those admitted to Universities who are unfit for University education. Out of 20,502 candidates who appeared at the B.A. and B.Sc. examinations of all the British Indian Universities in 1940-41, only 11,185 candidates passed and 9,317, or 46 per cent., failed. Probably nowhere among the Universities of the world is there so large a proportion of failures in examinations as in Indian Universities. Apart from the waste of time and money on the part of all concerned the social effect of so much disappointment cannot be other than deplorable.

Of the total number on the rolls of the British Indian Universities in 1941-42, 85,072 were in the Intermediate classes. If Intermediate students are not considered as forming part of the University organisation, one in five of the High School pupils goes to a University. If Intermediate students are included in the University, the ratio is reduced to one in three. If half the total of Intermediate students is included in the University and the other half is considered as part of the High School, one in four of the High School pupils is found to join the University. Even if all the pupils beyond the primary stage are considered as potential entrants to the University (their total number being 18,20,355), one in ten is found to seek admission to the University.

Of the examinees of the year 1940-41 in the three stages, 1,39,882 appeared for the High School examination, 47,599 appeared for the Intermediate, and 20,502 appeared for the B.A. and B.Sc. pass degree examinations. The ratio of the three stages works out at 6 : 2 : 1. If the more precise method is adopted of following up the same batch of students through the three different stages, in 1936-37 the number of matriculates was 74,901 ; in 1938-39 the number of Intermediates was 22,660 ; and in 1940-41 the number of B.A.'s and B.Sc.'s was 11,185. The ratio still remains 6 : 2 : 1. The ratio of the Intermediate to the University stage will be slightly higher, if account is taken of those who join professional courses of studies after completing the Intermediate course.

In England and Wales the enrolment in High Schools for 1938 was 5,69,000 and the number of full-time students in Universities was 49,000. This works out at one in seven seeking admission to Universities. In pre-war Germany, there were 7,86,691 students in the Secondary Schools and 1,11,935 in Universities. The high proportion of students in Indian Universities as compared with the school-going population indicates that in India the superstructure of the educational system has been allowed to develop before the main building has been erected on broad and sound foundations.

If on the other hand the total number of University students is calculated in relation to the total population, it will be found that India is perhaps the most backward of all the principal nations of the world in University education. In pre-war Germany, the proportion of students in the Universities to the entire population was 1 to 690, in Great Britain 1 to 837, in the United States 1 to 225, in Russia 1 to 300, while in India it is 1 to 2,206.

There are 12 Universities in England for a population of 41 millions. In Canada, there are 13 Universities for a population of $8\frac{1}{2}$ millions, in Australia, 6 for a population of $5\frac{1}{2}$ millions. In the U. S. A. there are 1,720 institutions for education of a University type for a population of 130 millions while in India there are 18 Universities for a population of 400 millions. All this goes to prove that when India has a proper educational system, she will need more University education and not less than she has at present, but the growth of Universities should be in proportion to the expansion in the lower stages and conditional on the introduction of a sound selective process in higher education.

5. The anomalous position of the Intermediate stage in Indian higher education has often been criticised. While most Universities provide a two-year Intermediate course of studies followed by an examination at the end of the stage, the students of the Intermediate classes are not recognised as undergraduates. In some places also there are Intermediate Colleges which have no direct connection with Universities at all but are controlled by Boards of their own. The two-year degree course, which normally follows the Intermediate, offers inadequate scope or time for giving a sound and complete training in the subjects which the students select for specialisation. The Intermediate course of studies does not mark any definite stage in education and has for all practical purposes amounted to no more than an extension of the High School without any of the practical advantages which might be expected to accrue, if it actually formed a part of the High School. The Sadler Commission rightly recommended the abolition of this stage and the addition of one year to the High School course and the other to the University. This may be regarded as an essential and urgent reform.

6. There would appear to be no justification for suggesting that the Affiliating or the Unitary or any other type of University has shown itself to be specially suited to Indian needs. There is little to be said for uniformity at any stage of education and in a country so vast and various as India the need for constant experiment at all stages will be apparent. In the proposed reorganisation there is scope for all types. The Sadler Commission recommended the Unitary University as a better type than the Affiliating University, and it may be argued that where Universities of this type are feasible, they have certain definite advantages. Any attempt, however, to abolish the affiliating type of University will not solve the problem of higher education in India. Lord Haldane, who was at one time a convinced believer in the unitary type of University, came to the conclusion when he investigated the question of University reform as Chairman of the Royal Commission on University education that affiliating and examining Universities are indispensable even in small countries like England. In a country like India, affiliating Universities are an economic necessity, and higher education cannot be concentrated in selected centres only. What may be practicable in certain cases is that affiliated Colleges should confine themselves to teaching up to the degree stage while University centres concentrate on post-graduate teaching and research. It is at any rate essential that the University itself as distinct from the Colleges should not be a purely administrative or examining body but should be in a position to establish standards of scholarship and stimulate teaching generally.

Any reorganisation of Indian Universities should, however, begin by defining the minimum duration of a University course of study. In 1934 and 1939 the Inter-University Board and the Conference of Indian Universities accepted the principle of a 3 years degree course, provided that the High School system could be so reorganised as to absorb the first year of the Intermediate course without any lowering of standards. In 1935 the Central Advisory Board of Education endorsed this opinion. In the previous chapter on the High School it has been proposed to extend the upper stage of the school course to three years instead of the present two, with the avowed object of raising High School standards ultimately to the present Intermediate level and so facilitating not only the introduction of a 3 years degree course in Universities, but also the raising of University standards as well.

It should be made clear that the Board regard three years as the minimum duration of any University course. They recognise that in certain subjects e.g. Medicine, Technology, etc. the normal course will necessarily cover a longer period.

7. Reference has already been made to the vital importance of a careful selection of students for University education. The joint committee of the Central Advisory Board and the Inter-University Board, which investigated in 1942 the question of the School Leaving and Matriculation Examinations, was of opinion that at the end of the High School stage, "there should be one examination designed with a two-fold purpose (i) of testing the satisfactory completion of a course suited to the requirements of those who will pass directly from High Schools to occupations of various kinds, and (ii) of testing the suitability of those who desire admission to a University". This Committee was also in favour of a uniform range of subjects both for the School Leaving Certificate and Matriculation Examinations but felt that entrants for the latter should be encouraged to do specialised study towards the end of the High School stage. It was hoped that such an examination would lead to greater uniformity, since the standards set by the present School Leaving Certificate and Matriculation Boards vary widely at the moment from place to place.

8. Under the national system of education now proposed, out of an estimated total of over 33 lakhs of pupils of the IX, X and XI classes in the High Schools, roughly 11 lakhs will be leaving school every year. Even if, as is to be hoped, the standards for entrance to the Universities are raised uniformly everywhere, it will still be reasonable to expect at least one in fifteen of the High School leavers to reach the level of attainment required for and to be prepared to embark on a University course. In case this ratio may appear illiberal as compared with what obtains at present, it must be remembered that under the proposed national system there will be between seven and eight times as many boys and girls in High Schools as there are today.

On the minimum basis of 1 in 15, Universities will be called upon to admit annually some 74,000 matriculates. With a normal 3 years course and adequate provision for postgraduate work including research, approximately 2,40,000 places will be needed in Universities in British India. At the present moment (1941-42), if the first year students of the Intermediate Course are omitted, there are altogether only 1,21,484 students in all stages of the University course.

Attention must be drawn at this stage to the small number of women students in the Universities. Though all Universities without exception have admitted women to their courses of studies, examinations and degrees, the proportion of women students is still only 10 per cent. of the total. Many of the additional places to be provided should be filled by women, particularly in view of the large number of women teachers and doctors that will be required for any national schemes of education and health.

9. Closely connected with the selection of students is the problem of ensuring that the cost of University education does not become prohibitive in the case of poor students of ability. The solution is certainly not to cheapen University education further but to provide for the students in question the necessary financial assistance out of public funds. Besides a generous system of free places, those who cannot afford to maintain themselves at Colleges or Universities ought to be given a sufficient allowance to enable them to live free from want and to enjoy the same social amenities as other students. The Board have appointed a Committee to investigate the question of the award of scholarships, and this Committee has accepted the principle that "something more than exemption from fees is necessary to make education accessible to all". The Committee has also accepted the desirability of giving maintenance grants to not less than one-third of the total number of students in Colleges and Universities. The precise amounts and conditions upon which aid will be given will need to be worked out with due regard to local circumstances.

10. The total expenditure on education in all Intermediate and University classes amounted in 1940-41 to Rs. 4,63,83,971. Figures for the Intermediate as distinct from the University classes are not available. Of this total 39·4 per cent. was met from public funds, the balance coming from fees (47·7 per cent.) and from endowments, donations, etc. (12·9 per cent.). The cost per student works out at an average of about Rs. 300 per year but there is a great difference between one course and another. While the *per capita* cost of a medical student may be anywhere between Rs. 800 and Rs. 1,200 per annum, the cost of a student in arts may be as low as Rs. 100 to 200. For the purpose of an estimate the average cost under the reorganised system may be taken at Rs. 400 per student (excluding maintenance). This is approximately 33½ per cent. above the present average cost and makes provision for certain essential improvements in lecturers' salaries, reductions in the size of classes, more tutorial work, etc. For 2,40,000 places in Universities, the total estimated annual cost will thus be Rs. 9,60,00,000.

Against the estimated expenditure of Rs. 9,60,00,000 it may reasonably be expected that half the total number of students in Universities will be able to pay for their education at a rate of fee somewhat higher than at present, say Rs. 20 per month. The revenue from fees will, therefore, amount to 1,20,000, × Rs. 240 = Rs. 2,88,00,000. This equals 30 per cent. of the total expenditure : 10 per cent. of the balance may be expected from private endowments, leaving the State to contribute 60 per cent. of the total gross expenditure on University education. Expenditure on Universities will be met as below :—

	Rs.
From Fee income	2,88,00,000
From Government grants	5,76,00,000
From Endowments	96,00,000
Total ..	9,60,00,000

If, however, a sum equivalent to 10 per cent. of the total cost of University education were to be set apart for maintenance grants for needy students, the State will have to provide 70 per cent. of the total expenditure, which is Rs. 6,72,00,000.

11. For reasons explicitly or implicitly given in this report Universities must play a part of supreme importance in any national system of education. This makes it essential that in the interest of economy and efficiency their activities should be carefully co-ordinated in order to eliminate over-lapping or dispersion of effort. It is not less important to ensure that their highly valuable products are distributed to the best advantage of themselves and of the community as a whole,

and to make certain that funds are available for new developments and research, which the national interests may urgently require.

The formation of the Inter-University Board in 1925 was a desirable step in the direction of co-operation. The need for such a body was first stressed by the Sadler Commission in 1921, and was endorsed by the Lytton Committee. Though this Board has been doing work of considerable value, it is a purely advisory body and does not possess the authority which would enable it to co-ordinate university development in the ways or to the extent which a national system will require. It is not within its competence to insist on the raising of standards where this is obviously required or on the establishment of the conditions of service, including remuneration, which are necessary to secure teachers of the requisite calibre. Nor is it able to restrain unhealthy and uneconomic rivalry between universities in regard to new developments to prevent the creation of new universities, the need for which has not been established or to counteract the provincial outlook which puts obstacles in the way of students seeking facilities for study which are not available in their own areas. Above all, it is not invested with any power of the purse. It would appear, therefore, that some authority is needed, which would coordinate university education in the interests of the country as a whole. It is not suggested that such a body should be directly or indirectly under the control of the Central Government, even though the financial implications of educational reorganisation may ultimately make it desirable that the Central Government should relieve Provincial Governments to a large extent of financial responsibility for university education. It should also refrain from any interference in the ordinary administration of individual universities. What is contemplated is something on the lines of the University Grants Committee in Great Britain, a body which has operated with admitted success and without friction in a country where Universities are at least as jealous of their autonomy as Indian Universities. This Indian University Grants Committee, which should be constituted by Statute, should consist of a few eminent persons not directly connected with Government, whether Central or Provincial, or with any particular University, though for obvious reasons it is desirable that they should have considerable experience of University administration. Its main function will be to exercise a general supervision over the allocation of grants to Universities from public funds with the object of ensuring that Universities are in a position to meet the demands which may be made upon them. To enable them to plan ahead, financial assistance from public funds should take the form of block grants for a period of years. It is not proposed that Provincial Governments should cease to make grants direct to their local universities, unless they would prefer to do so through the University Grants Committee. It is, however, suggested that when a Provincial Government desires to make a grant to a University for any substantial new developments, it should first consult the University Grants Committee. All grants to Universities for new developments by the Central Government should be made through the Grants Committee.

In addition to its main function, the Grants Committee should also be empowered

- (i) to encourage private benefactions ;
- (ii) to co-ordinate University activities with a view to avoiding overlapping and to adjusting so far as possible the output of the Universities to the economic needs of the country ;
- (iii) to prevent undesirable competition between Universities, and to remove all inter-provincial barriers ;
- (iv) to visit Universities periodically with a view to ascertaining their needs at first hand ;
- (v) to establish cultural contacts and to arrange for the exchange of teachers and students with foreign Universities.

12. Summary of the main conclusions in this chapter :—

(a) Indian Universities, as they exist to-day, despite many admirable features do not fully satisfy the requirements of a national system of education.

(b) In order to raise standards all round, the conditions for admission must be revised with the object of ensuring that all students are capable of taking full advantage of a University Course. The proposed reorganisation of the High School system will facilitate this. Adequate financial assistance must be provided for poor students.

(c) The present Intermediate course should be abolished. Ultimately the whole of this course should be covered in the High School but as an immediate step the first year of the course should be transferred to High Schools and the second to Universities.

(d) The minimum length of a University degree course should be three years.

(e) The tutorial system should be widely extended and closer personal contacts established between teachers and students.

(f) The importance of establishing a high standard in post-graduate studies and particularly in pure and applied research should be emphasised.

(g) Steps should be taken to improve the conditions of service, including remuneration, of University and College teachers where those now in operation are not attracting men and women of the requisite calibre.

(h) An Indian University Grants Committee should be constituted for the purposes and with the terms of reference set out in this chapter.

(i) To provide for the increased number of able and well-prepared students which a national system of High Schools may be expected to produce, approximately 2,40,000 places, or double the existing number, should be available in Universities.

(j) The estimated total net annual cost of the scheme for University Education set out in this chapter when in full operation is Rs. 6,72 lakhs.

CHAPTER V

TECHNICAL, COMMERCIAL AND ART EDUCATION

1. In the winter of 1936-37 two educational experts from England, Messrs. Abbott and Wood, visited India and produced a report, which for an educational report has attracted very considerable attention both in this country and outside. Mr. Abbott, who until a year or so previously had held the office of Chief Inspector of Technical Schools under the Board of Education, England, may be regarded as a world authority on many aspects of technical instruction and that part of the Abbott-Wood report for which he is responsible should be read in close connection with this chapter, as it will shed much light on the urgent problems under discussion here. In fact Mr. Abbott has dealt so thoroughly with the duration, scope and content of most of the courses that should be provided in Technical Institutions, that no attempt will be made to cover the same ground again. This chapter will, therefore, confine itself mainly to certain events and their corollaries which have occurred since the Abbott-Wood report was written and, as the Board's Committee on Technical Education has pointed out, to a certain extent modify its conclusions. The first of these is the war, which has already radically altered the Indian industrial system as Mr. Abbott saw it and is likely to have still more far-reaching effects in a few years' time. The second is the publication of the report of the Consultative Committee of the Board of Education, usually called the "Spens' Report",* which in advocating the need for the widest variety of curriculum for children at the High School stage emphasised the cultural and vocational value of a new type of school, called by the not very inspiring name of ' Technical High School '. The success, which experimental schools of this kind have already achieved in England in ensuring to Industry and Commerce their fair share of the best brains of the country, gives grounds for hope that they may satisfy in this country also a need which is already urgent and is likely to become more so in the post-war period, if present anticipations in regard to industrialisation are realised.

2. It is reasonable to assume, if there can be any confidence in human foresight, that there will be an urgent need for a considerable expansion in this branch of education in the post-war period. Hitherto the demand has been restricted partly by the limited number of openings which have been available in Industry and Commerce and partly by the practice of filling the more remunerative posts with imported technicians. The supply of suitable students has been adversely affected not only by the uncertainty of subsequent employment but also by the fact that young Indians of the middle and upper classes have not in the past taken readily to industrial occupations. The instruction itself has not escaped the over-academic atmosphere which characterises education generally in India nor has it been linked up closely enough with the actual conditions obtaining in works and factories. What it is fashionable to call a vicious circle has been described by Mr. Abbott in the following words :—

“ No country can initiate and carry on industries on a large scale, unless it has an adequate supply of men specially trained for the direction and management of large industrial concerns as well as of others qualified for the minor but very important supervisory posts in them. On the other hand it cannot be expected that capable and ambitious men will devote themselves to acquiring this special knowledge and skill unless they see a reasonable prospect of exercising it and gaining a decent livelihood thereby.”

* Report of the Consultative Committee on Secondary Education with special reference to Grammar Schools and Technical High Schools (1939).

The experience of the war, however, has already led to a number of salutary changes ; it has compelled a large expansion of industry and created a greatly increased demand for technicians of all grades, while at the same time the urgent need for skilled and semi-skilled workers had led to almost every technical institution in the country becoming a centre for Technical Training Schemes. Many young men, who would not otherwise have embarked on a technical career, have been recruited under these schemes and the prejudice against industrial employment has been steadily breaking down. This process is likely to be accelerated when Technical High Schools become an established part of a selective High School system. The ground is, therefore, being rapidly prepared for developments on practical and up-to-date lines but before any attempt is made to forecast the nature and scope of these developments or the precise lines which they should follow, it is necessary to define in relation to the requirements of a modern community the function of technical instruction, including the cognate subjects of education in Commerce and in Art as applied to Industry and Commerce.

3. The conception of the function of technical education, as regards both its aim and its content, has been considerably revised and enlarged in Western countries during recent years. Consequently it is important to emphasise from the outset that any scheme for the development of technical instruction as an integral part of a national system must have a two-fold character. It must both form a link between education and industry and it must at the same time receive quite separate consideration as a form of mental training which is especially suited to certain types of intelligence, irrespective of their future occupations.

The primary function of technical instruction remains and is likely to remain that of satisfying the needs of industry and commerce for (a) skilled craftsmen, (b) intelligent foremen and executives, and (c) research workers. In Western countries, however, of late years the content of a technical curriculum has been steadily widening, due on the one hand to increased demands on the part of industry, created not only by accentuated competition but also by the emergence of entirely new industries and on the other hand to a somewhat tardy recognition on the part of those responsible that technical education, if it is to be really fertile, should include the study of design and distribution as well as the actual processes of manufacture. The industrial product of today to command a market must do its work efficiently, must be attractive to the purchaser and must pass easily and cheaply from the maker to the consumer.

Moreover, the changes which are affecting the character of what is produced are also determining the training of those engaged in production. The ranks of the skilled craftsmen, depleted by the advent of the machine and mass production, are being reinforced by the makers and menders of machines and machine tools. Training in precision work has already acquired an importance out of all proportion to the number of men so employed. New problems, again, both human and material, call for more sympathy, more imagination and a deeper insight into the processes they control from those placed in positions of authority. In his turn the research worker has not merely to concern himself with improvements along established lines ; it is also his business now-a-days to explore how a dying industry may be revived or a new one created. It has been assumed, perhaps too readily during the last fifty years, even by those who for social reasons deplore their extinction most keenly, that the small business and the cottage industry are bound to be eliminated by the large scale factory. Modern methods of distribution and marketing, however, now give grounds for hope that even in highly industrialised countries the small producer may survive and prosper alongside of his larger rival.

The obvious lesson implicit in these changes is that technical instruction today must be a wider and more liberal form of training than it has been in the past ; it must comprehend the scientific principles underlying the processes of manufacture as well as the processes themselves ; it must link up the sciences of production and business organisation with the arts of design and salesmanship. It must take cognisance also of social science in relation to the effect of industrial development on the life of a previously non-industrial community and it cannot even neglect the provision of purely cultural and recreational facilities as an antidote against mental and moral stagnation for those workers who are destined to remain the semi-skilled servants of the machine.

4. At the same time contributing towards the same enlarged conception there is a secondary function of technical instruction, the importance of which is being increasingly recognised abroad and has received striking emphasis in the recent report of the Consultative Committee of the English Board of Education (the Spens' Report). So-called technical subjects have been found to be capable of providing an all-round education or culture as distinct from a vocational training for the many people, not necessarily by any means the less intelligent, whose mental faculties are more actively stimulated and more fully satisfied by practical than by academic studies. In this sense the technical school or college has a valuable contribution to make towards the introduction of greater variety into education at its higher stages and towards satisfying the need of industry for a reasonable share of the best brains of the community, which under the influence of the conventional high school seek professional occupations and too often find unemployment. Further, it may provide many people who were not suited for or were prevented by the economic exigencies of life from taking a university course of the ordinary type, with knowledge of the things necessary to the fuller discharge of their duties as citizens or the more profitable employment of their leisure.

5. While the general influences affecting the development of technical education, which have been outlined above, have been felt most strongly hitherto in countries remote from India in distance, in natural resources and in the social and economic conditions under which the great mass of their people live, their practical bearing on the future trend of development in this country can hardly be doubted. If the fillip which the war has given to industrial development is to be maintained and consolidated, it is difficult to think of any country where a real partnership between education and industry is more essential or where it is more important to help the small business or the cottage industry, to increase the supply of skilled craftsmen and competent executives, to convert abundant raw materials to the service of the country which produces them and above all to check the flow of potentially creative intelligence through academic channels into the slough of unemployment.

6. Considered from the point of view of the students, technical instruction will be either pre-employment or post-employment, that is, it will either be directed to giving young people not yet at work a preliminary training which will prepare them for entry into industrial or commercial occupations or it will afford opportunities to those already in employment for increasing their skill as craftsmen, for fitting themselves to occupy positions of greater responsibility or for improving their all-round equipment as citizens as well as workers.

The size of the area to be served and the extent and nature of its industrial development will determine whether such instruction should be provided in one institution or in several. If in several, then similar considerations will indicate whether these institutions should each serve one industry or group of industries or whether there should be a central institution at which the more advanced work in all branches

should be concentrated, with ancillary schools, conveniently distributed, which will relieve it of the more elementary work and feed it in turn with suitably prepared students. The question of monotronics *versus* polytechnics has been a controversial issue over a considerable period but the polytechnic, wherever practicable and subject to certain exceptions to be mentioned below, has a strong balance of educational, industrial and economic argument in its favour. It is indeed hardly necessary to elaborate the case for concentrating provision for technical instruction, and particularly the more advanced branches of it, under one roof. There is in the first place the factor of cost. Technical instruction is necessarily expensive, owing among other reasons to the large amount of practical work involved and the cost of the plant and apparatus required. Secondly, there is the importance of economising teaching power, since competent instructors in many of the more advanced technical subjects are always difficult to obtain. A third argument for centralisation arises from the fact that many technological courses overlap to a certain extent and in a large institution the same workshop or laboratory may be used by students taking different courses. The last but by no means the least important consideration is the benefit students derive from being brought into contact with others engaged in different occupations and studying different subjects.

The monotronic is to be preferred only where an industry is highly localised, or where its needs are so complicated or peculiar that it is difficult to satisfy them in the same building as those of other industries or where the material to be dealt with, as for instance in tanning, makes it an uncomfortable neighbour.

Accommodation should be provided in the polytechnic, whether it has ancillary institutions or not, for (i) a full time day school (Technical High School) for boys of the normal high school age and type, whose training will be based on the assumption that they may rise ultimately to positions of responsibility, (ii) part-time classes preferably in the day but when necessary in the evening both for younger employees (including apprentices) and for older workers, and (iii) classes, full-time or part-time, for more advanced students and for research workers. Finally there should be provision for adult education of a non-vocational kind.

7. The next step is to apply what has been said above about the general aim and content of technical (including commercial and art) instruction to the post-war conditions of India, so far as it is possible to forecast them. It is clear that the amount, type and location of facilities for technical education will largely be determined by the requirements of industry and commerce but it is by no means clear at this stage what these requirements are going to be. It is true that war time production has broken the vicious circle in which industrial development in India has been enclosed in the past. New industries are now being established and the nucleus of a supply of labour for them has been created.

The first task will be to recondition for absorption in civil industry the large number of technicians who have been through an intensive short course of training for war production. It is impossible to say how many of these by the end of the war will have reached the standard of skill and adaptability which will enable them to fit easily into the post-war system. This applies both to the men enlisted in the technical branches of the Fighting Services and those employed in civil factories. It is, however, satisfactory to know that Labour Department's Technical Training Centres will be kept going for 18 months after the war in order to complete the training of these workers where required.

Though it is impossible to say how many technicians will be required in each main employment category in industry and commerce, it is possible to prescribe the categories themselves and the sort of training their members will require. In the highest category there will be the chief executives as well as the research workers

of the future. These will normally have their preliminary training in a Technical High School and will then pass to the Technological Department of a University or to a full-time course of the National Diploma type in a Technical Institution. This category will necessarily be a small one and it should not require much extra provision but in view of its importance admission to it should be the outcome of a very strict process of selection. Reference should be made to the report of the Board's Committee on Technical Education for a discussion of the question of the relationship between the technological courses of Universities and those conducted in Senior Technical Institutions, which may or may not be affiliated to or connected with Universities.

The next category will contain the minor executives, foremen, charge hands etc., a very important class, if only in view of the difficulty which Western countries have experienced in recruiting the right kind of people. It is the main aim of the Technical High School to satisfy this need but the Technical High School pupil on completing the course there will need to continue his technical education either by taking a National Diploma or Certificate Course or by attending part-time classes of a fairly advanced description.

Mr. Abbott has emphasised again and again, and few will disagree with him, the need for concentrating on what may be called the supervisory grade. It is this grade, intermediate between the management and the operatives, "which ought to have sufficient knowledge and intelligence to understand the instructions of the former and sufficient powers of expression to communicate and interpret them to the latter. At the same time they should have sufficient practical skill to earn the respect and confidence of the operatives whose work they direct, control and supervise."

The third category will comprise the skilled craftsmen, most of whom will not aspire to executive positions. These may be recruited from *ex*-Technical High School pupils but as a rule after passing through the Senior Basic Schools, where they will have mastered the rudiments of craft work, they will go on to Junior Technical, Trade or Industrial Schools for a further two or three years' full-time course.

Below these three categories will come the great mass of semi-skilled and unskilled labour. These will not as a rule receive any special technical training before entering employment apart from the craft work they will have done in the Senior Basic (Middle) School. The fact must not be overlooked that boys and girls who have passed through the basic schools will be much better prepared to enter industrial occupations than most of those who now leave Primary and Middle Schools. They should at least know something of the use of tools and the properties of woods and metals. It will, however, be very important to afford them facilities both for continuing their general education and for improving their skill, so that the best of them may ultimately ascend to the skilled class.

It should be made abundantly clear that the rough classification given above does not presuppose a rigidly horizontal organisation of post-war industry. If the necessary incentives are to be provided, promotion must remain open from the bottom to the top and this will be particularly important until the selective system of higher education has been firmly established. Nor must the needs of small businesses or rural industries be forgotten. For the latter separate departments in suitably located Technical Institutions should be provided, where local crafts can be taught and practised under appropriate conditions.

8. While the foregoing refers mainly to technical education, it also covers the general provision to be made for commercial and art students. In regard to commercial education it may be possible to reduce those concerned to two main groups

(a) those who will transact business on an important scale or perform professional functions such as banking, accountancy etc. and (b) those engaged in recording the transactions of Group (a). According to Mr. Abbott, Group (a) require mainly a training in imagination, initiative, administration and leadership while Group (b) need training in the ordinary office arts, *e.g.*, shorthand, typing, book-keeping, commercial practice, etc. as well as in alertness, accuracy and a sense of responsibility. It is possible that Mr. Abbott somewhat underestimates the need for expert knowledge in those controlling the great processes of salesmanship and distribution. With regard to Art as applied to Industrial and Commercial requirements he gives voice to a well justified criticism when he says " Nothing has disappointed us more than the general neglect of the teaching of Art ". Indian manufacturers will be very wise to devote far greater attention to the artistic qualities of goods produced. One of the great advantages of a Polytechnic is that it brings those engaged in manufacture into immediate contact with those studying design and distribution.

9. In the absence of any reliable data which would indicate the probable number of workers required in each of the three categories which will need technical instruction, purely hypothetical figures must be taken for the purpose of a preliminary estimate of the cost of an adequate system of Technical Education.

So far as potential research workers and aspirants to the most senior executive grades are concerned, it may be assumed that many of these will pass through the technological degree courses and provision has been made for them under the heading of Universities. It may be well, however, to emphasise at this point the necessity for ensuring that in the University technological departments ample facilities are provided for research directed towards the solution of practical industrial problems and that the need for testing the results of laboratory experiments on a commercial scale is not overlooked. It is not less important that technological degree courses generally should be made more practical than they are at present and that the students should spend a considerable part of their time throughout the course, and not merely at the end of it in works and factories. The same applies to commercial students. A further desideratum is that as many students as possible, and particularly those likely to become technical instructors, should be afforded facilities both for studying abroad and for obtaining first-hand experience of foreign industrial and business methods. In addition to those who proceed to Universities, it may be taken for granted that a considerable and increasing number of the would be entrants to the two higher categories of industrial and commercial work will on leaving Technical High Schools seek to qualify for higher posts by taking full-time courses of the National Diploma type in Technical Institutions or advanced part-time courses of equivalent standard, Provision is accordingly suggested for 75,000 places in Technical Institutions apart from Universities, which will cater for an intake of 25,000 students annually or approximately 4 per cent. of the boys leaving High Schools every year. The cost per place is estimated at Rs. 500 and this should leave a margin to cover the comparatively small number who may be expected to remain another two years for an Advanced National Diploma course.

For the third category, the skilled artisan class, recruits will mainly be drawn from those who have completed their course at a Senior Basic School and pass on to Junior Technical, Trade or Industrial Schools, though there should also be a steady flow from Technical High Schools as the number of these increases. In view of the importance which will be attached to craft work in the Senior Basic School, it is reasonable to expect that after two years in a Junior Technical, Trade or Industrial School boys will have attained to a standard of skill sufficient to warrant their

admission to skilled trades as apprentices or learners. Pending the full establishment of Senior Basic Schools, this training may require three years. On the basis, however, of a normal two years course, it is proposed to provide 2 lakhs of places in Junior Technical, Trade and Industrial Schools, which will accommodate about 4 per cent. of the boys leaving Senior Basic Schools each year. The cost per place is estimated at Rs. 150.

10. Apart from the recommendations set out above which concern the provision of full-time instruction, it is reasonable to assume that as industrial development takes place, whether in the form of large scale or village industries, an increasing number of workers will continue their technical education on a part-time basis by attending classes either in the day or the evening. The drawbacks to evening classes are well-known and owing to climatic and other conditions they are likely to be greater in India than in Western countries. Nevertheless, it is fair to record that many people who today occupy positions of responsibility in Industry all over the world owe their success to attendance at evening classes. Those who give up part of their leisure after a day's work in order to improve their qualifications at any rate suggest that they possess the qualities of grit and determination that make for success in life. Part-time day classes, or the sandwich system, which is an extension of the same idea, on the other hand constitute a factor of great importance in any modern scheme for technical education. Their main advantages may be summarised as follows:—

(1) They minimise fatigue on the part of students.

(2) They bring the efficiency of the instruction under the criticism of students who have some first hand knowledge of the requirements of modern industry.

(3) They enlist the direct interest of employers inasmuch as they are releasing and, it is to be hoped, paying their employees to undergo instruction during their ordinary working hours and consequently expect to derive some practical benefit from the sacrifice they are making.

In spite of some initial opposition progressive employers in Great Britain have become convinced of the benefits of the part-time day system not only to their employees but also to themselves, and it is now the practice of many firms to release their younger employees to attend technical classes on two half days or one full day a week at the expense of the firm, which pays not merely the class fees but also the employees' wages during the time spent under instruction. The sandwich system, which is most suitable for the higher grades of workers, means that the employee instead of attending classes for a day or two half days a week, divides the year between the works and attendance at a Technical Institution. The adoption of such a system would be of particular value in India, as it would help to counteract the present over-academic tendency of too many technical courses, whereby a student may spend several years under instruction without obtaining any first-hand experience of actual factory conditions. It is to be hoped that Indian employers will quickly recognise the value of the part-time day system; if not, it may be necessary to stimulate their interest by levying a special tax for the further education of their employees, as was done in France after the last war, on those employers who do not provide the necessary facilities themselves.

11. In addition to the provision of facilities for training skilled artisans and the superior grades, an up-to-date system of Technical Education must also cater for those in the lower grades who wish to improve their equipment as workers and as citizens. The conception of a modern Polytechnic as a People's University has already been referred to and this idea is capable of very wide development in all thickly populated districts.

At this stage the sphere of Technical Education will overlap that of Adult Education, which will also be engaged in the provision of vocational classes. Some demarcation will arise from the fact that Technical Institutions, apart from Agricultural Institutions, which should really be regarded as a part of Technical Education, will normally be found only in urban or thickly populated districts, whereas Adult Education should cover the whole country. At the same time, as the Adult Education Committee has pointed out, it is neither possible nor desirable, especially in India, to draw too strict a line between the spheres of Technical and Adult Education. It will be the business of the responsible administrative authority to prevent unnecessary overlapping.

It is quite impossible to forecast the extent of the demand for part-time classes or to estimate their cost. The provision of such facilities in other countries has proved so remunerative in the widest sense that it is justifiable to lay down the general rule that where any reasonable demand arises, every effort should be made to satisfy it. Provision has been made for an annual expenditure of Rs. 3,00 lakhs on part-time technical classes in addition to any provision that may be made for such classes under the head of Adult Education, but it must be emphasised that this is no more than a token figure. This brings the estimate of the total annual gross cost of Technical, Commercial and Art Education to Rs. 9,75 lakhs. Expenditure on Technical High Schools and the Technological Departments of Universities is provided for under High Schools and Universities respectively. The uncertainty as to the extent of the development in Technical Education in India after the war adds to the normal difficulty of arriving at any firm estimate in this branch of education. The same applies to the question of fee and other income. On the one hand the bulk of those undergoing full-time instruction will not belong to the richer sections of the community; on the other hand many of the students attending part-time classes will be in employment and may be expected to pay a reasonable fee. Here also as in other branches of Higher Education, liberal provision must be made for the remission of fees in the interest of poor students. Maintenance allowances will also be necessary, if not on the same scale as in the case of Universities. It may be assumed that the total annual income from fees and other sources *e.g.* trade tests, or expert advice for firms, will not exceed Rs. 1,75 lakhs.

12. The teacher in Technical, Commercial and Art Institutions will be no less important than the teacher in other branches of education. To create an adequate supply of such teachers will be still more difficult because of the direct competition of Industry and Commerce and the greater inducements they are in a position to offer to skilled workers. This fact must be borne in mind in determining the remuneration and conditions of service likely to attract efficient instructors. The Board have adopted the following scales recommended by their Technical Education Committee and hope they will be successful in attracting enough teachers of the requisite calibre.

(a) Teachers of general subjects in Technical High Schools—same grades of pay as in ordinary High Schools, with upto five increments for suitable industrial or commercial experience.

(b) Teachers of technical subjects :—

(i) Workshop or Laboratory Assistants—Rs. 50—1—75 p. m.

(ii) Teachers Class III—Rs. 75—5—150 p. m.

(iii) Teachers Class II—Rs. 175—10—325 p. m.

(iv) Teachers Class I (including Heads of Departments)—Rs. 400—25—1,000 p. m.

(v) Principals—Salary according to nature and size of institution.

For Teachers in Classes II and III an allowance of upto 50 per cent. of their salary may be made to meet higher cost of living or other special circumstances.

Recruitment and training on the other hand present a smaller administrative problem than in the case of other branches of education. No special training schools or colleges are required. The technical or commercial teacher should have had first hand experience in industry and commerce and should then receive his professional training in a technical institution.

13. While the extent and character of the post-war demand for Technical Education must remain problematical, it is possible to make definite proposals as to the lines on which it should be organised. There can be little doubt that development hitherto has suffered from the lack of any unified direction either in the country as a whole or in individual Provinces. In some areas technical education is regarded as the responsibility of the Education Department but in most cases the control is entrusted either to Labour or Commerce or Industries Departments. In at least one Province some technical institutions are under the Education Department while others are controlled by one or more of the other Departments mentioned above. It is obvious that such an arrangement cannot make either for efficiency or economy. Technical instruction, particularly in the more advanced stages, is expensive and the necessity for avoiding overlapping or dispersion of effort will be apparent. It is equally clear that this branch of education should be closely linked up with industry and commerce, whose needs it is designed to serve. Recognition of this no doubt led to the control of technical education being given to the Departments which deal directly with industry and commerce. In actual practice, however, the object in view has not been achieved.

For the reasons referred to earlier in this chapter, technical instruction regarded as a means of general education as well as a preparation for certain types of employment is acquiring a place of ever-increasing importance in the educational system. Since its function is primarily educative, its direction should be in the hands of those responsible for education as a whole. As Mr. Abbott points out, "In nearly every great industrial country technical education and general education are administered by the same department of State, *i.e.*, the Ministry of Education". The closest contact must of course be established and maintained with Industry and Commerce and since they will increasingly depend on the products of technical institutions, it is in their interest to become willing cooperators as well as constructive critics of the instruction given therein.

14. While, therefore, technical education should be in the hands of the education authorities, there is reason to doubt whether under modern conditions it can be effectively organised on a Provincial basis. If there is to be the essential contact with industry, technical institutions should be located as near to industrial areas as possible. The result of this will be that some Provinces will contain many more technical institutions than others and it is unfair that they should be saddled with a disproportionate share of what is clearly a national burden. At the same time there is an even more serious consideration. While for economic and other reasons industry and commerce and the technical institutions which serve them, may be concentrated in certain areas, it is clearly inequitable and contrary to the national interest that entry to industrial occupations should be mainly confined to students who live in or near the areas in question. Suitable students who desire to qualify as technicians should have the opportunity to do so, wherever they may live. Under a provincial system, however, experience of the past suggests—and there is no valid reason for anticipating a change of attitude in the future—that priority in regard to admission will certainly be given to students from the Province providing the institution, even if those from outside are not actually excluded. Moreover, if there is likely to be substantial industrial development in the post-war period, even though the precise form or forms it may take

cannot at present be foreseen, the need for planning on a national basis becomes still more obvious. To stimulate, coordinate and control the provision of the educational facilities, which such a development as well as existing industry will need, there must be an All-India body in supreme charge. In a service which calls for so many experts it is difficult to expect each Province to maintain a staff capable of inspecting and advising Technical Institutions of the first rank.

It is satisfactory to record that an Association of Principals of Technical Institutions in India has recently been formed with the object of formulating a national policy in technical education and establishing All-India standards for courses in the major branches in instruction. The A. P. T. I. (India) is, however, hardly the body to exercise the final administrative control over technical education, though it should be given an important voice in it. It is accordingly suggested that a National Council for Technical Education should be established. It should comprise nominees of the Central Advisory Board of Education, on which all Provinces are represented, of the A. P. T. I. (India), of the Departments of Government, Central and Provincial, directly concerned with industrial problems, of the University Grants Committee proposed in another chapter and the Inter-University Board as well as of recognised Associations of Employers and Employees. This Council will control policy in Technical Education generally and deal with all technical institutions except the Technological Departments of Universities, and Technical High Schools and Junior Technical Schools which, since they have a purely educational as well as a pre-vocational function, should remain part of the ordinary Provincial system. It is a corollary to this proposal that the whole cost of Technical Education, apart from the exceptions mentioned above, should be borne by the Central Government.

15. Reference may be made before concluding this chapter to two very important branches of education which receive very little notice in this report. These are (a) Agricultural Education and (b) Day Continuation Schools. With regard to the former it is logically a part, and a most important part, of Technical Education. In this country with its vast agricultural population, as Senior Basic Schools and High Schools with an agricultural bias become more widely spread, the more advanced stages of Agricultural Education should be closely linked up with the lower, and Agricultural Colleges of every type should be regarded as essential parts of the top educational storey and should come under the general control of the Education Authorities. The Board have decided to set up a Committee to explore this question. With regard to the latter the importance of part-time day classes for the younger employees in this country has been stressed in this chapter. The value of Day Continuation Schools for all boys and girls between the age at which compulsory full-time education finishes and 18—20 has usually been argued on the ground of their contribution towards general, moral, mental and physical well-being during a crucial phase in development rather than any direct contribution towards industrial efficiency. The practical difficulties which have held up their compulsory introduction in England are still greater in India and it may be well to defer establishing them until a universal system of Basic Education is fully in operation.

16. The main conclusions contained in the report of the Technical Education Committee are set out below :—

(1) In view of the recent expansion of industry and the likelihood of further development after the war it is necessary to plan immediately a comprehensive system of technical education at all stages.

(2) The function of Technical education may be described as two-fold, (a) to meet the needs of industry and commerce for properly trained workers of all grades and

(b) to provide a suitable form of education for those boys and girls whose natural abilities can best be developed by instruction on practical lines.

(3) Technical education should be regarded as an integral part of any educational system and as in no way inferior to education of the academic type.

(4) Education from the earliest stages should be given a more practical character, and the curriculum should aim at making boys and girls familiar with practical as well as academic subjects.

(5) Technical education must include commercial education and art in relation to industry.

(6) Agricultural education should be regarded as an essential branch of technical education. Senior Basic (Middle) as well as High Schools in rural areas should have an agricultural bias.

(7) In view of the great importance of agricultural education for this country a special committee of educational and agricultural experts should be set up to consider the subject fully.

(8) In order to provide suitable instruction and training for the different types of workers required there should be the following main types of technical institutions :--

(a) Junior Technical or Industrial or Trade Schools,

(b) Technical High Schools,

(c) Senior Technical Institutions.

(a) and (b) will normally provide full-time instruction preparatory to employment, while (c) will also provide part-time instruction for those already in employment.

(9) The type and duration of part-time instruction should be determined in consultation with employers and according to the needs of the locality. It is desirable that part-time classes should be held during the day rather than in the evening.

(10) Wherever circumstances permit, polytechnics are to be preferred to mono-technics.

(11) The following courses of studies should be provided in technical institutions :

(i) a two-year full-time course in Junior Technical or Industrial or Trade Schools, to which pupils should be admitted on leaving the Senior Basic (Middle) School at the age of about fourteen.

(ii) a six-year full-time course in Technical High Schools, to which selected pupils will be admitted on completing the Primary (Junior Basic) stage at about the age of eleven. The first three years of the course will be mainly devoted to general subjects.

(iii) a three-year full-time Diploma course, to which students will be admitted after passing the final examination of a Technical High School or an equivalent examination.

(iv) a two-year full-time Advanced Diploma course for those who have passed the above examination.

(v) a three-year part-time Certificate course in Technical High Schools for students already in employment,

(vi) a two-year part-time Advanced Certificate course for those who have passed the above examination, and

(vii) classes in individual arts, crafts and other subjects related to Industry and Commerce for which there may be a sufficient demand.

(12) There should be only one external examination at the end of a course. Other examinations should be conducted internally.

(13) All teachers in technical institutions should have some first-hand experience of some branch of industry or commerce.

(14) (a) Teachers of general subjects in Technical High Schools should receive the same grades of pay as teachers in ordinary High Schools. They may be granted up to five increments for appropriate industrial or commercial experience after the age of twenty.

(b) Teachers of technical subjects should receive the following scales of salaries :—

(i) Workshop or Laboratory Assistants—Rs. 50—1—75 p. m. The initial salary should be fixed according to experience.

(ii) Teachers Class III—Rs. 75—5—150 p. m.

(iii) Teachers Class II—Rs. 175—10—325 p. m.

(iv) Teachers Class I (including Heads of Deptts.)—Rs. 400—25—1,000 p. m.

(v) Principals—Salary according to the nature and size of the institution.

Teachers in Classes II and III may in certain areas be given an allowance of up to 50 per cent. to meet the higher cost of living or other special circumstances. There should also be a limited number of posts of special responsibility carrying an allowance of Rs. 25 p.m. These will normally be limited to teachers in Class II and Class III.

(15) All teachers of technical subjects should be encouraged to keep in touch with the appropriate branch of industry or commerce and, with this object in view, they should be permitted to undertake consulting practice or commissions, subject to approved conditions designed to prevent such private work interfering with the efficient discharge of their duties as teachers.

(16) There should be an adequate system of scholarships and maintenance allowances designed to ensure that no one having the necessary aptitude and ability should be prevented by lack of means from pursuing a course in technical institutions. Hostels should be provided wherever necessary.

(17) Technical institutions should be located in or near industrial and commercial areas, but students from other areas should have an equal opportunity of admission to those institutions. To ensure this it is necessary that technical education should be organised on an all-India basis.

(18) Technical High Schools and Junior Technical, Trade or Industrial Schools should be administered by Provincial Governments, but all technical education beyond this stage other than that given in the technological departments of Universities should be placed under a central controlling body which would have on it representatives of all the interests concerned. This body should be set up as soon as possible.

(19) The formation of the A. P. T. I. (I) is a most welcome step in the direction of co-ordinating technical instruction in the country. It should be given adequate representation on the central controlling body.

(20) It is essential that subject to the recommendation in (18) above, the administration of all technical education should be under the Education Department of the Central or Provincial Government or State, as the case may be. There should be a separate inspectorial staff for this purpose. The Education Department should maintain close contact with the other Departments concerned with Industry and Commerce.

(21) As a corollary to technical education in its higher stages being administered by a central body, the financial responsibility will have to be accepted by the Central Government.

17. Summary of the main conclusions in this chapter :—

(a) In view of the prospective needs of post-war industry and commerce for skilled technicians, and in order to cater for the aptitudes of those who will derive greater benefit from a practical course, the establishment of an efficient system of Technical Education at all stages, on the lines set out in the report of the Technical Education Committee, is a matter of great urgency.

(b) Due regard should be had to the recommendations of the Abbott-Wood Report in respect of the scope and content of Technical instruction.

(c) The estimated gross annual cost of the proposals contained in this chapter will be approximately Rs. 10 crores and the net cost Rs. 8 crores.

CHAPTER VI

ADULT EDUCATION

1. In a country with a population of which over 85 per cent. is illiterate, the cause of Adult Education needs no special pleading. That the public has become to some extent sensible of the position has been made evident by the enthusiasm evoked by recent literacy campaigns. Developments in Adult Education, confined as a rule mainly to the elimination of illiteracy, formed a prominent feature of the educational programmes of some of the popular Governments. In December 1938 the Board appointed a special committee to consider the question of adult education. The main conclusions and recommendations of the Committee, together with the Board's decisions thereon, are given at the end of this chapter, and it is on those conclusions and recommendations that the argument of this chapter is mainly based. For the sake of brevity this committee is referred to later simply as the Adult Education Committee.

2. Adult Education has sometimes been described as a compensatory measure in the sense that it is an attempt to give adults a belated opportunity to make up for the opportunities which were denied to them in their youth. But its proper function is a broader and deeper one. It should aim at giving effect to the democratic principle of continuous, lifelong and complete education for all according to their ability to profit by it. In other words, the role of adult education is to make every possible member of a State an effective and efficient citizen and thus to give reality to the ideal of democracy. Adult education in this sense is still far from realization even in those countries where it has made the greatest progress, but the full objective continues to gain increasing recognition. In India so far the general attitude has been to regard adult education as connoting adult literacy. The reason is obvious, for the problem in this country is vastly different from what it is in Western countries. A child must learn to walk before he can run; an adult must be literate before he can hope to derive any benefit from facilities for education in the wider sense. For this reason the Adult Education Committee recognised that the main emphasis in this country must for some time to come be on literacy, although from the very beginning some provision must be made for adult education proper, so that those made literate may have an inducement as well as an opportunity to pursue their studies.

3. Quite apart from its intrinsic value, adult education is also needed as a powerful auxiliary to primary education in accelerating the process of making the country literate. It is true that the only permanent solution of the problem of illiteracy is universal primary education. Nevertheless, whether or not "the existence of a large number of illiterate parents, who attach no value to literacy in others, including their own children, will", as the Adult Education Committee remarks, "undoubtedly prove one of the greatest obstacles to the introduction of a compulsory system of primary education", there can be no doubt that literate parents will be likely to make the progress of primary education more rapid as well as more effective. But, as pointed out above, if parents are to fill this role properly, they must be provided with facilities not only for a bare acquaintance with the three R's but also for further and continuous instruction according to their capacities, so that they may come to appreciate the value of education and what it really means.

4. It is also important that the further education to be provided for adults should be of such a nature as will not only make them more useful members of society but will also help them in some measure to improve their economic position. Only in this way will the average illiterate acquire respect for education and consequently a

desire for the education of his children. Adult education must, therefore, be practical as well as cultural ; it should also be closely related to the student's daily life and work. It is true that in Western countries the tendency has been to keep adult education separate from technical, commercial and art education, but even there technical and other vocational institutions have of late been giving cultural education an increasingly important place in their schemes of instruction. In India, as things are, it is all the more necessary to secure a close association of cultural and technical education and the Adult Education Committee " welcome on general grounds this tendency to co-ordinate all forms of adult instruction and believe that it is neither necessary nor expedient in India, and above all the Indian village, to define too strictly the sphere of adult education ". It is therefore contemplated that adult education centres will not merely provide for the teaching of the more academic subjects but will also have vocational classes for those who may not, at least to begin with, be attracted by the cultural side of adult instruction and may wish to learn some craft.

5. To return for the moment to the problem of literacy, it may be asked what precisely is the standard to be aimed at. Is it ability merely to sign one's name and to read print with or without effort ? Is it a rudimentary acquaintance with the three R's ? Or is it something more ? Literacy is a means and not an end in itself. The end is that whole education of the individual's personality which will develop to the highest degree his physical, intellectual and moral faculties, raise him to the full stature of a man and transform him into a conscious and useful member of society. Mere literacy does promote this end in the sense that it is an essential first step towards it, but it is only a first step. The literate who is literate and no more stands merely at the threshold of that full development of personality which all should seek to attain. This postulates a standard of literacy which is undoubtedly high but not higher than is necessary, if literacy is to be of permanent value both to the individual and to the community to which he belongs. Judged by this standard it must be admitted that the achievements of mass literacy campaigns both in this and other countries, in spite of the enthusiasm they evoked, must to a large extent be regarded as a waste of human effort. Urgent, therefore, as the need is to eliminate illiteracy as quickly and economically as possible, the supreme consideration must be that the work should be lasting.

If, therefore, the object is to make adults not merely literate but permanently literate and at the same time sufficiently literate to be capable as well as desirous of benefiting from further education, the literacy course must be a thorough one. Even in the case of a naturally intelligent student such a course cannot be expected to produce tangible results in less than a hundred hours, for to the teaching of the three R's must be added some elementary instruction related to the student's vocation in life as well as some general knowledge of the rudiments of civics, economics, history, geography and hygiene. It should cover not less than a full year, as it will not be reasonable to expect grown-up students to attend classes more than four times a week and their occupations in many cases will not allow them to attend during more than six months in the year.

6. It is not easy to fix any age range for adult education ; such age limits as have been fixed in the various provinces in this country as well as in other countries vary considerably. For instance, the age range is 10—40 in Bengal (as recommended by the Bengal Committee on Adult Education, 1938), 15—40 in Bihar, 14—50 in Bombay (as recommended by the Bombay Adult Education Committee, 1938) and 16—50 in China, while the Central Advisory Board of Education felt that boys under the age of twelve should not be admitted to an adult centre. In determining what age

limits, if any, are desirable the following points may be taken into consideration :—

(a) It is wasteful to admit into a primary school a boy or a girl who cannot stay there for at least four years. This would necessarily mean that some alternative arrangements must be made for those above the age of ten when compulsory education is introduced.

(b) In view of the normal expectation of life in this country and the mental development of illiterates, particularly in the villages, no useful purpose would as a rule be served by trying to educate persons over forty years of age. These considerations suggest that the normal age range of adult education should be 10 *plus*—40.

It should, however, be emphasised, as recommended by the Adult Education Committee, that as far as possible, separate classes should be organised, preferably during the day time, for boys between ten and sixteen years, as it is undesirable from many points of view to mix boys and men in adult classes. It would also be preferable to have separate classes for young girls, but the objection to mixing young girls and women is not so serious as in the case of boys and men and may be easily out-weighed by the factor of resources available and other practical considerations.

7. Although, as has been said above, the last few years have witnessed a fairly wide public awakening in regard to adult literacy, the position on the whole cannot be described as anything but extremely unsatisfactory. Even if the rather generous provisional census estimates* are accepted and literacy is taken to mean no more than ability to read and write, the percentage of literacy above the age of five is found to be only 14·6 per cent. The total population of British India within the age range 10—40 in June 1940, according to the Annual Report of the Public Health Commissioner with the Government of India for that year, was estimated to be 14,86,45,389†. Out of these 14·6 per cent. *i.e.*, 2,17,02,227 are considered to be literate. The number of adults to be made literate is therefore 12,69,43,162 or, in round figures, 12,70,00,000. The last decade saw the biggest jump in literacy figures, from 8·3 per cent. to 14·6 per cent. If this rate of progress is maintained and no other help is given, it will take nearly 140 years to reach the 100 per cent. figure. Even when universal primary education has become the rule, unless special measures are taken, illiteracy will only be eliminated after all the illiterates then over ten years' age are dead. In view of the urgent importance of adult education, not only in the interest of the present illiterates but also as an essential adjunct to any system of compulsory education, the problem of liquidating illiteracy and establishing effective arrangements for adult education must be tackled as quickly as possible. What can be done, however, is necessarily limited by the resources available. Even if all the money required were immediately forthcoming, it would still be necessary to find suitable teachers and organisers, of whom there are comparatively few available at present. Once, however, a comprehensive system of national education has been inaugurated, it might be feasible to complete the work of adult literacy within twenty-five years, even after taking into account the fact that the first five years will have to be devoted mainly to preparatory work, including the setting up of an effective organisation for the training of teachers and that as literacy progresses, there must be a gradual shift over to the work of adult education proper.

In theory, therefore, the problem is to make literate within twenty-five years 12,70,00,000 persons and within the same period to organise a system of adult

* The 1941 Census authorities have not published any literacy figures but they prepared certain provisional estimates, and in the absence of more authoritative figures they have been used in this chapter.

† Exclusive of Baluchistan for which not even approximate figures are available.

education which will be a permanent part of the general educational system and will be in full operation from the twenty-sixth year onwards. In actual practice, however, the number of persons to be made literate will be smaller than estimated above, for a fairly large number of older persons will inevitably pass out of the 10—40 age range before it is possible to provide for them and others will die. On a rough calculation the anticipated decrease from these causes comes to about 3,65,00,000. This leaves 9,05,00,000 persons to be made literate.

8. In planning a detailed programme to give effect to the object stated above the first question to be considered is that of securing an adequate supply of teachers. There are three possible sources, professional teachers engaged in day schools, non-professional teachers who have received special training for adult work and volunteers. For the purposes of this scheme it is not proposed to take into account volunteer-teachers, as it is quite impossible to assess even their approximate numbers. Those that are forthcoming may be used for the work of adult education proper, for which no separate teaching staff is being provided, or they may be utilised for literacy work thus releasing a corresponding number of the other teachers for further education.

At present there are in all 5,18,018* teachers in Primary, Middle and High Schools. Out of these not more than about 1,50,000 can be expected to be available for adult education ; the rest may be either unsuitable or unwilling to take up the work. The number of non-professional teachers is not likely to be very large, if there is to be a careful selection and those selected are also required to undergo training. It is impossible to estimate the possible number with any degree of exactness, but probably it is never at any time likely to be more than fifty thousand. Even this number will have to be built up in stages, and during the first working year, *i.e.*, the sixth year of the programme, it will not be wise to count on more than 20,000, especially as they will first have to be trained. In the second year the number may rise to 23,000, in the third to 26,000 and so on until there are 50,000 such teachers in the sixteenth year.

It may be assumed that there will be in all 1,80,000 teachers to begin with in the sixth year. This number is made up of 1,50,000 out of the present number of school teachers, 20,000 non-professional teachers and 10,000 out of the additional teachers just leaving the training schools, who will be available in the sixth year*. Of these new teachers only 50 per cent. are taken as likely to be available. They will all have received some training in adult education as part of their normal course, but it would be over-optimistic to rely upon more than half of them taking up adult education work. The total number of teachers available for adult education work will thus increase every year by 13,000 through the addition of new school teachers and non-professional teachers, as shown in the statement in Appendix—Table E till the maximum number of 2,58,000 is reached in the twelfth year. It is not proposed to increase this number in subsequent years, as it should suffice for all ordinary purposes and will in fact be likely to be in excess of requirements once illiteracy is liquidated.

9. It cannot be too strongly emphasised that Adult Education, even in its simplest form, is not an easy business ; it demands a special and exacting technique. Enthusiasm and good intentions alone cannot make a good teacher, nor can the success of a teacher in a children's school be a guarantee of his fitness to teach adults. It is still more necessary than in the case of children that, in the words of the Adult Education Committee, " the teacher's manner should be stimulating and his matter interesting ". A high degree of tact, understanding and ability to inspire and lead is required of the teacher, for he has to deal not with a child, who is mentally raw

and receptive and who has compulsorily to attend school, but with a grown-up person who requires more stimulating and interesting instruction and who is likely to leave the class the moment he finds the lessons not worth while. It is, therefore, necessary to keep alive the interest of the students, to make the instruction practical and to relate it to their own activities and environments. Lastly, the personal factor is still more important in an adult school than in a school for children. The teacher is not a superior being on a pedestal but only another man or woman who happens to possess greater knowledge in certain matters. Relations between the teacher and his adult students must therefore be both close and cordial. It was with these considerations in mind that the Adult Education Committee recommended that in addition to inspectors and organisers, who should themselves be experts in adult education, a nucleus of specially trained teachers should be appointed, who will not only teach but will also assist in selecting, training and supervising other teachers.

With the same object of stimulating the interest of the adult student and investing instruction with an atmosphere of the practical and real, it is necessary to make the fullest possible use of visual and mechanical aids such as pictures, illustrations, artistic and other objects, the magic lantern, the cinema, the gramophone, the radio, etc. Dancing, particularly folk dancing, music, both vocal and instrumental, and drama will also be useful, not only as pleasant accomplishments in themselves as well as recreative activities but also as helping to attract and stimulate adult students.

10. It will seldom be necessary to provide separate buildings for adult education centres, though it is obviously essential that each centre should have a definite home of its own, even though classes may often be held out of doors. There should be no difficulty in obtaining the use of schools or other suitable premises in towns while in villages the Basic (Primary or Middle) School will offer an obvious solution. With the progress of universal education, plenty of accommodation will become available everywhere, but in the meantime, until suitable school buildings can be provided, accommodation for adult education centres may also be obtained in Local Board buildings, Health Centres, Rural Development Centres or hired buildings. Rural Development Centres are likely to be perhaps the most suitable in those provinces where the work of rural development has made good progress.

Perhaps the most important function of a literacy campaign is to provide numerous and adequate libraries, for a literate cannot remain literate, much less progress, unless he can have convenient access to suitable and interesting reading material. The Adult Education Committee, therefore, strongly urged that "every adult school should have a library of its own or be able to obtain free books of the right kind from a neighbouring library." Obviously a very large library system will be necessary in a country like India, but with a properly organised scheme of circulating libraries and exchange of books the cost need not be prohibitive. The libraries, together with instructional equipment etc., should be housed in the premises used as adult education centres.

11. The problem of adult education is so vast and public interest in it has of late been so markedly on the increase that it is natural to look for help to voluntary effort. A great deal has already been accomplished by public spirited individuals and organisations, and there is no doubt that their contribution under a national system of education will be even more considerable. Given the right type of organisation, there is a great deal of public energy which can be harnessed to useful work in many branches of social service. The problem of adult education as a whole,

however, is far too vast to be within the capacity of unaided voluntary effort, whatever its organisation, however effective its propaganda and howsoever willing and generous the public which supports it. The state must accept the primary responsibility for tackling the problem.

There are specific ways in which the help of the public-spirited can be enlisted. For instance, the great employers of labour, big commercial firms and other trade associations as well as the bigger landlords can, and some of them no doubt will, offer assistance in this work in many ways. Such help can perhaps more confidently be expected from the employers of labour and industrial organisations in view of the need for educated manual workers, which various authoritative bodies have repeatedly stressed. The Royal Commission on Labour in 1930 called pointed attention to the disastrous effect of the whole mass of industrial labour being illiterate, a state of affairs unknown in any other country of industrial importance. The same view was expressed again ten years later by the Bihar Labour Enquiry Committee and the Bombay Textile Labour Enquiry Committee. There will also be some social service organisations and public spirited individuals who will desire to work on their own. The state should welcome the voluntary services of such organisations and individuals and afford all possible aid, provided they are prepared to conform to the general principles of the national scheme and the standard of their instructional work does not fall short of the state standard. It is not, however, proposed to take into account, for purposes of estimating either the cost of the scheme or the time required, such voluntary assistance or service, as it is not possible to calculate even approximately what it might amount to.

12. It is clear that the task of providing adequate facilities for adult education is not only big but also extremely difficult. It is more particularly so in regard to women. In addition to their own peculiar difficulties due to social customs, the obstacles which deter men from pursuing their education, for instance mental lethargy, ignorant distrust of modern ways and lack of leisure, are more formidable in the case of women. Moreover, even if all the other conditions were reasonably favourable, an almost insuperable obstacle would still remain on account of the lack of women teachers. It is a vicious circle which will only be effectively broken when a national system of education is producing its full quota of educated women. Meanwhile the importance of making women, and particularly mothers, literate is so great for the future generations that what can be done must be done. Obviously the standard of literacy among women should not in any case be lower than among men. But until women teachers are available in sufficient numbers and where social customs do not permit mixed classes, it may be necessary to depend to a large extent on volunteer teachers, even if their training and qualifications fall short of what would normally be required.

The Adult Education Committee paid special attention to this question and approved of various suggestions, *e.g.*, that girl pupils of colleges and High Schools should be encouraged to undertake social welfare, including educational work, that educated mistresses should consider it a moral obligation to make their servants as well as their children literate, that school children should be urged to carry literacy into their families, that widows should be induced to take up literacy work and so on.

13. It now remains to plan the actual literacy programme for the twenty-five years in which the campaign is to be completed. The distribution of population, the necessity of having in many areas separate classes for women and girls, the desirability of separate arrangements for young boys, the need for keeping the number

of students in a class within efficient limits and other factors suggest that the average enrolment per class should not be fixed at more than 25.

As already indicated, the full working of the scheme cannot be started immediately. The first five years must be devoted to planning, to the recruitment and training of teachers and to the general setting up of the necessary organisation. During this period some literacy work will no doubt continue to be done in the way that it is being done at the moment. The national system of adult education will not, however, come into operation till the sixth year during which it is proposed to make 45,00,000 adults literate. Thereafter, as additional teachers become available, this number will increase by 3,25,000 every year till the figure of 61,25,000 is reached in the eleventh year. For the next six years, the peak years, the number will be raised by another 3,25,000 to 64,50,000, so that at the end of the seventeenth year there should be 7,05,75,000 literates, leaving less than 2,00,00,000 for the next eight years. To avoid any sudden changes, qualitative or quantitative, in the literacy organisation, it is suggested that the annual output of literacy should now begin to diminish steadily until by the twenty-fifth year there should be very little literacy work left to attend to. The literacy organisation will thus slowly and smoothly transform itself into a permanent machinery for adult education.

In the early years there will be comparatively little adult education in the proper sense of the term. But as soon as people begin to achieve literacy, some demand for adult education ought to arise and it is necessary to make some provision for it from the very beginning. This demand may be expected to grow in proportion to the increase in literacy. It is not, however, intended, nor would it be desirable, to have a separate organisation for adult education. It is, therefore, suggested that there should be only one organisation which will in the early years concentrate on literacy work and later on devote itself wholly to adult education in the fuller sense. To put it in another way, the adult education work proper should be telescoped into the literacy work at first gradually and then at an accelerated pace until by the twenty-fifth year the former will have almost replaced the latter and will be ready to take its place completely in the twenty-sixth year.

14. The number of adults to be made literate has been taken as 9,05,00,000 and it has been explained above that on an average every 25 students will require one teacher. There will thus be required in all 36,20,000 teachers. The average fee per teacher may be taken at Re. 1 per hour or Rs. 100 per annum for a hundred hour course. The total salary bill thus comes to Rs. 36,20,00,000. To this amount 15 per cent. should be added to cover extra expenditure on equipment, administration, etc. The total expenditure on the twenty-five year literacy programme thus comes to Rs. 41,63,00,000. For the work of adult education proper, in view of what has been said above, expenditure may be calculated at 10 per cent. of the expenditure on literacy work up to the end of the seventeenth year and thereafter at Rs. 3,00,00,000 less what is required for literacy work. The total expenditure on adult education work during the twenty-five years will thus come to Rs. 18,08,09,500.

The total expenditure on adult education, including literacy, will therefore be Rs. 59,71,09,500 over a twenty-five year period. During the first operational year, the sixth year of the scheme, the expenditure will be Rs. 2,27,70,000, and it will increase every year by Rs. 16,44,500 till it is Rs. 3,26,37,000 from the twelfth to the seventeenth year. From the eighteenth year it will be stabilised at the permanent figure of Rs. 3,00,00,000 per annum.

If illiteracy is to be extinguished on a voluntary basis it will not be practicable to charge fees. A reasonable fee may be charged for adult education classes of a

more advanced type. The possible income from this source cannot be calculated and in any case will be comparatively small.

Total expenditure on adult education over twenty-five years.

		Rs.
Salary of literacy teachers @ Re. 1 per hour for 100 hours	.. ..	36,20,00,000
15 per cent. of above for equipment, administration, etc. ..	.. ..	5,43,00,000
Total		41,63,00,000
Expenditure on adult education	.. ..	18,08,09,500
		59,71,09,500
Average annual expenditure for twenty years (excluding preparatory period)	.. ..	3,00,00,000

15. The Board wish that it were possible to eliminate illiteracy in less than twenty-five years but they have come to the conclusion that if the work is to be done properly, the problem of teachers alone makes it impracticable to contemplate a shorter period.

16. The main conclusions and recommendations of the Adult Education Committee of the Central Advisory Board of Education, together with the decisions of the Board thereon, are reproduced below :—

NOTE :—All the conclusions and recommendations were adopted by the Board, subject to the notes given below.

(1) To secure an early and effective solution of India's educational problems, the provision of facilities for adult education on the widest scale and the introduction of a free and compulsory system of primary education are of equal urgency and must be treated as complementary to one another.

(2) While the literacy campaign is only one aspect of the adult education movement, the prevalence of illiteracy in India at the present time makes it the aspect to which immediate attention must be devoted.

(3) Literacy is a means to further education and must not be regarded as an end in itself. The primary aim of the campaign must be not merely to make adults literate but to keep them literate. To achieve its object the attack must be launched on the widest possible front with the help of every agency, human or material, which can in any way contribute to its success. Continuous and effective propaganda of all kinds is essential.

(4) Efforts should be directed in the beginning to persuade illiterates voluntarily to undergo instruction. If a voluntary system fails to achieve its object, ways and means of bringing pressure to bear on illiterates should be explored.

(5) In a movement of this character the utmost freedom must be allowed to experiment and regard must be had at all times to local conditions. No useful purpose would be served by attempting to prescribe methods or draw up a code applicable to India as a whole. Valuable assistance might, however, be afforded to Provincial Governments and other authorities responsible for adult education if a committee of experts were appointed to report on questions of teaching technique and survey the results of experiments.

(Board's decision : " The Board were of opinion that it would be premature at this stage to appoint a Committee as suggested. It is too early as yet to survey the progress of the movement as a whole or to assess the results of the experiments which are being carried out in many areas. The Educational Commissioner was asked to collect information from Provincial Education Authorities as and when available and to prepare a statement for the Board ").

(6) Whatever subjects are introduced into the curriculum and whatever the teaching methods adopted, the form in which instruction is given must be intelligible and interesting to the student and the instruction itself should be closely related to his occupation, his personal interests and the social and economic conditions under which he lives.

(7) It is unnecessary and inexpedient in view of the circumstances prevailing in India to draw any rigid distinction between adult education in the strict sense and technical, commercial or art instruction or to regard the latter as falling outside the sphere of the former. The easiest way of approach to many adult students may be through subjects of a vocational character.

(8) With a view to defining what is meant by an adult it is recommended :—

(a) that a boy under the age of twelve should not be admitted to an adult centre under any circumstances ;

(b) that a boy, so long as he is attending a full time day school, should not be encouraged to attend evening classes as well ; and

(c) that subject to (b) above and wherever the numbers justify it, separate classes should be organized for boys between twelve and sixteen.

It is unnecessary to fix any age limits in the case of girls who wish to join adult classes for women.

(9) Every effort should be made to enlist the help of voluntary agencies. Classes run by reputable associations should receive every encouragement and bodies whose primary objects are not educational need not be excluded if adequate safeguards are provided against any risk of the movement being used for religious or political propaganda.

(10) Universities should be urged to expand and popularize the work of their extra-mural departments and provide opportunities for adult students of exceptional ability to take a University course.

(Board's decision on Nos. 10, 12 and 13 : " The Board decided, without endorsing them, to ask Provincial Governments to bring them to the notice of Universities in their areas for such action as they might think fit ").

(11) An extension in the number and scope of institutions providing technical, commercial and art instruction is urgently needed, and subjects of a cultural or recreational kind should be included in their curricula.

(12) Adult education is a branch of social reconstruction. Social science in a practical form should be taught in all Universities.

(13) The possibility of making a period of social service obligatory on all students in Universities and pupils in the upper forms of High Schools should be carefully examined. Pending the setting up of a special committee for this purpose a strong appeal should be made to all educated persons, and in particular to Government servants, to render voluntary service in connection with the literacy campaign.

(14) Mechanical aids to learning such as the radio, the cinema, the gramophone and the magic lantern can be used with great effect in adult education. To enable them to be employed much more widely than at present steps should be taken to increase the supply and reduce the cost. Information on this and other points should be collected and distributed by the Bureau of the Central Advisory Board of Education.

(15) An adequate supply of trained and competent teachers is the fundamental need in adult as in every other branch of education. Teachers in day schools may be expected to form the nucleus of this supply but in view of the fact that teaching

methods which are successful with children are not always suitable for adults, they will require a special course of training. It is recommended that the course of training in the normal schools should include instruction in the technique of teaching adults.

(16) It will be necessary to supplement the professional teachers by a large body of helpers drawn from other occupations. The training of these is an essential preliminary to their employment, particularly if they are to be in charge of classes.

(17) Every Province should appoint Inspectors and Organizers, expert in and able to devote their whole time to adult education. The appointment by at least one Province of a number of full-time teachers for adult work only is a commendable experiment.

(18) The movement so far has depended very largely on unpaid service but it is reasonable to anticipate that it will soon require a very considerable proportion of paid workers, especially when the demand arises for instruction beyond the stage of mere literacy. The financial implications of this, including the rates of pay and conditions of service to be offered, are matters for local consideration.

(19) A library is an essential adjunct to every adult education centre. Liberal grants should be given to increase the number and size of libraries, particularly in rural areas, and to assist the production of suitable literature. The Central Government should help in the distribution of books and other literature by granting special postal concessions. Provincial Governments should take immediate steps to deal with the present unsatisfactory state of affairs so far as the supply of text-books is concerned.

(Board's decision : " While in full agreement as to the need for extending libraries and providing suitable literature, the Board felt that no useful purpose would be served by asking the Central Government for special postal concessions as suggested by the Committee ").

(20) The importance of a wide expansion of facilities for adult education is even more important in the case of women than that of men. The methods of approach in the case of women must be at once more varied and less formal. A number of suggestions for furthering the movement among women will be found in Section IX.*

(21) Illiteracy is not confined to the village : a large proportion of the workers in urban areas is also illiterate. In this connection it is essential to secure the co-operation of employers of labour and associations of workers. The question of levying a tax on those employers of labour who do not make adequate provision for the education of their employees is worthy of consideration.

(Board's decision : " The Board felt that practical difficulties would arise with regard to the levying of a tax on those employers who do not make provision for the education of their employees ").

(22) It should be obligatory on all Government departments, central and local, to ensure that their staffs are literate.

(Board's decision : " While agreeing as to the desirability of all Government departments giving every encouragement to their staffs to become literate, the Board did not agree that this should be made obligatory under existing circumstances ").

(23) The progress of the Adult Education Movement can only be ensured if its control in each Province is vested in a single authority. That authority should be the Education Department. It should be the duty of the Education Department (a) to establish satisfactory contacts with other authorities in the province concerned with social reconstruction, of which adult education is a part and (b) to delegate authority to such subordinate bodies and to appoint such officers as local circumstances may require for the effective organization and supervision of the movement.

(24) The cost of the literacy campaign alone apart from other essential developments in adult education will impose a very severe strain on the resources of most Provincial Governments. In view of the extreme importance of bringing the campaign to a successful conclusion at the earliest possible date, the Central Government should afford financial assistance to those Provincial Governments which are prepared to carry out approved schemes within the next five years.

(Board's decision : " In view of the prior claims of primary education to any financial assistance which might be forthcoming from the Central Government towards educational development in the Provinces, the Board were unable to accept the recommendation of the Committee that the Central Government should make a specific grant to Provincial Governments for carrying out approved schemes of adult education ").

(25) In each Province there should be established a Bureau to collect and distribute information with regard to the adult education movement. There should also be a Central Bureau to collect, collate and publish at regular intervals information as to the progress of the movement in all parts of the country. The Bureau of the Central Advisory Board of Education should be equipped to undertake this latter function.

(Board's decision : " The Board were in sympathy with the general policy outlined but thought it advisable to wait for action by Provincial Governments before expanding their own Bureau for this purpose ").

(26) The returns as to literacy in the Census Report should be so amended as to make them more useful for educational purposes.

17. Summary of the main conclusions in this chapter :—

(a) Comprehensive arrangements on the general lines set out in the Adult Education Committee's report should form an integral part of any national system of education. These are particularly important in India today in view of the very high percentage of illiterates.

(b) Literacy is a means not an end in itself. Although the main emphasis in the beginning may be placed on the liquidation of illiteracy, adult education in the full sense must be provided for those already literate. The amount of this should progressively increase as illiteracy disappears.

(c) It is estimated that even with the introduction of a universal system of Basic education there will be over 9 crores of illiterates (age group 10—40) to be dealt with. Plans should be made to solve this problem by a campaign spread over twenty years. Before this campaign opens, five years should be devoted to the necessary preparations, including the recruitment and training of the staff of teachers required.

(d) In this as in all branches of education the quality of the teacher is of supreme importance. The difficulty of obtaining a sufficient number of teachers of the right type, particularly women, must on no account be under-estimated.

(e) The responsibility for adult education must rest with the State but every effort should be made to enlist the aid of suitable voluntary organisations wherever available.

(f) The estimated total annual cost of the proposals contained in this chapter is Rs. 3 crores. At the height of the literacy campaign this may be exceeded by Rs. 25—30 lakhs, but the average annual cost for the twenty years will be a little less than Rs. 3 crores.

CHAPTER VII.

THE TRAINING OF TEACHERS

1. The fundamental requirement of any comprehensive development in the educational system is the provision of an adequate establishment of teachers and of the necessary institutions for training them. The latter ought not only to provide the requisite professional training, but should also inculcate a way of life which will attract and make its mark upon the young man or woman who intends to be a teacher. Teaching must be adequately remunerated but the fact that it should be a vocation as well as a profession should be impressed on intending teachers at all stages of their training.

2. The institutions in India for the training of teachers in 1940-41 numbered just over 640 and in that year 19,392 teachers were trained. Out of these institutions 612 were training schools which admitted class IV pass and Middle pass candidates for training as teachers of primary and lower secondary classes. These schools generally give one or two years' training of a rather elementary nature and the successful candidates are awarded the Vernacular Teachers' Certificate or the Junior Vernacular Teachers' Certificate. The salaries in training schools vary greatly; the Head may be in the provincial scale, while the lowest paid member on the staff may receive as little as Rs. 30 per month.

During 1940-41 the Training Colleges for training graduates numbered 28 and in that year they trained 1,413 teachers. These institutions as a rule are affiliated to Universities but are usually situated as separate units, so that their trainees are almost completely divorced from University life. In some cases they provide facilities for the training of Matriculate and Intermediate candidates as well as Graduates. There is a separate type of institution also called a Training College, which exists specially for the training of non-graduate teachers (Matriculate and Intermediate). The actual number of these institutions is not known but the number of students trained by them as well as those trained by University Training Colleges was 2,096 (1940-41). The duration of the period of training is one year in some cases and two years in others, and the Teachers' Certificate is awarded to successful candidates. The duration of the course at the Training Colleges for graduates is one year but some of them also provide facilities for research which lead to the degrees of Bachelor in Education (B. Ed.) or Master in Education (M. Ed.). The one year course entitles the candidates to a B. T., L. T., D. T., or S. A. V. Certificate, according to the University to which the college is affiliated. These differences in nomenclature tend to make each institution regard its own particular qualifications as superior to those of any other, although in actual practice the syllabuses, periods of instruction, qualifications of the staff, etc., are much the same. The resulting effect of these variations is not in the interest of the teaching profession as a whole. As in the case of Training Schools, the salaries in the Training Colleges vary considerably. The highest paid member may be in the old I. E. S. or in the Class I scale, whereas the lowest paid may get only Rs. 75 per mensem.

There are also a number of Indian teachers who take their professional training abroad, but the number of these is not known. The Board regard it as highly desirable that every encouragement should be given to selected teachers to proceed abroad for professional training or research. The practice of granting study leave for this purpose should be widely extended.

From the above statistics it will be obvious that the number of training institutions that exist at present is utterly insufficient for the needs of a country as vast as India. Furthermore, the type of training which these institutions give is often open to serious criticism. It fails to keep pace with modern ideas in education

and there is insufficient co-ordination between theory and practice. The curriculum tends to be rigid and the conditions of training rarely afford the student in training or even his teachers an opportunity of ascertaining definitely whether or not he is really fitted for teaching. The result is that many unsuitable candidates, who should ordinarily be 'weeded out', find their way into the teaching profession.

3. The Committee on the Recruitment, Training and Conditions of Service of Teachers, whose report was adopted by the Board in January 1943, have suggested vital changes in the existing state of affairs and its recommendations, when carried into effect, are likely to put the teaching profession on a sounder basis. Detailed reference is invited to this report, which is a document of great importance in relation to educational development. The only point in which the report needs supplementing is with regard to the employment of women teachers. In this connection it may be suggested that married women and widows should be increasingly employed in the profession, since it is now being realised that marriage and motherhood provide a background of knowledge and experience which is of inestimable value to women entrusted with the care and training of the young.

4. In the existing schools, primary and secondary, there are 5,18,018 teachers of whom 2,10,496 are untrained (1940-41). The Board have adopted the principle that all teachers must be trained. The output of the present Training Institutions is about 20,000 per year. If thirty years is taken as the normal period of service, the average wastage in the present number of teachers is 17,267 per year. It is, therefore, obvious that the present number of institutions can do no more than meet the wastage of the existing establishment and possibly provide training for the present teachers who are untrained: they will only be able to do this efficiently when they have been reorganised and brought into line with modern requirements. To provide the vast army of teachers which a national system will require a large number of new training institutions will be needed.

In the proposed expansion scheme for the training of teachers it is intended to train 22,17,733 teachers in the course of thirty-five years. Of these 12,29,533 will be required for the Pre-Primary and Junior Basic (Primary) Schools, 6,25,560 for the Senior Basic (Middle) Schools, 1,81,320 for the junior departments of High Schools and 1,81,320 for the senior departments of High Schools. For reasons given in the chapter on Basic Education it is proposed to treat the existing provision, as a reserve towards meeting the needs of the increase of population which may be expected to take place during the period required for bringing the new system into operation. Consequently the calculations in this chapter assume the need for providing teachers for Basic Education and for High Schools for the whole number of children available in accordance with present figures.

The rate at which trained teachers can be produced is the factor on which the entire development programme will depend. It may be taken for granted that in any scheme of expansion the first few years will be devoted to establishing new training schools and colleges and staffing them with suitable teachers. It is proposed to allow five years for this task. From the sixth year onwards it is expected that a gradual flow of additional teachers will begin to be available. In the early stages the number of teachers produced will depend largely on the number of pupils leaving the existing High Schools and Universities who can be attracted into the teaching profession by improved prospects. Later on the expanded High Schools themselves will begin to turn out a large number of potential teachers and it is to be hoped that better salaries and more attractive conditions of service generally will enable the responsible authorities to obtain the requisite supply of suitable teachers.

From the time when additional training facilities will become available, *i.e.*, about the sixth year of the scheme, until the fifteenth year it has been estimated that there will be a normal intake of 20,000 per year. By the end of the fifteenth year there will thus be 2,00,000 teachers over and above those produced by the training institutions now in existence. Thereafter it is reasonable to look forward to accelerating the output of teachers trained, since the expanded High Schools will begin to turn out matriculates from the thirteenth year onwards and intending teachers will be completing their training two years later. From the sixteenth to the nineteenth year there will be a further increase of 10,000, making the total 30,000 per year. In the twentieth year a still further increase of 30,000 is anticipated, bringing the total up to 60,000 per year. From the twenty-first year onwards, by the process of assimilating still larger numbers in the training institutions the required number for the whole country will be reached by the thirty-ninth year, when 22,00,000 additional teachers will be available. Thus to supply the whole country with the staffs required for the main block of the national system, *viz.*, Basic Schools and High Schools, will take a period of not less than thirty-five years from the day of opening the new Training Centres. The programme outlined above is set out in detail in the Appendix—Table F and is also graphically represented at the end. In this table the wastage and the precise numbers of pupils in the different stages are not shown. Nor is the training of pre-primary school teachers shown separately, because these will number only 33,333 and their training will depend to some extent upon voluntary efforts. Once a national system is fully established the annual wastage among teachers due to retirement or death will be very roughly 90,000. Any surplus of Training School or College accommodation may then be diverted to other Higher Education purposes.

5. The Central Advisory Board have accepted the recommendation of their Committee already mentioned that the normal periods of training should be as follows: for Pre-Primary teachers two years, for Junior Basic (Primary) two years, for Senior Basic (Middle) three years, for non-graduates in High Schools two years, and for graduates in High Schools one year after graduation. Further, the Pre-Primary or Nursery School teachers will require special attention, which will take account of personal characteristics and aptitudes, while teachers for Senior Basic (Middle) Schools will need special training in crafts. A somewhat different orientation will have to be given to the training of non-graduates for High Schools, as most of them will be called upon to teach academic subjects to selected children. It will, therefore, be necessary to strengthen their educational background during the period of training as well as to instruct them in teaching methods. At least three separate types of training school would seem to be required, *viz.* :—

1. For Pre-Primary School teachers.
2. For Basic (Primary and Middle) teachers.
3. For non-graduate teachers in High Schools.

6. The next question for consideration is what should be the basis of selection for training. In this connection it is suggested that a system similar to that in vogue in some parts of England might be adopted. In this system suitable pupils who wish to become teachers are picked out during the last two years of their High School course. They are kept under observation by Heads and Inspectors and are given the opportunity of visiting other schools and trying their hand at actual teaching. Doubtful cases are sifted by this means. Such pupils often receive special stipends. This system has the advantage, among others, of ensuring that intending teachers before being admitted to Training Schools or Colleges are *prima facie* likely to make good.

The course during the first year in the Training School should be devoted to the study of general and professional subjects, supplemented by visits to schools, discussions and other means of stimulating the interest of students. A considerable part of this period should be devoted to teaching practice, which should never be relegated entirely to the second year. Wherever a training school or college is established, all schools which are easily accessible should be made available for teaching practice. Unless this is done, it will be difficult to train large numbers within a stipulated period. Moreover, teaching practice can best be done in ordinary schools since the atmosphere of model schools attached to Training Institutions is usually artificial. The second year course should be of a more intensive nature : students should be encouraged to read more widely and more emphasis should be laid on tutorials. Trainees should also be encouraged to pursue their special aptitudes. At the end of the second year's course students who have shown a special interest in or aptitude for craft work should be selected for a third year's training for service in Senior Basic (Middle) Schools or as craft teachers in High Schools. Every effort should be made to enhance the value of the Teachers Certificate awarded to successful students at the end of the appropriate course.

7. If the training unit is too large, it will raise serious problems in regard to teaching practice. If it is too small, it will be uneconomic to staff and equip. A reasonable unit for a Training School would be an institution with about 300 trainees or an annual entry of 150 for a two years' course.

The scales of salaries offered to the staff of a Training School should be somewhat higher than those of graduate teachers in High Schools. On the basis of 1 instructor to 15 trainees there should be 20 instructors per school. Of these, 15 might be on a scale of Rs. 100—5—150 p.m., with 4 occupying special posts of responsibility on a scale of Rs. 125—5—175 p.m. In addition there should be an Assistant Principal on a scale of Rs. 170—10—250 p.m. and a Principal in the scale of Rs. 250—10—350 p.m. On this basis it will be seen from the table below that the salary bill for an institution of this size will amount to Rs. 41,412 per annum and if as in other schools this may be taken as 70 per cent. of the total expenditure the gross annual cost, excluding maintenance of students, will approximate to Rs. 60,000 or Rs. 200 per student.

Cost per Training School (300 Students).

Staff required.	Scale of pay.	Actuarial average.	Cost per year.	Total cost of salaries.	Total cost of Provident Fund.	Total cost of salaries and Provident Fund.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
15 Instructors	100-5-150 p.m.	136·5	24,570	38,976	2,436	41,412
4 „	125-5-175 p.m.	161·5	7,750			
1 Asstt. Principal	170-10-250 p.m.	231·89	2,784			
1 Principal	250-10-350 p.m.	323·05	3,876			

If an adequate supply of teachers is to be obtained for the salaries proposed it will not be practicable to charge any tuition fee. So far as maintenance is concerned, most Training Institutions will necessarily be residential and under normal conditions Rs. 250 per head should cover hostel charges. A fair proportion of the students should be able to make some contribution towards this and it may be assumed that half the total cost may be recovered in this way.

8. The Training College, which is meant exclusively for graduate teachers, should normally provide a year's course, but facilities may also be provided for those students who wish to conduct research or pursue special lines of teaching after the

completion of the year's course. The segregation in Universities or Colleges throughout their University course of potential teachers from students training for other professions should be avoided wherever possible. It is not suggested that where special institutions exist for this purpose they should be abolished but when arrangements are being made to satisfy the needs for more trained graduate teachers, Universities should establish Education Departments, in which graduates can enrol and do their professional training while remaining members of their original college or hostel, if geographical and other circumstances permit.

For reasons similar to those mentioned in the case of the Training Schools the unit for a Training College should not exceed 200, though the Education Department of a Unitary University might be much larger.

It is contemplated that since the Training College will form part of a University, the same figure as for ordinary University students, *i.e.*, Rs. 400 per year should be taken as the estimated cost per capita (*vide* Chapter IV). The following scales of salaries, which have recently been introduced in the Colleges of Delhi University, may be adopted in the case of Training Colleges :—

	Rs.
Junior Lecturer	150—10—250 p.m.
Senior Lecturer	300—20—500 p.m.
Principal	750 p.m.

One-third of the total number of lecturers may be on the senior grade scale.

It will be seen from the table below what the staff would be for a Training College or Education Department unit for 200 students at Rs. 400 per capita on the usual assumption that staff salaries will equal 70 per cent. of the total expenditure. Since the supervision of teaching practice will bulk largely in a one-year course and make considerable demands on the lecturers' time, the full time staff will probably need supplementing by occasional lecturers and other specialists. On the basis of the above data the cost per Training College is detailed in the following table :—

Cost per Education Department or Training College (200 students).

Staff required.	Scale of pay.	Actuarial Average.	Cost per year.	Total cost of salaries.	Total cost of Provident Fund.	Total cost of Salaries and Provident Fund.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
8 Junior Lecturers	150-10-250 p.m.	223·05	21,408	}	3,239	55,055
4 Senior Lecturers	300-20-500 p.m.	446·1	21,408			
1 Principal	750 p.m.	750	9,000			

For the same reason as in the case of Training Schools it is not proposed that any fees should be charged to students in Training Colleges or Education Departments. No provision, however, is made for any special assistance in regard to maintenance, since these students, where needy, will be eligible for aid on the same terms as other University students (*vide* Chapter IV).

Another difficulty which has to be met is that in the Board's opinion the Pre-Primary Schools should be exclusively staffed with women teachers. In Junior Basic Schools, at least three-fifths of the teachers should ultimately be women and this will remain true whether they are organised as mixed or single-sex schools. Women teachers will also be required for the Senior Basic (Middle) and High Schools for girls. Ideally, therefore, the teaching establishment should contain considerably

more women than men but to begin with there will be a very serious dearth of women teachers. It is hoped that in subsequent years, as the number of girl matriculates increases, women will be recruited in larger numbers and take the place of men as teachers of the younger children, whether boys or girls.

9. With regard to the training of teachers for Technical Institutions (other than Technical High Schools) and Special Schools for handicapped children, no detailed scheme can be outlined at present, because it is impossible to forecast how many of such teachers will be required. Technical and Commercial teachers as a rule will get their practical experience in industry and their pedagogical training in the Technical Institutions themselves (*vide* Chapter V). No special Training Schools or Colleges will be required in their case.

10. In addition to the above provisions for the actual training of teachers, refresher courses in accordance with the recommendations of the Board should be provided at frequent intervals in order to keep trained teachers up-to-date. Such courses should cover all subjects of the curriculum as well as new ideas and methods of general interest. They are of the greatest importance in a country where a large number of teachers necessarily serve in isolated villages.

The Board also wish to emphasise the importance of providing ample facilities for research. The need will be apparent for ensuring particularly during a period of rapid expansion not only that teaching methods are kept up-to-date but also that their suitability to Indian requirements is continuously under review.

11. Summary of the main conclusions in this Chapter :—

(a) The proposals for the recruitment and training of teachers as set out in the Report approved by the Central Advisory Board in January 1943 should be generally adopted.

(b) The existing training institutions are barely sufficient to meet wastage among existing teachers and to train those hitherto untrained.

(c) New Training Schools and Colleges (including University Education Departments) must be provided to supply the additional teachers whom a national system will require. These will amount to over 20,00,000 non-graduates for schools of all types and 1,80,000 graduates for High Schools.

(d) Arrangements should be made to pick out suitable boys and girls towards the end of the High School course. This is particularly important in Girls' High Schools in view of the vast increase in the number of women teachers required.

(e) The courses provided should be essentially practical and should be specially related to the needs of the schools in which the trainees will subsequently serve.

(f) No fees should be charged either in Training Schools or Training Colleges : liberal assistance should be available for the maintenance of poor students.

(g) Refresher courses are of the utmost importance and should be provided for all types of teachers but particularly for those in remote rural areas. Facilities should be provided for research and selected teachers should be encouraged to study educational methods in foreign countries.

(h) It is impossible to calculate the precise annual cost of the proposals contained in this chapter. The total net cost of training the additional teachers required for a national system will amount, including maintenance where necessary, to Rs. 159,94,98,250 over a period of thirty-five years or an average of Rs. 4,56,99,950 a year (*cf.* Appendix—Table G).

CHAPTER VII.

THE HEALTH OF THE SCHOOL CHILD

(School Medical Service and Physical Education.)

1. The proposals in this chapter are based mainly on the findings of the Joint Committee appointed in 1941 by the Central Advisory Boards of Education and Health to report on the Medical Inspection of School Children and the Teaching of Hygiene in Schools. This report, which deals comprehensively with the subject of physical welfare in schools, is a document of great importance and deserves close study by all bodies and persons concerned with education. For convenience a summary of its main conclusions and recommendations is included at the end of this chapter.

2. The importance of safeguarding the health of the future generation by promoting physical fitness in schools has, in recent years, been accepted by all civilised communities. It is generally recognised that only those children who are in sound health can be expected to take full advantage of the educational facilities offered. An efficient school medical service is now regarded as an essential part of the public system of education in all progressive countries.

The objective of the school medical service is the healthy physical development of every school child. Where children are sick or defective, its business is first to ascertain what is wrong and then to ensure that the right treatment is available ; where they are in normal health, its business is to give a training in physical activity and in the principles and practice of hygiene, which will make the fit fitter. The former function is mainly medical in scope ; the latter is mainly educational. School medical inspection is something much more than collecting statistics of defects, the school clinic something much more than an outpatient dispensary. Sir George Newman, one of the greatest of all authorities on the subject, has defined the purpose of a school health service as " to prepare the child for education and for citizenship " and has described its functions as follows :—

" 1. To fit the child to receive the education provided for it by the State. But this must also mean to adapt educational methods to the natural physiological capacity and powers of the child. This involves a study and understanding of the sphere and compass of a child's physiology.

2. To detect any departures from the normal physiological health and growth, any impairments, aberrations, defects, or disease (physical or mental), and advise the remedy or amelioration of them (at the school or otherwise) lest worse befall.

3. To seek the causes and conditions (external and internal to the body of the child) of such defect and disease, and, as far as may be, prevent them.

4. To teach and practise personal hygiene in every school, so that a habit of hygiene may be contracted by the children, and the way of physiological life may be followed by each coming generation."

Since it is known that the great majority of children everywhere suffer from some physical defect in the course of their school days, it cannot be too strongly emphasised that adequate arrangements for detecting these defects and dealing with them as early as possible are an essential form of insurance against expenditure on education being wasted.

3. In India the problem has special features arising from the poverty of the masses and low hygienic standards, both personal and public, due to poverty and ignorance. The development of public health services in India is also of comparatively recent origin and the responsible authorities have hitherto devoted most of

their attention to the more immediate problems of medical relief and control of epidemics. In the twenties of this century, and in a few instances somewhat earlier, schemes were initiated in almost all Provinces for the medical inspection of school children, but the information given in the Joint Committee's Report shows how inadequate these were. They were generally limited to important towns, only a few school medical officers were appointed and, where available, the services of Municipal or District Health Officers were utilized. Owing to the dearth of doctors and nurses the schemes have barely touched the fringe of the school population as a whole. Middle and High Schools have received more attention than Primary Schools, where any school medical service should obviously start. Girls have in most cases been left out of these schemes altogether. There has also been no settled policy as to what department of Government should be in charge and the frequency with which they have been started, only to be abandoned after a short period as a measure of economy or for some other reason, indicates that there has been a complete lack of appreciation of their fundamental importance. In no branch of education has financial stringency or parsimony produced more disastrous results.

4. The first need for the medical inspection of children really arises at the pre-school stage and for this purpose it will be necessary to enlist the assistance of maternity and child welfare workers. From the health point of view the age of entry to school, which will bring the child under regular medical inspection, should be five rather than six.

It is estimated that 50 per cent of the school children in this country will need some sort of medical attention or observation. Experience in other countries shows that a routine inspection of all pupils every year involves an amount of work out of proportion to the results obtained and is not really necessary. The Joint Committee recommend that routine examinations should be held (a) on entry into a Basic (Primary) School at approximately the sixth year, (b) at the eleventh year and (c) before leaving in the fourteenth year. For pupils in High Schools a final examination is desirable at the age of sixteen or seventeen. Children going from a private school without a medical inspection scheme to a secondary school should be given a routine examination as soon as possible after admission. A medical record should be maintained for each child, which should go with the child when he moves from one school to another. In between routine examinations care should be taken by the teachers to bring to the notice of the school doctor cases of defects observed by parents or by themselves. The teacher should also keep a record of the height and weight of each pupil twice a year and bring abnormalities to the notice of the doctor.

The examinations should be conducted by a qualified medical practitioner of modern scientific medicine, with some special training in refraction tests and in the detection of signs of malnutrition and also in ear, nose and throat conditions. The inspection should take place on the school premises, and if possible in the presence of the parent. The school physical instructor, if there is one, should also be associated with the inspection, as he (or she) may be able to assist in the removal of some defects by appropriate exercises. The doctor should always go through the results of his inspection with the head teacher.

5. In a unit of school population of 80,000 in between the ages of six and fourteen each age-group will contain about 10,000 pupils. On the basis recommended above of 3 routine examinations during the school life, there will be about 30,000 routine examinations to be carried out every year. An equal number of re-examinations and special examinations may also be required; but these will take only half as long on the average as routine examinations. Thus a unit of 80,000 pupils will require the equivalent of 45,000 routine examinations annually. A wholetime doctor is expected to carry out about 5,000 routine examinations in a year, at the rate of 28 examin-

ations per day in 175 school days. 45,000 examinations will accordingly require the wholtime services of 9 doctors with the necessary number of nurses.

6. Medical Inspection is of little value unless it is linked up with treatment of defects discovered and arrangements for following up cases where necessary. Such meagre statistics as are available indicate that the principal disabilities of the school children in India are enlarged tonsils, adenoids, dental caries, pyorrhœa, malnutrition and defective vision. The removal of defects discovered should be accomplished within the shortest time and with the minimum interference with school attendance. Since malnutrition affects a considerable percentage of children, schemes for treatment should include the provision of supplementary nourishment including a mid-day meal where necessary. Special arrangements will be necessary for the treatment of dental defects, for the enucleation of tonsils and adenoids and for the correction of the more serious defects of vision and hearing. Simple errors of refraction and diseases of the nose and throat which do not require surgical attention can be dealt with by the school doctor.

The present arrangements for treatment, under which children have to take their chance at general hospitals and waste a considerable amount of time without always getting the attention they require, have been described by the Joint Committee as highly unsatisfactory. The provision of school clinics, well-staffed and equipped with medicines etc., at convenient distances from schools, will alone provide the right facilities for treatment. If in the initial stage of the development programme the provision of such school clinics is impracticable, the next best plan is to have a separate time, preferably in the afternoon, allotted exclusively for school children at the local hospital. Whatever arrangements may be made in the way of clinics, it will be necessary to treat minor ailments at the school itself. In the transition period, while school nurses in adequate numbers are being trained, the work will, as far as practicable, have to be done by the teacher under instructions from the school doctor. Apart from the immediate treatment of defects, any campaign for the reduction and prevention of disease among school children must be carried into the home, if appreciable progress is to be achieved. In this regard, with the object of enlisting the co-operation of parents, close liaison between teachers and health visitors will be of great value.

7. It has already been pointed out that one of the main causes of health defects among school children in this country is malnutrition. The condition may be due to under-nourishment or an unbalanced diet or both. As regards under-nourishment, the provision of a mid-day meal in school is recognised to be a good thing both for combating malnutrition and for enabling children to benefit by the lessons imparted at the end of the school day. If properly organised, it also affords a valuable opportunity for social training. In many provinces brave efforts have been made to provide mid-day meals or other supplementary nourishment but finance has restricted these to a limited number of areas only, and children in the primary stage on account of their large numbers have been generally left out. As regards malnutrition due to an unbalanced diet, simple text-books embodying the fundamental principles of nutrition should be made available in the different Indian languages. The Nutrition Advisory Committee of the Indian Research Fund Association have already issued a very useful pamphlet in English.

8. The atmosphere of the school and particularly the example set by the teacher have an important influence on the personal hygiene of the pupil. Steps should therefore be taken to ensure that teachers are themselves physically fit. They should be medically examined before admission to a Training School and should be re-examined at intervals after appointment to protect their own health and the health of the school population. It should also be made generally known that whatever his

other virtues, a teacher who does not see to it that both he and his school are clean will not receive promotion. Before the school starts every day there should be a combined health and cleanliness parade.

The buildings in which schools are housed, if they have not been specially constructed for the purpose, should be certified as suitable and hygienic by the local health authorities. Where new schools are constructed, they should conform to the standards prescribed in the Board's report on School Buildings. In all cases due attention should be paid to lighting, ventilation, heating or cooling, the provision of wholesome drinking water and sanitary latrines. Children as a rule will be found to respond quickly to a good environment.

Co-operative efforts by the children for cleaning up the school and its surrounding areas should be encouraged. Such efforts, apart from keeping the children fit and healthy, will help to make them useful citizens.

9. In order to derive the utmost benefit from the medical service it is necessary that the children should receive proper training in hygiene. In this respect the curricula of schools and the equipment and training of the teacher call for special attention. Practical hygiene should be a compulsory subject in all courses for the training of teachers and particular stress should be laid on this subject in the training of teachers for the Pre-Primary and Basic (Primary and Middle) stages. The syllabus in training schools and colleges in this subject needs to be revised and brought up to date so as to equip the teacher to play an efficient part in the modern school medical service. In view of the peculiar personal, communal and environmental aspects of hygiene in India, which differ widely from those in a temperate climate, special textbooks dealing with Indian conditions are indispensable. A handbook on health education for use by school teachers would also be of great value and in order that the teachers' interest in the subject may be kept alive, frequent refresher courses in hygiene should be provided.

The instruction of children in hygiene should at the beginning be wholly on practical lines and devoted mainly to personal hygiene. The active and willing co-operation of children in health matters is best secured through popular movements and games, *e.g.*, the Junior Red Cross and the Junior Red Cross Health Game. In the higher classes, pupils may extend their activities beyond the school to the community. The Mackenzie School Course of First Aid, Hygiene and Sanitation should be valuable and girls in the higher classes should receive training in mothercraft, combined with visits to child welfare centres.

10. Physical education in India like the medical service has received more attention in the secondary than the primary stage. As usual also, the physical education of girls lags behind that of boys. The employment of trained instructors is limited to secondary schools and the types of exercises given are in some cases old fashioned. Many schools have physical training at the end of the day, a time which should be avoided, if possible. All children should receive physical training, though the form it takes may be modified in individual cases in the light of medical advice. In addition to the more formal exercises physical training should include organised games and other useful forms of corporate activity.

The production of satisfactory results from the system of compulsory physical education requires efficiency on the part of the instructing staff and proper administrative organisation. Every Education Department should have at headquarters an experienced and well qualified officer to organise the scheme in schools and colleges. Under him there should be a District Inspector of Physical Education in each district. Until an adequate number of trained physical instructors is available, the appointment of trained whole-time instructors even in the larger Basic (Primary and

Middle) Schools will not be possible. District Inspectors of Physical Education may therefore profitably organise training camps for Basic (Primary and Middle) School teachers. Every effort should be made to accelerate the progress of physical education amongst girls and the appointment of well-qualified organisers to look after this is essential.

The development of health consciousness through corporate activities which emphasise physical fitness, social service, nature study, crafts, camp life and other healthful activities, is of the utmost importance and should find its place in the life of every school alongside academic teaching. Among the organisations for corporate activity which exist in schools to-day are the Junior Red Cross, Boy Scouts, Girl Guides, the Hindustan Scouts, the Bratibalaka and Bratachari movements. These organisations are all useful ; but there is no reason why schools should not base their corporate activities on a syllabus which embodies the best features of each or those most suited to the locality. At least one period a week should be set apart in schools for some corporate activity, in addition to the time allotted to physical training and games. Through these and other activities, opportunities may be sought for establishing closer co-operation between parents and school authorities.

The health of the school child should be an important consideration in determining both the time-table and the school terms, especially in this country with its varying climatic conditions. Educational authorities should pay due regard to climatic factors and fix the school hours with a view to ensuring maximum mental output with the least possible mental and physical fatigue.

11. The provision of facilities for the mentally and physically handicapped children calls for separate mention. Many of these will probably have to undergo prolonged and specialised medical treatment, and special schools with a separate medical service will be needed. Such pupils may also require teaching during treatment or convalescence under special conditions, which have already received considerable attention in other countries, particularly the United Kingdom.

With regard to the mentally handicapped children who are educable, the establishment of special schools has been considered elsewhere in this report. Apart from the provision of special schools, it will be necessary to take the assistance of specialist medical officers including psychiatrists, educational psychologists and social workers experienced in mental welfare, in dealing with these cases. For this purpose specialist doctors may be associated with the school medical service at least for part-time work. Social workers will be able to seek and remedy environmental causes which contribute to the condition of the child both at home and outside it.

12. In order that the experience of each survey may be available for the subsequent ones, and so that the work may be done better every time and the best scientific knowledge and experience may be brought to bear on the problems arising in school medical work, it is necessary that an opportunity should be afforded for investigating the methods used and the results obtained each year. It will probably be found that the school offers one of the most fruitful fields for research in medicine and health. Provision for research is therefore very important.

13. It has been estimated that 9 whole-time doctors will be required for a school population of 80,000 in the Senior and Junior Basic (Middle and Primary) stages. The total school population of 555 lakhs in these stages would on this basis require the whole-time services of 6,244 doctors. At least another 1,500 would be required for the higher stages of education. In addition to these, specialists of various kinds, dentists and trained nurses will be needed.

According to the report of the Chief Medical Officer of the Board of Education, England, 1938, the school medical service in England and Wales had the following staff—

1. School Medical Officers and Assistant School Medical Officers—

728 calculated in terms of whole-time work, or 1 whole-time officer for 6,220 children.

2. Specialists—

1,065, mostly part-time, for ophthalmic, aural, anæsthetic, X-ray, artificial light and orthopædic work.

3. Dentists—

783 (whole-time), or 1 dentist to 5,780 children.

4. Nurses—

2,798 (whole-time) ; in addition the part-time services of district nurses the extent of which could not be accurately estimated, were utilised.

By the above standards, the requirements of this country should be :—

1. Medical Officers	8,923.
2. Specialist Medical Officers	13,053 (part-time).
3. Dentists	9,602.
4. Nurses	34,295.

The following will probably be regarded as a reasonable estimate for India, at any rate for some time to come—

1. Medical Officers	7,500.
2. Nurses	15,000.

The supply of specialists must depend on the expansion of the medical service generally and that of dentists on the actual incidence of dental caries, which is not known but is supposed to be considerably less than in Western countries. Until an adequate supply of medical officers of all types and of nurses is available, it may be necessary to supplement existing provision by Medical Attendants, to whom further reference will be found below.

Of the 7,500 medical officers, about 500 will probably be mainly employed on administrative work and the balance of 7,000 on field work. As all the 7,500 doctors, like the trained teachers, cannot be provided in a short period, a scheme for producing them over a period of 25 years will call for an additional production of about 300 school doctors per year. This total of 7,500 doctors will give an annual wastage of about 250 on the assumption that a doctor's average period of service is 30 years. So, apart from the immediate provision of a substantial number of doctors it will be necessary to train every year about 250 doctors in addition to those required to replenish the public services on the present basis. It is estimated that in India there are about 45,000 doctors, a number entirely inadequate for the needs of such a large population according to the standards of modern countries. The training of women doctors also assumes greater importance in the light of present requirements. The figures given above will serve as approximate calculations only, and it may in the initial stages be necessary to employ part-time doctors and nurses. The services of a fairly large number of army doctors are likely to be available on demobilisation, and full use should be made of them.

14. As stated above, in the initial stages it may be necessary to supplement the supply of fully trained school medical officers by means of Medical Attendants. The

duties of these officers will be to work in co-operation with the school, the medical service and the home of the pupil. This service should be recruited either from selected teachers, or from other persons with suitable educational qualifications. Their training should enable them to deal with minor ailments, to see that treatment prescribed by School Medical Officers is carried out and to advise teachers and parents generally about ordinary health matters. The number of such officers should not be less than 7,000, that is, about the same number as the doctors engaged in field work.

15. The figure of 34,295 nurses, worked out on the basis of the figures relating to England, may be regarded as unattainable in India at any rate in the early stages. It would seem reasonable to make provision for about 15,000 nurses. At the outbreak of the war India had only about 5,000 registered nurses and the leeway to be made up here even for the normal services is consequently very great. Plans for training 15,000 nurses will also have to be spread over a period of 25 years and this will mean training about 600 nurses annually. Once the standard has been reached, the annual wastage will be about 500 nurses, which should also be taken into account in any future training programme. The stimulus given to the training of nurses by the war may be helpful in achieving an increase in the production of nurses. In any case, until women with requisite qualifications are forthcoming for the profession in sufficient numbers, it may be necessary to employ a number of male nurses to start with as assistants to the female nurses.

16. The administrative machinery for controlling and supervising the school medical service has received careful consideration by the Central Advisory Boards of Education and Health. They recommend that school medical services, being primarily concerned with education, should be placed under the administrative and financial control of the Education Departments. In each Province there should be a Chief School Medical Officer to administer the service, assisted by a sufficient number of doctors for the administrative and executive duties of medical inspection and treatment of school children. As continuity in school medical work is important, a doctor should be deputed for such work for at least four to five years and where possible should devote the whole of his time to it.

As the work will need to be co-ordinated with that of the Medical and Public Health Departments, it may be desirable to set up a committee of co-ordination with the Director of Public Instruction, the Surgeon-General (or Inspector General of Civil Hospitals) and the Director of Public Health as members. In some cases it may not be necessary to appoint a separate Chief School Medical Officer under the Department of Education since it may be possible for the Surgeon General (or Inspector General of Civil Hospitals) or the Director of Public Health to act in this capacity.

17. The main conclusions of the Joint Committee of the Central Advisory Boards of Education and Health are set out below :—

Introduction and Historical.

(1) The Committee wish to draw special attention to the frequency with which a system of medical inspection has been started in a Province only to be abandoned after a short while as a measure of economy. This indicates that there has not been a clear appreciation of the fundamental necessity for and the essential characteristics of a school medical scheme. The Committee emphasise that satisfactory arrangements for school medical inspection and treatment form an essential part of any efficient system of public education.

Aims and Objects of a School Medical Service.

(2) The Committee consider that the aims and objects of a school medical service, as defined by Sir George Newman, are applicable to India and that it is absolutely essential that steps be taken to ensure that children attending school are healthy and kept healthy. This is necessary not only from the medical but also from the educational point of view.

(3) In developing a school medical service in India a big difficulty is the inadequate number of qualified doctors and nurses. However, in some of the large cities it should be possible to organise school health work on as wide a basis as in the West.

Medical Inspection.

(4) Probably fifty per cent. of the children attending school would be found to require medical attention or medical observation.

(5) Too much weight cannot be given to health considerations in determining the age at which children should be admitted to school. The age of school entry should be not more than six and preferably five.

(6) Many routine examinations of school children in some parts of India are unnecessary. The routine examinations should be (a) on entry into a primary school at approximately the sixth year, (b) at the eleventh year and (c) at the fourteenth year. For children in High Schools when leaving at the age of seventeen a final examination is desirable. Children going from a private school without a medical inspection scheme to a secondary school should be given a routine examination as soon as possible after admission.

(7) A whole-time doctor may reasonably be expected to carry out 5,000 routine inspections in a year.

(8) A medical record will have to be maintained for each child, which will go with the child when he goes from one school to another.

(9) Height and weight records should be taken not less than twice a year. This work should be done by the teacher.

(10) Medical inspection should only be carried out by a qualified doctor with special training for the work.

(11) Medical inspection should take place in the school during school hours and if possible the parents should be present. In schools with a physical instructor he should as far as possible be available during the inspection. The doctor should go through the inspection results with the teacher.

Treatment and Follow Up.

(12) A scheme for medical inspection without provision for treatment and follow up is of little or no use. Schemes for treatment must include provision for supplementary nourishment. Special arrangements will be necessary for treating dental defects, tonsils and adenoids and for correcting the more serious defects of vision and hearing.

(13) In urban areas accommodation for school clinics should be provided at convenient centres. In many towns, buildings suitable for the purpose already exist, such as maternity and child welfare centres. Where it is not possible to provide special school clinics, the next best plan is a special session for school children at the local hospital or dispensary.

(14) Much of the minor elementary treatment can be done by the teacher provided he has received the requisite instruction.

(15) Any campaign for the reduction and prevention of disease amongst school children must be carried into the home, if sound progress is to be achieved.

(16) Every effort should be made to secure the interest and cooperation of health visitors in following up the defective school children in their homes.

(17) The lack of contact in every type of school between teachers and parents is a regrettable feature of school life in India, which the Committee feel should be remedied as soon as possible.

(18) As the teacher is the solution of so many of the problems of school health, the Committee urge the vital importance of making the conditions of employment more attractive to the right type of man and woman.

Nutrition.

(19) The children of primary schools are not generally included in the schemes for mid-day meals. The effects of malnutrition on primary school children are not less serious than on children of higher ages. All the children should be given a mid-day meal, whether it is brought from their homes or provided at the school. Parents able to pay should contribute to the scheme.

(20) Simple text-books embodying the fundamental principles of nutrition should be made available in the different Indian languages.

Personal and Environmental Hygiene.

(21) The practice of personal hygiene by school children depends largely on the example set by the teacher. Not only must the teacher's personal cleanliness be of a high standard but his physique and general health must also be good. All candidates for admission to training colleges and schools should be medically examined. The teacher should be medically examined at intervals as much to protect his own health as to eliminate any danger to the school population.

(22) A daily parade before the school starts gives an opportunity of judging cleanliness standards. It should be a health and cleanliness parade.

(23) Where it is necessary to use ordinary buildings as schools, the responsible educational authority should obtain the advice of the local health officer as to their suitability.

(24) The appointment of a body of experts to report on suitable standards for lighting, ventilation and heating of schools is recommended.

(25) In each school some type of container should be provided in which wholesome water kept under lock and key is made available.

(26) Regarding the provision of latrines, the bored-hole latrine offers a satisfactory solution in most rural and suburban areas.

(27) The effect of posture on the child's health and growth with special reference to the use of desks and seats is a matter of great importance and requires special investigation by experts.

(28) Cooperative effort among the children for the cleaning up of the school and its surrounding areas should be encouraged and suggestions are made for carrying this out.

Teaching of hygiene in schools and in training schools and colleges.

(29) Instruction of school children in hygiene should begin at the earliest age possible and at the beginning should be made wholly on practical lines and devoted mainly to personal hygiene.

(30) The Junior Red Cross Health Game is an appropriate and valuable means of laying the foundations of a healthy life during the primary school years.

(31) Hygiene should be a compulsory subject in all courses for the training of teachers.

(32) Practical demonstrations should form an important part of the course of training in hygiene for teachers. They should be taught by practice to recognise defects in children and to do elementary treatment.

(33) Text-books on hygiene dealing with Indian conditions are indispensable.

Physical education.

(34) The Education Department headquarters staff should include a well qualified and experienced officer to organise the scheme for physical instruction in colleges and schools. He should have an Inspector for each District.

(35) The physical instructor should have training in the elementary principles of physiology, of the hygienic mode of life and of nutrition.

(36) Health education should find a prominent place in the programme of study of the physical instructor, the aim being to develop in them the incentive and the ability to train children to practise healthful living and to enable them to cooperate intelligently in medical inspection.

(37) Every secondary school should have a fully trained physical instructor, and his appointment should be a condition for a grant-in-aid.

(38) District Inspectors should organise training camps for physical instruction, lasting about a month, for primary school teachers.

(39) A special effort should be made to accelerate the rate of progress of physical education in girls' schools.

(40) Some period every day during school hours should be devoted to organised physical activity but undue emphasis on drill is undesirable. Organised games should form an important part of the curriculum for physical education.

Corporate activities.

(41) The Education Department should be strongly represented on the Junior Red Cross Committees in order that the potential benefit of this important movement may become more widespread throughout the schools.

(42) The curriculum of the school should be arranged to provide at least one period a week for some corporate activity in addition to physical training and organised games.

(43) A sustained campaign to interest the parents in the school activities and to increase the opportunities of contact between the parents and the school authorities must be undertaken.

(44) Much can be done through education to improve existing health conditions, and the simultaneous education of the child and his parent is an important part of the corporate activities of the school.

Administration.

(45) School medical services should be created in the Provinces.

(46) The administrative control of these, including the necessary budget provision, should be under the Education Department.

(47) In each major Province there should be a Chief School Medical Officer to administer the school medical service, which should contain a sufficient number of doctors for the administrative and executive duties of medical inspection and treatment of school children.

(48) In order to promote coordination in regard to school medical work between the Education Department and the Medical and Public Health Departments, a co-ordination committee consisting of the Director of Public Instruction, Surgeon General or Inspector General of Civil Hospitals and the Director of Public Health should be set up in major Provinces.

(49) In making the recommendation for the appointment of a Chief School Medical Officer the Committee do not regard it as necessarily involving the appointment of a third administrative medical officer at Provincial headquarters. They are of opinion that, in order to secure as much coordination as possible and to facilitate the economic use of doctors already in the employment of the Provincial Governments, it may be found convenient for the Surgeon General or the Inspector General of Civil Hospitals as the case may be or the Director of Public Health to act as Chief School Medical Officer under the Minister for Education. Whether one of these officers acts as Chief School Medical Officer or a separate appointment is made is obviously a matter for each Provincial Government to decide.

(50) Government control over the efficiency of local school medical inspection schemes should be exercised through the judicious distribution of grants-in-aid to the responsible local bodies. Government grants-in-aid should be at least 50 per cent. of the cost.

(51) The expenditure on the supervising staff maintained at Provincial and District headquarters should be a charge on the Provincial funds.

(52) Continuity in school medical work is vital and the period of deputation of a doctor for this work should be at least four to five years.

(53) In the larger towns the employment of wholetime school medical officers is essential for efficient service and such officers should not be permitted to engage in private practice. A scheme should include primary and secondary schools and it should be a condition of recognition that each school takes part in the scheme.

(54) Medical inspection and treatment should be provided free for the children of all primary schools and of the primary departments of secondary schools.

* (55) In secondary schools, particularly in urban areas, the fees charged should include a contribution towards the cost of medical inspection and treatment.

(56) Before a school medical inspection scheme can be drawn up for rural areas, a preliminary survey should be made of the medical facilities available and of the ways of supplementing them.

(18) Summary of the main conclusions in this chapter—

(a) Provision for ensuring the physical welfare of all pupils and students should be made on the lines set out in the report of the Joint Committee.

(b) The cost of the School Medical Service including provision of meals and special schools etc. has, on the analogy of other countries, been estimated at 10 per cent. of the total expenditure on the schools. Provision has been made for this in the estimates of the cost of the national system at the appropriate stages.

* As amended by the Central Advisory Boards of Education and Health.

CHAPTER IX

THE EDUCATION OF THE HANDICAPPED

1. In a national scheme of education which provides for all children according to their special aptitudes, it seems only logical that consideration should also be given to those children who are generally classed as 'handicapped'. Little has been done so far in this country to meet the specific requirements of children in this category, and there is much that it could profitably borrow from the experience and achievements of those countries which have been active in this field already. In educationally advanced countries it is agreed that special provision is necessary for subnormal children who fail to keep pace with the majority of their fellows of the same age-group.

The handicapped may be divided into two major groups ;

(I) the mentally handicapped, and

(II) the physically handicapped.

2. In schools and in the world outside mental backwardness does not always mean the same thing. Among the mentally handicapped two broad types may be distinguished (*i*) those who are born with intelligence below the average and (*ii*) those who are 'backward' owing to some form of maladjustment or physical ailment, which has caused temporary mental retardation.

Children who are mentally handicapped are not a class radically different from the normal, though the dividing line between normality and abnormality seems to have been rising as civilization has advanced in complexity. Throughout the entire range of abilities that children exhibit, the various grades merge almost imperceptibly into one another. A child who appears to be dull at school may not necessarily prove a failure in life. A cut-and-dried classification is not always either possible or desirable. A detailed study of individual cases is required and efforts should be made to trace the particular causes which may be at the root of a child's failure to make due progress at school. Among the 'backward' children, however, two types are generally found :—

(*i*) those who try, and

(*ii*) those who do not try.

In the former category backwardness may be due to—

(*a*) lack of proper guidance in the initial stage of education,

(*b*) wrong methods of instruction,

(*c*) interruption of study due to frequent migration or illness,

(*d*) specific disabilities which only an expert can diagnose, and

(*e*) nervous and temperamental factors.

Among the latter, the causes of backwardness may be—

(*a*) lack of vitality,

(*b*) environmental influences, *i.e.*, unsatisfactory home conditions,

(*c*) over-indulgence or over-discipline at home, and

(*d*) undetected physical deficiency.

The school medical services will no doubt discover and remedy those that are temporary or curable. There will in any case be an appreciable number of children who will need special education only for a limited period, at the end of which they should be able to take their place with their coevals in the normal group.

3. Efforts are being made today to measure the degree of 'backwardness' by reference to a definite objective standard. In the process of selection it is useful to remember that an individual child is much too complex in his make-up and interests to be explained in terms of a few broad principles. 'Intelligence Tests' have, however, come to be generally regarded as reliable methods and the I. Q. (Intelligence

Quotient) or M. R. (Mental Ratio) is considered to be a fairly accurate index of the educable capacity of a child. This method, however, with its stress on abstract thinking has obvious limitations, for children with relatively low I. Q.'s may have other attributes which will enable them to play their part as independent and useful citizens.

On the basis of intelligence tests subnormal children may be put into three groups. Children with I. Q. between 85 and 70 are "dull" children. These children cannot keep pace with the normal group in the ordinary school course. They will always be educationally backward and the chances of their becoming useful citizens will depend upon the development of abilities other than scholastic. The "dull" are able to perform certain tasks calling for a limited degree of initiative and responsibility but will always need a certain amount of sympathetic supervision, if they are to become and remain reasonably efficient.

Children with I. Q. below 70 are usually termed "feeble minded"; they may also be kept in ordinary schools, provided they are only called upon to deal with simple concrete things. Those whose I. Q. falls below 55, *i.e.*, "imbeciles", can find no useful place in the modern world and require special care at home or in institutions.

In Western countries it is estimated that the number of people with an I. Q. less than 55 is approximately 0.3 per cent. of the population. It would appear on that basis that British India has between six to fourteen a population of 1,66,305 which will fit into no kind of school when young and into no occupation when grown up. If the proportion of 1 per cent. is taken as an approximate figure for the number of "feeble minded" there are in the same age-groups in this country 5,54,350 children. The proportion of the "dull" with I. Q. 85-70 is estimated to be about 15 per cent. of the age-group, and on that basis the number of children in the category will be 83,15,250.

4. It is not desirable for psychological or other reasons to segregate the subnormal or backward children in schools. 'Dull' children, apart from intellectual incapacity, may be otherwise sane and normal. Although it may be expedient in the course of ordinary grading to separate dull children from the bright ones for a considerable part of their intellectual training, yet since they will have to learn to live in a world with people of all grades of abilities, it is essential that throughout the school life they should have opportunities of mingling freely with their brighter fellows and of sharing with them such work and pleasures as all children enjoy. The mentally handicapped children who are educable should, therefore, remain within the general educational system, though special provision will have to be made for their particular requirements. Special schools may have to be provided for the "feeble minded" at a later stage.

5. The education of handicapped children must, as in the case of the normal, aim at enabling them to lead a life of useful service to the community and happiness for themselves. The study of individual children will guide the school in determining what useful habits they should form, what kind of skill they should acquire, what interests and attitude of mind they should be led to develop and what knowledge they should strive for. A carefully planned programme suited to the child's potential abilities, academic and vocational, will enable the child to work towards definite standards. His success should be gauged in relation to his own potentialities rather than in terms of achievements of the normal groups. In short, when it is realized that the understanding of the child is of prime importance and that the subject matter is secondary, then, and only then, can a school help each child to realize his own potentialities.

6. " Those who have had opportunities of watching a successful teacher of a dull and backward class at work have no doubt of the qualities by which such a teacher shines. In the first place, he shows very clearly that he is thoroughly familiar with children's ways : he is interested in them as individuals ; he possesses the power of divining whatever latent possibility is in them and of inspiring them with his own confidence in their eventual success ; he is thoroughly familiar with what appeals to children, he knows how to provide the tasks that will keep them happily and usefully occupied and how to make work that does not at first attract a source of pleasure and profit ; he is able to turn the most untoward circumstance to good account and re-direct attention into proper channels when it has become diverted elsewhere ; he is generous and open-minded, quick to show sympathy when it is needed but slow to give up hope when things are not going well ; he is lively and cheerful himself and his example and influence breed liveliness and cheerfulness in his pupils ; he may or may not be distinguished academically, but he will certainly possess a fund of common sense and have an undoubted gift in some direction or other—a gift, perhaps, for dramatic work or for music, or dancing, or games, or craftwork. On the whole, his interests will be active and practical rather than just bookish ; he will be wise and resourceful rather than merely clever ; and he will be more interested in projects rather than subjects and in children than either ".*

Teachers with the qualities described above are not easy to find ; but the problem of ensuring the supply of such teachers is inseparably bound up with those of the selection and training of teachers in general. There are not many members of the teaching profession in this country who possess experience in handling dull children over a long period, for acquaintance with the general principles of human development must necessarily be supplemented by class-room experience and hitherto little attention has been paid to the dull or backward child as a specific educational problem. The training colleges will have to face the task almost entirely by themselves, since they cannot as in other educationally advanced countries turn to organisations for mental welfare, like the National Institute of Industrial Psychology or the Child Guidance Clinics, for help and guidance.

There are at present only two institutions in India for the education of the mentally handicapped.

(1) Bodhana, Jhargram, Bengal.

(2) The Children's House, Kurseong, Bengal.

The first is the only institution which serves the needs of all communities in India generally ; the second is an institution catering for European and Anglo-Indian children only.

7. The physically handicapped may be divided into the following categories :—

(i) Those who are deficient in one or more special senses ; the blind, the deaf, the deaf and blind, the deaf-mutes etc.,

(ii) those who are retarded by motor deficiency including respiratory, heart and orthopaedic cases and

(iii) those who are defective in speech.

The number of the physically handicapped according to the census of 1931, modified in the light of expert opinion, may very roughly be put as follows :—

Blind	..	..	..	..	17,50,000
Deaf-mute	..	..	..	..	2,00,000
Deaf	..	..	..	..	6,00,000
Cripple (permanently handicapped)	..	..	..	..	Not known.
Delicate (temporarily handicapped)	..	..	..	..	Not known.
Speech-Defective	..	..	..	..	Not known.

In the absence of effective remedial measures, climate, customs and quacks must have added considerably to these figures during the last ten years. Unfortunately no figures relating to these items are available in the 1941 census.

8. The census of 1931 puts the number of the blind in British India (excluding Burma) at 4,35,078, but census figures can hardly be relied on for educational purposes as there is no standard definition of blindness in this country. If the definition adopted by the English Board of Education be accepted, namely, "so blind as to be unable to perform any work for which eye-sight is essential", expert calculation would then raise the number of the blind population in India in 1941 to about 20,00,000, with about 4,00,000 in the six to fourteen age-group.

What has been done up-to-date to tackle this problem has been very largely due to voluntary philanthropic enterprise. There are in existence 33 societies which are gallantly facing this enormous challenge; of these 25 are for the blind only, 6 are for both blind and deaf, 1 is in combination with a poor asylum and 1 with a cripple home. Altogether they have a total enrolment of 1,156 blind people, of whom 998 are males and 158 females. Of these 987 are children. It will be clear from this how much remains to be done.

If the problem is to be effectively tackled, the services provided must be comprehensive. It is true that in other countries blind welfare work has been pioneered by private philanthropy and the State has come in when private enterprise had already made appreciable progress. This country, however, has waited long enough and the time has arrived when the State should take up the education of handicapped children as a necessary part of the general scheme, though it will no doubt at all times encourage and welcome voluntary assistance. The Board have urged that comprehensive legislation in the general interests of the blind should be promoted on the lines of the Blind Persons Act in Great Britain. Such legislation should ensure among other measures the compulsory education of blind children as well as facilities for vocational training to provide employment for the employable blind and financial help for those who cannot be made self-supporting. As a preliminary to launching an effective scheme for the welfare of the blind it is essential that a special census of the blind persons in India should be taken as soon as possible. It is also necessary to adopt a Uniform Braille Code for Indian languages as a whole. Attempts in the past to overcome the linguistic difficulties inherent in this task have failed but last year a special committee of the Board at last succeeded in devising a Uniform Braille Code which will, it is hoped, meet the demands of the Indian languages and win in time general acceptance. It still remains to set up a central press with an up-to-date embossing plant and a workshop for manufacturing necessary educational apparatus together with a central library to serve all institutions in India.

Apart from training facilities for the blind there also should be in every area an after-care department to place those trained in jobs as well as a research bureau to investigate improved methods of training and new avenues of employment. Special training institutions will also be necessary for training teachers for the blind schools. While the schools with their medical services will do all they can to train and place the blind in life, there are numerous other aspects of the problem, *e.g.*, the prevention of blindness, the education of public opinion, begging, etc., which can only be tackled effectively by an all-India society with the sanction of the State behind it. It is satisfactory to record that the Government of India have recently appointed Sir Clutha Mackenzie to study the problem and prepare a comprehensive scheme for improving the general welfare of the blind population.

9. It is a common practice in existing institutions to combine the education of the deaf, deaf-mutes and other physically infirm with that of the blind. As their requirements are separate and distinct, there should be special institutions for the education of each main category. Deaf-mutes and the stone-deaf require education in a special school for the deaf; the partially deaf, according to the degree of their defect, should either be taught in a school or class for the partially deaf, or should be placed in the front seats of the class in an ordinary school.

The existing educational provision for the deaf comprises 35 schools with a total enrolment of 1,313 pupils.

10. One of the most notable expansions of the educational and medical services in Western countries during recent years, has been the development of schemes for the education and training of the physically handicapped children, most of whom are commonly known as "cripples". The English Board of Education hold that there are three vital conceptions which lie at the foundations of any sound application of medical science to the amelioration of the condition of the child disabled or crippled by disease or accident—

- (1) there must be restoration of the form and straightness of the body;
- (2) there must be re-education of the restored functions of the body;
- (3) reliance for both restoration and re-education must be placed in the inherent powers of the living tissues of the body, of brain as well as of bone and muscle.

The under-vitalized, the tubercular and the cardiac may be considered together within this somewhat complex group of the physically handicapped. The term "delicate" may be used to cover the sub-group whose deficiencies are more or less of a temporary character. The facilities required for the delicate in many ways resemble those for the permanently handicapped or the "cripples". Fresh air classes and open air schools are the best that educational and medical experts have been able to prescribe for this type of child. The open air school should be a play ground and a school room combined. Climatic conditions in this country would render it necessary to build these schools in localities where the winter is mild and the summer not too trying, i.e. at the sea-side or in hill stations of moderate height.

11. The variety of forms of speech defect and the number of causes to which these defects are attributed make the care, treatment and education of children suffering from such handicaps extremely complicated. The outstanding cases are the speech defects of the deaf and stuttering, which is commonly associated with motor defects. A national survey in U.S.A. revealed that 9 in every 1,000 children are stutterers and that there were in that country about 1 million school children between the ages of five and eighteen so handicapped in speech as to require remedial treatment and training. There can be no doubt that the number of children so affected in this country is very large. Treatment can be provided either in full-time special schools, day or residential, or more easily and economically, in special classes held after school hours so that the children may be free to attend their ordinary classes at other times. It is of course necessary to employ expert teachers and to give individual instruction. It is also important to secure the cooperation of the parents.

12. Another group of individuals should claim consideration from the educationist today. Those with more easily recognized handicaps, whether physical or mental, have received due consideration in educationally advanced countries for many years past but it is only recently that a group, who were usually labelled "criminals", have come to be classified as "socially handicapped" or "social

misfits" and regarded as within the possible range of educational reclamation. The problem is one of reclamation rather than segregation. The retributive attitude is being gradually replaced in civilized countries by an educational approach and a modern educational system in this country should provide facilities for the proper training of this group with a view to rehabilitation. With the introduction of a compulsory system of education, which should keep all children usefully occupied in school, the magnitude of the problem will be to some extent automatically reduced. Child Guidance Clinics will no doubt be established by authorities to deal with delinquent or socially maladjusted children.

13. The Board have considered the minimum educational qualifications and the minimum age for admission to the appropriate courses of training in the case of teachers in special schools for mentally and physically handicapped children and are of opinion that generally the requirements here should be the same as in the case of primary schools. But they emphasize in agreement with what has been stated above that in selecting recruits for such schools special attention will have to be paid to personal characteristics and aptitude. They, however, recommend that the course of training for the teachers in blind schools should be different and that there should be established a special all-India institution for the training of teachers of this category. The same will apply in the case of teachers of the deaf.

14. In considering the question of accommodation the Board are of opinion that although the average number in a class in the special school for handicapped children should be considerably smaller as a rule than in an ordinary school, this should not be regarded as an adequate reason for reducing the size of any class room below that of the standard unit prescribed for normal children, that is, 400 sq. ft. Children with physical defects require more room for movement and often need special furniture, while in the mentally sub-normal class freedom of movement, variety of practical occupations and personal supervision by the teacher all demand ample floor space. Special types of construction will be necessary to meet the special requirements of these schools and it is likely that much experiment will have to take place before the type of accommodation specially suited to Indian conditions can be discovered.

Special schools will, on the whole, be more costly than the ordinary schools and the cost of each type of school will vary with the nature of the special services and requirements involved. The special services, the buildings and equipment, the higher cost of training and the higher salaries of teachers in some cases will all tend to add to the cost of this branch of the educational system. It may be asked whether a country like India could or should afford the money for such special schools, the return for which may not be proportionate to the expenditure involved. The answer is that in a national system intended to satisfy the needs of all it is difficult to ignore the claims of those who are unfortunate through no fault of their own. Moreover, the money spent in educating them may prove a profitable investment in view of the fact that many of the handicapped at the end of their training may be saved from becoming a burden either on private charity or on the State.

Consideration has already been given by the Board to this problem and in 1936 they recommended that the education of the handicapped should not be neglected and asked Provincial Governments to report what the position was in their areas. The general attitude of the Provinces, as indicated by their replies, appeared to be that whatever funds were available should be spent in extending education among normal children. In spite of this the matter was taken up again by the Board last year, when they reiterated their opinion that the provision

of special schools for mentally and physically handicapped children should be one of the functions of the State and that the question should receive the earnest and immediate attention of the educational authorities concerned. They also recommended that the Provinces, Local Administrations and major States should make a survey of the mentally and physically deficient population of school going age, since in the absence of such information no planning is possible. The time has come when State action can no longer be delayed. While in a period of financial stringency there may have been some justification for preferring the claims of the normal, there can be no excuse for neglecting the needs of the handicapped in a scheme of education on really comprehensive lines which is now in contemplation.

15. Summary of the main conclusions in this chapter :—

(a) Provision for the mentally or physically handicapped should form an essential part of a national system of education and should be administered by the Education Department.

(b) Hitherto in India Governments have hardly interested themselves at all in this branch of education : what has been done has been due almost entirely to voluntary effort.

(c) Wherever possible, handicapped children should not be segregated from normal children. Only when the nature and extent of their defect make it necessary, should they be sent to special schools or institutions. Partially handicapped children should receive special treatment at ordinary schools.

(d) The blind and deaf need special educational arrangements, including specially trained teachers. It may be desirable to establish central institutions for training the teachers required.

(e) Particular care should be taken to train the handicapped, wherever possible, for remunerative employment and to find such employment for them. After-care work is essential.

(f) In the absence of any reliable data it is impossible to estimate what would be the cost of making adequate provision for the handicapped in India ; 10 per cent. of the total expenditure on Basic and High Schools has been set aside for special services, which include such provision, and it is hoped that this will suffice.

CHAPTER X.

RECREATIVE AND SOCIAL ACTIVITIES

1. In recent years the conviction has been growing that education in the real sense should be a training in the process of social adjustment rather than the mere injection of a special dose of mental, moral or physical instruction. Consequently, an important aim of school and college life should be to provide opportunities for social and civic training outside as well as inside the classroom. One means of achieving this aim is by the provision and organisation of recreative and social activities. In the past these activities were mainly organised independently of the teacher and so were "extra-curricular" in the strict sense. In recent years, however, they have been claiming an increasingly important place in the curriculum and demanding greater collaboration and assistance from the teachers.

Recreative activities offer a valuable means of satisfying urges which are inherent in the nature of nearly all young people, *e.g.*, gregariousness, loyalty, sympathy, curiosity, imitation and love of approbation. The child is not born a social being and during the earlier stages of his education he needs to be made to realise that he is a member of a larger social order and that there are units outside himself which he cannot possibly ignore. Recreative activities should offer natural situations in which children can learn subconsciously what they are not so likely to learn in the classroom, the spirit of co-operation and team work both in thought and action. Such qualities as leadership, initiative, resourcefulness and so on cannot be developed simply by studying the usual subjects of the curriculum but recreative activities offer a very wide field for their development. Further, when boys and girls find themselves engaged in activities alongside others of their own age and range of understanding, interests and ideals, the experience so acquired tends to be of a more permanent and useful nature than that obtained from books. Finally, those individuals who are different or have special aptitudes are likely to discover in this wider field some activity for the exercise of their powers.

2. The need for recreation cannot be limited only to the school population : it is a necessity for everyone at every stage of life. For this reason in a national system of education recreation in different forms should be provided for all and so should social services in the wider sense. Local conditions should naturally be taken into consideration while organising any form of activity. There will be three main fields whose needs must be explored—

- (1) The school and college period ;
- (2) The adolescent period in the case of those who have left school ;
- (3) Social Service generally.

3. It is not intended to devote much space here to the activities belonging to the school and college stages. These have already established their claim to an increasingly important place in the curriculum and in course of time it is reasonable to expect that they will be regarded in India as no less essential a feature of full-time instruction than they are elsewhere. A brief reference may be made to certain general tendencies and the way to deal with them.

In the early years of Basic education the social impulses of children are only slightly developed. Physically they are not strong enough to take part in the more strenuous forms of sport or socially conscious enough to be enthusiastic about team games. Such activities as gardening, folk dancing, Swedish drill and other forms of physical exercises, Junior Red Cross groups, acting, Cubs and Bluebirds, games (indoor and outdoor), athletics, excursions, and hobbies are most suitable for children up to eleven or twelve years of age. Since the social impulses begin to develop more

strongly about the age of 12-13 the onset of adolescence is the time for organising recreative activities of the corporative type. For children of this age, debating, dramatics, organised games, inter-school competitions, etc. should be provided. Young Farmers' Clubs may arouse enthusiasm in rural areas.

Besides the above activities, there are many indigenous games in different parts of the country, the full recreative value of which for school purposes has still to be explored.

4. As the pupil passes through the High School and approaches the University stage, he becomes increasingly conscious of the society in which he is moving. The Boy Scout, Girl Guide and similar movements, Junior Red Cross Groups, Debating and Dramatics, Co-operative Societies, Rural Uplift Societies, in addition to his normal games and hobbies, will probably satisfy him up to the end of his High School career but after that he will require something rather more advanced. Moreover, as his social consciousness is enlarged, he will become interested in social activities designed for the benefit of other people than himself. From early in the adolescent period the idea of social service should be inculcated.

For the successful organisation and functioning of recreative activities it is imperative to have ample playing fields and playgrounds. In this connection the Report of the Board's Committee on School Buildings, which outlines the provision required for these in every type of school, should be consulted.

5. In recent years one of the most striking and important educational developments in civilized countries has been the great expansion in the provision and maintenance of recreative facilities for young people in the age-group 14-20, after they have ceased full-time attendance at school. The problem of dealing with young people no longer under school discipline and subject to new experiences, problems and temptations, with which it was impossible to deal adequately while they were at school, is one of the adolescent problems, which has always engaged the attention of educationists and social workers. In addition to moral there are also economic issues, for young people at this stage are often unsettled in their employment and in need of good advice. In the third place there is the need for amusing them and keeping them fit. Progressive employers are increasingly realizing that it is in their own interests as well as those of their young employees to satisfy these needs but their unaided efforts, particularly in this country, will go a very small way towards solving the problem as a whole.

The principal argument in favour of Day Continuation Schools is that they will contribute largely towards the desired end but even so they can hardly be expected to cover the whole period between the end of full-time education and the age at which a boy or girl can be regarded as a full adult member of society nor will they cover all the possible fields of desirable activities, particularly on the recreational side. It is not advisable that the amusements of the young should be too obviously under the direction and supervision of authority. To promote the object in view something more elastic is needed and it is hoped to find this in what is now popularly called the Youth Movement. The over-riding purpose of this movement in England, where it is now taking firm root, has been to improve the health, happiness and all-round efficiency of its members. It aims not at superseding but at enlisting the help of all voluntary associations and bodies whose objectives are in line with this general purpose and at filling the gaps where these exist. The main aim must, therefore, be to continue to keep in touch with young people after they have left school and to see that they are provided with healthy amusement and to give them unobtrusive guidance through a number of problems and pitfalls to which they were only rarely

exposed while still of school age. The consensus of opinion in America, where this movement is also gaining popularity is, that when compulsory attendance ends, the school leavers have still to be trained in the art of citizenship. The question therefore is a much larger one than that which used to be called "keeping boys and girls out of temptation."

6. In India 320 lakhs of young people come within the age-group 14-20. The problem of dealing with such large numbers is a formidable one. Valuable as is the work which they are doing, it can hardly be said that the organisations now working in this field, *e.g.* the Y. M. C. A., Y. W. C. A., the Boy Scout and Girl Guide Movements, the Hindustan Scouts with its Girl Scout section, the Ramakrishna Mission, etc. are adequate and sufficient in number to cater for this large number of young people. An All-India Youth Movement which would aim at coordinating the activities of these bodies, at helping them to extend their range and at supplementing their efforts is what is really required.

One of the main problems in work of this kind is to get and train the right kind of people as leaders. Experience in the West has shown that leadership is the key-stone on which this movement rests. Its success and indeed its existence depend almost entirely on the degree of contact between leaders and class members; so that the personality of the leader is of paramount importance. The good youth leader must have sound technical training, some knowledge of psychology (gained practically rather than theoretically), understanding, adaptability, a sense of value, a sense of humour, a power of arousing enthusiasm and last, but not least, tact.

At the end of the war a number of officers and others who have occupied positions of responsibility in the services will be demobilised. It is not suggested that military discipline is required in a Youth Movement; very far from it. But the people in question will presumably have exhibited some of the qualities of leadership and may be suitable for training as youth leaders. They may also be better able than others to deal with the demobilised soldier, who finding that he has not returned to a country fit for heroes to live in, may again constitute a serious social problem in a post-war world.

7. In a country so large as India or with such varying conditions it is unwise to attempt to prescribe in too great detail the type of activities that the Youth Movement should provide.

Experience in the West has shown that the following are among the activities which have a wide appeal: (1) Games' clubs of all kinds (2) Social clubs of all kinds, particularly in towns (3) Young Farmers' clubs (4) Organised excursions (5) Hiking (6) Youth Hostels. Scouting, Girl Guiding, Junior Red Cross and other similar organisations which are commonly found in schools and colleges, also appeal to young people of this age-range. In addition to the above, practical activities such as cooking, first aid, arts and crafts (sewing, knitting and weaving), mothercraft (child hygiene and care of the young), as well as music, dancing and games should be provided for Indian girls and young married women. In fact any kind of activity which brings young people together for the purpose of enjoying themselves healthily or giving joy to others should be included among the activities of the Youth Movement.

8. In organising a Youth Movement in this country full advantage should be taken of past and recent experience in Western countries, particularly England and America. It must be borne in mind that such a movement should make use wherever possible of voluntary organisations and work through them. Only where these fail should the State directly intervene.

While Provincial or smaller areas, *e.g.* districts, must remain the primary units for organisation, an All-India Youth Committee should be appointed to give central guidance and advice and to assist the development of the movement by training leaders and by giving financial assistance where necessary.

The ultimate object is to have in each Province 2 District Organisers (1 man and 1 woman), and 4 Assistant Organisers (2 men and 2 women) for each district. As there are 226 districts in the whole of British India, the number of District Organisers will be 452 (half of these will be women), and Assistant Organisers 904 (half of these will be women). Two Central Training Institutions are envisaged, one for training men organisers and the other for women, since the training will involve two distinct types of technique. To begin with it is proposed to train 100 men and 100 women organisers each year, and the process will go on until the required number is reached for each kind. The duration of the training period will be not less than one year. Training centres will also be used for training part-time as well as full-time leaders and for giving refresher courses and such further training as experience may suggest.

9. The third phase of recreative and social activities extends to the whole field of social service. There is no need to stress the importance of this in a country like India where the standard of living of the masses and the amenities of life generally are so much inferior to those which obtain in many other countries. What should be done to organise social service more effectively has been set out in the report of the Committee appointed by the Board in 1940 to consider this subject. Its main conclusions are summarised below:—

(1) (a) There should be established in India, preferably at Delhi, a centre in which an impartial and thorough examination of the problems connected with the Social Services and Public Administration in its relation to the Social Services, could be carried out.

(b) For this purpose a central body, to be called the All-India Council of Social Service, should be set up with an institute for research under its control.

(c) In order that the central institution might be at all times in close touch with practical problems and have some place where actual experiments could be carried out it would be extremely desirable that there should be closely associated with it, if not under the same direction, a training school for social workers.

(2) In each province and other large administrative areas there should be at least one centre affiliated with the All-India Council the main object of which would be to stimulate and co-ordinate the work of social service agencies, voluntary and official, in the area and to arrange for the training of social workers of all grades.

(3) Training in social work should be given to the officials of public departments concerned with the social services as well as to the workers of voluntary bodies.

(4) Every University in India should have a department for extramural work in charge of an officer who has had a thorough training in Social Service.

(5) As most of India's population is in the rural areas, corresponding importance should be attached to training for service in rural areas persons with a real knowledge of and interest in country life.

(6) The composition of the proposed All-India Council of Social Service and the staff of the proposed Central Institute and their remuneration should be as set out in paragraphs 11-14 of the report.

(7) The annual recurring cost of the Central Institute estimated at between Rs. 75,000 and Rs. 1,00,000 should be borne by the Government of India for an initial period of five years.

(8) Every effort should be made to build up an endowment fund which would make the Central Institute self-supporting within a reasonable period.

10. Summary of the main conclusions in this chapter :—

(a) The provision of recreative and social activities on an adequate scale is an essential feature of any modern educational system.

(b) Apart from the needs of boys and girls in schools and colleges special attention should be paid to those in the 14—20 age group who are no longer attending school. To serve these a Youth Movement on an All-India basis should be set up.

(c) A Youth Movement should aim at co-ordinating and supplementing rather than superseding the work of organisations already dealing with aspects of this problem.

(d) The main need of a Youth Movement will be for leaders, both men and women, who will have to be specially trained. The possibility of finding suitable recruits among demobilised Officers and N. C. O's. should be explored.

(e) The provision of social and recreative facilities for adults should form an important part of any Social Service scheme. Reference is invited to the report of the Board's Committee on Social Service and Public Administration (1941).

(f) It is impossible to estimate the ultimate cost of the provision contemplated in this chapter. Rs. 1 crore may be included in the estimate.

CHAPTER XI

EMPLOYMENT BUREAUX

1. The Employment Bureau is an essential adjunct to any educational system. In one sense schools and colleges are the factories which turn out what are potentially the most important and valuable of all of a country's products, *viz.* its future workers and citizens. It may seem strange that education authorities should take less trouble than other manufacturers to find a market for their output, but in India this is unfortunately the fact. Hardly anything is done to advise parents as to the occupations for which their children are most fitted or to place those leaving school or college in suitable posts. The fact that openings to progressive and remunerative employment in India are more restricted than in most other countries makes the absence of such a service all the more regrettable.

2. The main functions of an Employment Bureau may be summarized as follows :—

(a) to establish contact with all schools from which on completing the course boys and girls normally enter employment and to advise parents and head teachers in the light of (i) school records (ii) aptitude and other tests (iii) the openings for employment available in the area, as to the occupations which leavers should seek to enter ;

(b) to establish contact with employers of Labour in the area with a view to (i) ascertaining what openings are likely to be available and the essential qualifications for filling them (ii) persuading employers to recruit their employees through the Employment Bureau (iii) minimising so far as possible blind-alley occupations ;

(c) to place in suitable employment those leavers who have not already obtained posts for themselves ;

(d) to arrange for the after-care of young workers especially in order to deal with misfits (Experience in Great Britain has shown that it is normal for young workers, particularly in the lower grades of Labour, to change their jobs several times before settling down), and

(e) to establish and supervise in cooperation with employers regular systems of apprenticeship in those trades for which these are suitable.

3. The senior members of the staff of an Employment Bureau must be carefully selected persons of both sexes with specialist qualifications. Since it is essential that they should be familiar with school organisation and with the psychology of children, particularly adolescents, some practical experience of teaching is necessary. First-hand experience of industrial conditions is desirable but not so important. It may, however, be regarded as essential that all Employment Officers should undergo a course of Applied or Industrial Psychology, including aptitude and intelligence testing. Special arrangements will have to be made to set up such courses and it is possible that the services of the experts now engaged in selecting Officers and N. C. O's. for the Fighting Services may become available after the war and form the nucleus of the organisation required.

4. The Employment Bureau should be regarded as an integral part of the educational administrative service and under the direct control of the Director of Public Instruction. Whether it is centralised or has a number of local branches is a matter to be decided in the light of local conditions but in the larger provinces at any rate it

will certainly be necessary to have branches at all the headquarters of the Provincial Educational Districts and probably at the other large centres of population as well.

The Employment Bureau should be responsible for leavers from all types of Senior Basic, Junior Technical and High Schools. Universities and other institutions of University rank should preferably have Employment Bureaux or Appointment Boards of their own since their graduates will probably seek employment over a wider area but there is no reason why they should not make use of the Education Department's facilities, if they wish to do so. It would serve a useful purpose if in all larger schools and colleges at any rate there were 'careers' masters and members of the staffs with the specific duty of maintaining close contact with the Employment Bureaux.

In Great Britain the Employment Bureaux for school leavers originally formed part of Employment Exchanges under the control of the Ministry of Labour. Experience, however, showed that school leavers require specialised treatment by people familiar with educational conditions and it was agreed that the work of Juvenile Employment, including Unemployment Insurance, should be handed over to those Local Education Authorities which were prepared to undertake the task. Before the war most of the larger Authorities had already accepted the responsibility. In India Employment Exchanges have not yet been established, though the Labour Tribunals set up for war purposes may provide the basis for such an organisation after the war. In any case they should have collected data which will be valuable for Employment Bureaux. It cannot, however, be too strongly emphasised that these Bureaux, which are concerned directly with the output of educational institutions, should be under the control of the Education Department.

5. In the absence of any experience under Indian conditions it is impossible to form any accurate estimate of the probable cost of establishing Employment Bureaux on a national scale. So far as British India is concerned, the average number of leavers who will come within their purview annually will be 52,00,000 from Senior Basic Schools and 12,00,000 from High Schools. About half of these will be girls. Of the Senior Basic School leavers, at least three-quarters will come from rural areas and the great majority will go to work on the land when they leave school. These will make a comparatively small demand on the services of the Employment Bureau. Of the remainder, until it becomes more common for girls to enter industrial or commercial occupations, the main avenues of employment for girls will be in teaching, nursing and similar avocations, recruitment to which will be made as a rule directly through the schools.

The clientele of the Employment Bureaux will therefore mainly consist of boy leavers from Middle Schools in urban areas, from Junior Technical and Industrial Schools and those boy leavers from High Schools of various types who do not intend to proceed to Universities or other places of further education. An annual expenditure calculated at the rate of Re. 1 per school leaver, *viz.* Rs. 64,00,000 should cover the ultimate cost of Employment Bureaux.

6. Summary of the main conclusions in this chapter :—

(a) Employment Bureaux form an essential part of educational administration : they are especially necessary in India in view of the restricted openings at the moment for progressive employment.

(b) Employment Bureaux, if they are to fulfil successfully the functions set out in this chapter, must be staffed by trained experts with practical experience of teaching and of industrial conditions.

(c) While contact should be maintained with Unemployment Exchanges, Labour Tribunals, etc., established by other Departments, Employment Bureaux, which deal with the output of educational institutions, should be under the control of the Education Department.

(d) It is estimated that the gross annual cost of running Employment Bureaux (apart from those separately established by institutions of University rank) will amount to Rs. 64,00,000. This should be regarded ultimately as a normal part of administrative expenditure.

CHAPTER XII.

ADMINISTRATION

1. No scheme of educational reconstruction will produce the desired result unless it is administered with vision and efficiency. The new arrangements set out in this report, in view of their scope and complexity, will create problems which will call for the exercise of both these qualities in a high degree.

Apart from a number of educational institutions of an All-India character, which together with the Centrally Administered Areas come under the control of the Government of India, responsibility for all forms of education in their areas rests with the Provincial and State Governments.

2. No attempt has been made in this report to deal in any detail with the problem of the organisation of public instruction in the Indian States. Some of the larger States are already in advance of the rest of India in the provision which they make in this respect and it may be assumed that they will be anxious to keep pace with any reconstruction scheme that may be introduced in British India. In the case of those States which do not constitute economic units for educational development on a large scale, the solution may be found in grouping them where geographically convenient or in attaching small states to larger ones which are contiguous. Small isolated states may also arrange to participate in the facilities of the nearest educational unit in British India. It will clearly be desirable that arrangements should be made particularly in the higher stages of education for all States to have access to institutions in British India and *vice versa*.

3. So far as British India is concerned, it would seem inevitable that for geographical, historical and other reasons the Provinces should remain the main units for administrative purposes, except in regard to University and higher Technical education, which will be dealt with later. It is true that in several respects some of them are by no means ideal as administrative units for education. It is also clear that the establishment of a national system on the scale contemplated in this report will involve (a) much closer cooperation between the Central and Provincial Governments, (b) the breaking down of inter-Provincial barriers, (c) financial arrangements weighted in the interest of the poorer areas.

4. With regard to (a) there can be little doubt as to the necessity of an All-India system of education being planned on an All-India basis and this for economic and other reasons will involve close cooperation between the Centre and the Provinces. In virtue of what has been achieved in recent years the Board feel that their constitution may provide the framework for the cooperative machinery required, though it will need to be strengthened and provided with enlarged authority and an adequate staff. Apart from the need for national planning and for coordination of effort on a national basis as the plans are carried into effect, the consequential reform of educational finance, whatever the precise form it may take, will almost certainly involve some kind of subsidy from Central to Provincial revenues. This need not, however, entail any onerous interference by the Centre in Provincial affairs : indeed in the Board's opinion it would be impracticable as well as undesirable for the Centre to intervene in the sphere of local administration. At the same time there will have to be some effective liaison between the Central and Provincial Education Departments in order that the former may not only advise and assist the latter in conforming to the general scheme but may also ascertain that the central subsidies are being spent on approved developments. A similar arrangement has been working in England for many years with surprisingly little friction

and increasing benefit to all concerned; once a consciousness of identity of interests has been established, there is no reason why a similar degree of cordial cooperation should not be achieved in India. The prospects of this will be substantially enhanced, if arrangements can be made for the interchange of administrative officers on the lines envisaged by the Board in their report on the Recruitment of Education Officers, 1943.

5. With regard to (b) it is clear that the location of technological and research institutions must be largely determined by industrial and commercial requirements and not by Provincial areas. It is at the same time essential that in a national system, students, whatever their place of origin, should have access to those institutions which provide the special training which they need. To make this possible reciprocal arrangements will be required for the admission of students and there must be an All-India body to see that these arrangements are effective and generally to control and coordinate development. Suggestions as to the way in which a National Council for Technical Education should be constituted have been made in Chapter V.

The arrangements proposed for ensuring coordination of University education on an All-India basis have been set out in Chapter IV.

6. With regard to (c) it is impossible to forecast at this stage what form the future arrangements for financing a national system of education will take. That they will require a drastic change in the existing system is obvious and that substantial assistance from Central revenues will have to be forthcoming is extremely probable. This assistance may take the form of block grants for approved schemes or for a period of years or of a percentage of approved expenditure, which may vary at different stages of education, or of a percentage of expenditure under various headings such as teachers' salaries, special services and so on. But whatever the form it takes, unless the whole cost of education becomes a charge on Central revenues, which is unlikely, it will be equitable to weight the formula adopted in the interests of those Provinces whose own revenue-producing capacity is below average.

7. It will be for Provincial Governments to make such changes in their administrative arrangements as may be necessary to enable a reconstruction scheme on a large scale to be carried out properly. It may, however, be useful to make certain observations in the light of past experience.

It appears to be generally agreed by those competent to judge—Provincial reports have been eloquent on the subject for years past—that a great mistake was made when the administration of education, particularly in the lower stages, was handed over to local bodies. In theory it is a good thing to enlist local interest in education and there is much to be said for delegating a certain amount of control to local bodies, provided that they are competent to exercise it. In practice, however, irremediable harm has been done by handing over responsibility for the education of the rising generation to bodies whose members are in the main uneducated or uninterested in education or both. The situation becomes still worse when local bodies do not possess the funds which they would require to discharge their duties properly, even if they were willing and able to do so. It is unnecessary to repeat here the charges of irresponsibility, incompetence, ill-treatment of teachers, religious and political bias, nepotism and other forms of graft which make such frequent and gloomy reading in the Provincial reports. It is significant that several of the popular Governments which attempted to introduce educational reforms on a large scale, found their efforts to a large extent vitiated by the apathy and incompetence of local bodies.

8. It would, therefore, appear essential that before embarking on their reconstruction programmes Provincial Governments should resume all educational powers from local bodies, except where they are satisfied that these are competent to undertake the enlarged responsibilities. In order, however, to retain local interest in education as far as possible it is contemplated that where sufficient people with the requisite knowledge, enthusiasm, integrity and standing are prepared to offer their services, School Boards should be established to deal with Basic (Primary and Middle) Schools in areas of suitable size as well as bodies of School Managers for individual schools. The members of these bodies in both cases should be nominated by the Provincial Education Department and it cannot be too strongly emphasised that they should on no account be set up, unless enough people of the right kind are available to serve on them. Schools maintained by private bodies will as a rule have boards of managers of their own. The School Board should appoint one or more of its members either to serve on the Managing Body of each recognised school (Government or Aided) in its area or, where there is no managing body, to take a personal interest in the welfare of the school. The powers of these bodies may be gradually enlarged, as and when they prove their value but should in no case include any control over the appointment, promotion, transfer or dismissal of teachers. Where such bodies after a reasonable period of trial show themselves apathetic or inefficient, they should be at once abolished.

As enlightenment spreads and interest in education increases, it may be both desirable and practicable to establish Education Committees for larger districts with such functions, advisory and/or executive, as circumstances may suggest and at the Provincial centre an Advisory Board on somewhat similar lines to the Central Advisory Board of Education.

9. Whatever may be the precise form of the administrative arrangements which Provincial Governments may regard as essential in order that a national system of education may be established and controlled on efficient lines, it is obvious that its success must very largely depend on the calibre of the paid administrative service. Here as elsewhere drastic changes in the existing system will be necessary.

Two years ago the Bengal Government called the attention of the Board to the serious deterioration in the standard of the educational administrative service. They ascribed this partly to the gradual dying out of Indian Educational Service but mainly to the deliberate depression of the status and emoluments of Education Officers in comparison with those of officers of other Imperial and Provincial Services and to the prevailing practice of filling vacancies in the higher grades by promoting from the lower and thus precluding the recruitment of candidates with first-class qualifications who would not be prepared to apply for entry to the lower grades. All the other Provincial representatives on the Board echoed Bengal's concern and a Committee was appointed to examine the question of the recruitment of Education Officers. The report of this Committee, to which reference has already been made, was unanimously adopted by the Board at their meeting in January 1943. It advocates the following grades and salaries for Education Officers :—

Assistant Inspectors	..	Rs. 150—10—250 (Efficiency Bar)/10—350 p. m.
Deputy Inspectors	..	Rs. 250—15—550 (Selection Grade)/20—750 p. m.
Grade I	..	Rs. 400—25—1000 p. m.

Special Posts, including Chief Inspectors (Male and Female), Deputy Directors of Public Instruction, Directors of Public Instruction.	} The number and remuneration of these will mainly depend on the size of the area.
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10. The need for creating a strong Education Department at the Centre in order to provide the stimulus and assistance which the establishment of a national system of education will require has already been mentioned, and it is obvious that the essential co-operation between the Centre and the Provinces would be facilitated and strengthened, if the senior officers of both were not only interchangeable but also conscious of belonging to the same service. While the Board, however, accepted the view of their Committee that as things now are, the establishment of an All-India education service in succession to the Indian Educational Service was impracticable, they emphasised the need for arrangements for the interchange of administrative officers between the Provinces and the Centre and between one Province and another. The administrative problems raised by the introduction of a national system of education are so vast and complicated that they necessitate further consideration of this particular point. A possible solution may be that there should be one senior educational service for the whole of British India but in order to ensure a fair amount of representation to individual provinces some posts should be filled through the Federal and others through Provincial Public Service Commissions, the number in each case to be determined according to the ratio which the approved establishment of such posts in the Central or Provincial service, as the case may be, bears to the approved establishment for the whole country. Officers appointed through either channel should be regarded as equal in status and equally eligible for promotion or for transfer. It need hardly be added that the remuneration and general conditions applicable for this proposed service must be such as to make it not less attractive than other senior Government services.

11. Another point needs stressing. The Director of Public Instruction should be responsible to Government for the general administration of education (other than University and higher Technical education) throughout the Province. For this purpose he should be Secretary for Education, if such a post is really necessary, as well as Director of Public Instruction. There can be no possible justification for interposing an officer without an expert knowledge of education between the Director of Public Instruction and the Minister or Board to whom he should be directly responsible.

12. Steps must also be taken to ensure closer coordination between a national education service and the other services with which it is closely connected. Complaints have not been unknown in the past that Commissioners, Collectors and other district officers have been ignorant of or have even deliberately ignored the policy of the Provincial Government in regard to education so far as it has affected their particular areas. The extent to which the successful functioning of a national system of education will depend on the cooperation of all concerned need hardly be emphasised, and it may be assumed that when such a system is introduced, both the Central and Provincial Governments will take steps to see that their policy is not only known to but is also loyally carried out by all their officers, whatever their status may be.

13. Summary of the main conclusions in this chapter :—

(a) The Provinces should remain the main units for educational administration except in regard to University and higher Technical education, the activities of which should be co-ordinated on an All-India basis.

(b) In the event of the Indian States taking part in educational development on an All-India scale it may be necessary in order to form economic educational units to group the smaller ones or attach them to larger States or contiguous Provinces.

(c) A national system of education will require much closer co-operation, financial and otherwise, between the Central and Provincial Governments.

(d) Provincial Governments should be left to make such changes in their administrative arrangements as the carrying out of education developments on the scale contemplated may require. Experience, however, suggests that they would be well-advised to resume all educational powers from local bodies, except where these are functioning efficiently.

(e) In order to enlist local interest in education, School Managing Bodies, School Boards and District Education Committees may be constituted, if and when sufficient people of the right type are available to serve on them. An Education Advisory Board for the whole Province may be desirable.

(f) A strong Education Department will be required at the Centre and in this connection the scope and functions of the Central Advisory Board should be enlarged.

(g) Steps should be taken in accordance with the recommendations of the Board's Committee on the Recruitment of Education Officers (1943) to check the present deterioration in the status and calibre of the educational administrative service and to enable it to secure the services of the type of officer who will be capable of carrying a scheme of the kind contemplated into successful operation.

(h) Arrangements should be made for the exchange of officers between the Centre and the Provinces and between one Province and another. The desirability of establishing a senior educational administrative service on an All-India basis should receive consideration.

(i) The Director of Public Instruction should be directly responsible for the general administration of education, other than University and higher Technical education, throughout the Province. He should also be Secretary for Education, should it be thought necessary to keep in existence a separate post of this kind.

(j) Provision has been made under each separate branch of education for the cost of administration which may be estimated at 5 per cent. of the gross annual expenditure.

CONCLUSION

[The figures and estimates contained in this report refer, unless otherwise stated, to British India only.]

From the figures given at the end of each of the foregoing chapters it will be seen that the estimated annual cost of the various branches of a national system of education on the lines recommended therein, if rounded off to the nearest lakh, will work out as under when the system is in full operation. It should be fully realised that these estimates are based on pre-war standards both in regard to population and cost of living.

	Estimated gross annual expenditure.	Estimated income from sources other than public funds.	Estimated net expendi- ture to be met from public funds.
	Rs. in lakhs.	Rs. in lakhs.	Rs. in lakhs.
1. Basic (Primary and Middle) Education	200.00	—	200.00
2. Pre-Primary Education	3.20	—	3.20
3. High School Education	79.00	29.00	50.00
4. University Education	9.60	2.90	6.70
5. Technical, Commercial and Art Education	10.00	2.00	8.00
6. Adult Education	3.00	—	3.00
7. Training of Teachers	6.20	1.70	4.50
8. School Medical Service*	—	—	—
9. Education of the Handicapped*	—	—	—
10. Recreative and Social Activities	1.00	—	1.00
11. Employment Bureaux†	60	—	60
12. Administration‡	—	—	—
Total ..	312.60	35.60	277.00

* An amount equal to 10 per cent. of the gross expenditure at the appropriate stages has been provided to meet the cost of the School Medical Service and Education of the Handicapped.

† Special provision has been made for this service in the beginning; ultimately it should be absorbed in Administration.

‡ Provision to cover the cost of Administration has been included at all stages. It is assumed that this will approximate to 5 per cent. of the gross expenditure.

It would appear from the statement above that the annual net cost of a national system of education, when in full working order, will amount to Rs. 277 crores approximately. From this should in theory be deducted the amount of money now being spent from public funds on the provision of various forms of education and some deduction should in fact be practicable in the initial stages. In 1940-41 out of a total expenditure of about Rs. 30 crores, Rs. 17½ crores came from public funds. As already explained, however, it has been thought advisable to work out the cost of the national system as if a start had to be made from the very beginning and it may be desirable to reckon the sum now spent on education from public funds as a reserve towards meeting the cost in part at any rate of providing for the prospective increase in population during the period which must elapse before a national scheme is in full operation.

2. For reasons explicit in the report it would be impossible, even if all the funds required were available, to give complete effect to the proposals which it contains in a period of less than 40 years. While it is impracticable, at so early a stage and before plans on a provincial basis have been prepared, to indicate the precise steps necessary to implement a scheme of this magnitude, it may be suggested that the first five years should be devoted to planning, propaganda and particularly to the provision of the institutions necessary for training teachers and that thereafter the actual carrying out of the scheme should be divided into seven five-year programmes, during each of which an area or areas—there is no reason why these should be contiguous provided that

each is of adequate size—should be fully dealt with. The size of these areas in the case of each Province will be determined during each programme period by various factors, of which the supply of teachers available will be the most important.

3. The table below indicates very roughly indeed the probable incidence of the additional expenditure involved by the scheme outlined in the preceding pages. It assumes that during the first five-year or preparatory period expenditure on education will increase by Rs. 10 crores. This is a purely hypothetical figure and how the cost will be distributed over the different areas or over the different branches of education in each area it is impossible to forecast at this stage. While in most cases the bulk of it will no doubt be spent on training administrative and organising personnel, on experiment and reasearch and on establishing colleges and schools for training teachers of different types, it is possible that a considerable amount will have to be devoted to technical instruction and research, particularly with a view to supplying the technicians required for other urgent spheres of post-war reconstruction. In some areas also the responsible authorities may desire to devote any extra money available to bringing their existing provision up to standard before exploring new fields.

After the first five years the incidence of expenditure has been calculated in accordance with the estimated output of additional teachers, which, as already explained in Chapter VII, will depend largely on the expansion of the High School system. On this basis and on that of pre-war standards both in regard to school population and cost of living, the figures for the first twenty years have been worked out as accurately as possible. Thereafter they may be taken as an approximate indication of the rate at which expenditure will increase until the peak of expenditure on the scheme is reached. Owing to the incremental factor in teachers' salaries this will be a few years after the scheme itself has been fully implemented.

TABLE.

Approximate incidence of increased cost of education involved by the adoption of the Board's proposals.

5th year	..	..	Rs. 10,00	lakhs.
10th „	..	..	Rs. 23,80	„
15th „	..	..	Rs. 37,40	„
20th „	..	..	Rs- 61,45	„
25th „	..	..	Rs. 106,00	„
30th „	..	..	Rs. 165,00	„
35th „	..	..	Rs. 250,00	„
40th „	..	..	Rs. 312,00	„

N. B.—It is assumed in the above table and throughout this report that capital expenditure on school sites and buildings will be met out of loan in future. Provision has accordingly been made for interest and sinking fund charges only.

4. It will be quite clear that in whatever way the financial responsibilities for a national system may be divided between the Central and Provincial Governments, the total expenditure involved will amount to a figure which will render necessary a drastic reconsideration of the whole basis on which education is financed. Any re-allocation of the financial burden between the Centre and the Provinces should also have regard to variations in the revenue producing capacity of different areas. These questions must be settled before any start is made, because even though, as indicated in the table, the sums required during the early programme periods may not perhaps

appear to be beyond existing resources, it must be realised that the pace will accelerate in the later stages and that once a beginning has been made there can be no stop until the end has been reached.

5. In regard to the large financial issues raised by these proposals, the Board realise that the cost of education like that of other essential services must ultimately be met out of current revenues and that this will not be possible unless the taxable capacity of the country is increased many times. For this they can only look to an all-out development of the national resources through a rational expansion of industry on the one hand and the improvement of agriculture on the other. They believe, however, that neither of these will be possible without a wider extension of educational facilities and the spread of enlightenment and expert knowledge which this will promote. Indeed they are convinced that the development of India's economic resources and the expansion of her social services are inseparably connected and must proceed side by side. To enable a start to be made some risk, perhaps even a great risk, must be taken and the Board recommend that for this purpose the early stages of development will have to be financed out of loan or out of such capital balances as may be available. In no other way can a vicious circle be broken. It is true that some diversion to the social services of sums now devoted to defence may be possible in the post-war period and there is reason to believe that a Government prepared to face difficulties might succeed in releasing for these services substantial sums now in the possession of religious bodies after fully safeguarding the legitimate claims of the bodies concerned. Whatever might accrue, however, from such sources could be no more than a useful contribution towards the total cost which would ultimately be involved. The great bulk of it can only be met out of expanded revenue. The Board have examined with the attention they deserve various proposals which have been put forward with the object of reducing the financial burden of education on a national scale. Of these the most interesting and significant is the Wardha Scheme which was issued under Mr. Gandhi's auspices some years ago. This aimed at raising the standard of craft work in basic schools to such a pitch that the sale of articles produced by the pupils would defray wholly or largely the cost of the instruction. While the Board gladly recognise that this scheme contains much sound educational doctrine which, as mentioned in Chapter 1, they have not hesitated to incorporate in their own system of basic education, they are convinced that its financial expectations, even in the very doubtful event of their being realisable under any circumstances, could only be realised at a cost of educational efficiency which they are not prepared to contemplate. They are, therefore, driven reluctantly to the conclusion that if India wants a proper system of education, she will have to follow the practice of other countries and pay for it.

6. This report began with a maxim from the West ; it may appropriately conclude with a proverb from the East. There is a Chinese saying :

“ If you are planning for one year, plant grain ;
If you are planning for ten years, plant trees ;
If you are planning for a hundred years, plant men. ”

Trees may mature more slowly and men more quickly in India than in China but the moral applies to both.

The aim of this report, whatever its imperfections, is to provide a plan for planting the men and women, without whom India cannot possibly fulfil the high destiny which the Board believe to be hers.

(Signed)—

JOGENDRA SINGH (*Chairman*).

W. H. F. ARMSTRONG.

P. N. BANERJEA.

C. V. CHANDRASEKHARAN.

MAURICE GWYER.

*M. AFZAL HUSAIN.

†PIR ILLAHI BAKHSH.

‡MIRZA M. ISMAIL.

W. A. JENKINS.

ABDUS SAMAD KHAN.

§TAMIZUDDIN KHAN.

V. T. KRISHNAMACHARI.

GEORGE LAHORE.

G. L. MEHTA.

K. RAMUNNI MENON.

GODAVARIS MISRA.

S. MOOS.

§SAYIDUR RAHMAN.

RENUKA RAY.

||M. RUTHNASWAMY.

MOHD. SAMIN JAN.

JOHN SARGENT.

H. N. SEN.

SHAH ALAM.

LEONARD G.D ' SILVA.

UJJAL SINGH.

¶R. M. STATHAM.

MALINI B. SUKTHANKAR.

I. H. TAUNTON.

S. C. TRIPATHI.

W. G. P. WALL.

P. F. S. WARREN.

ZIAUDDIN AHMAD.

D. M. SEN (*Secretary*).*January 19th, 1944*

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- * Subject to the note on pages 100-102.
 - † Subject to the note on page 104.
 - ‡ Subject to the note on page 103.
 - § Subject to the note on pages 103-104.
 - || Subject to the note on pages 104-105.
 - ¶ Subject to the note on pages 106-107.

[The members of the Board, who were not present at either of the meetings at which this report was discussed, have not been asked to sign it with the exception of Sir Meverel Statham, who came to Baroda but was prevented by illness from attending the meeting. He has signed the report subject to his note on pages 106-7.]

*NOTE BY KHAN BAHADUR MIAN M. ANZAL HUSAIN.

I have signed the Report by the Central Advisory Board of Education based on the excellent memorandum prepared by Mr. John Sargent, with certain reservations.

The first point I wish to refer to is contained in the last paragraph of item 3 of the Introduction. "A word of warning based on experience elsewhere is necessary against any proposal on economic grounds to apply compulsion only for basic primary stage, in the first instance and then to extend it gradually upward as circumstances allow and finances permit. If, as would appear to be the case a universal compulsory system of basic education can only be introduced by stages, the progression should clearly be from area to area and not from age to age".

Emphasis has been laid more on the duration of the course of education than on the standard of attainments to be aimed at. Experience of other countries may not help us, because, so far, they have all followed the old method of educating children, based on books and black-boards—a very slow process for the present age. It may be safely claimed that if aids to education which Science has placed in the hands of man, are *fully* utilised, the progress of attainment of a child (or adult) can be hastened enormously. I refer to the use of magic lantern, epidiascope, cinematograph, gramophone, radio, etc. etc. It may be claimed with full justification that the knowledge which it would take a child weeks to acquire under the existing methods he could acquire with the help of a cinematograph in a much shorter time and with very much less strain on the teacher. As an illustration one may take such a complicated physiological process as digestion of food in man. A cinematograph could teach this process perhaps in half an hour better than it would take a good teacher weeks to teach. It is suggested that if such aids to education are fully utilised, the time required to acquire the amount of knowledge which it is necessary for a boy to possess to be able to look after himself and to make a useful citizen can be greatly reduced.

Similarly mental and intellectual development, which to a large extent goes hand to hand with acquisition of knowledge, will be a rapid process, if science is applied for that purpose also. It is suggested that experiments should be set on foot immediately to test the value of the above-mentioned aids to education.

I admit that the time factor has another aspect also. Supposing a child can be made to reach the same standard of educational attainments in 5 years as is aimed at in a 8 years' course, then what would be the occupation of the child when he leaves his school at the tender age of 11? It is maintained that for the health and proper development of such a child it is necessary that he should not be permitted to take up any occupation which is beyond his physical or mental capacity, or is physiologically or psychologically harmful to him. Here again science will come to the aid of man and it should be possible, in a country like India, where industry has not developed and, therefore, has not become stereotyped, to plan in such a manner as to take this aspect of human life into consideration. Child labour could be employed for suitable agricultural occupation and for such industries as manufacture of radio sets, cine-projectors, sewing machines, clocks, etc., etc., *i.e.*, such occupation where physical strength is not needed. In a scheme of national education there will be demand for gramophones, radio sets, etc., etc.

Area to area development will, I am afraid, have serious consequences. If in a province a certain consolidated area is taken, then the people of this area will get an advance of perhaps quarter of a century over the people of certain other areas. Because of their better education they will usurp all power in administration and industry. This will bring about serious social conflicts. Even if the unit from area

to be a development is a village out of a group of seven adjoining villages then the same consequences will result. We have experience of the result of such development, as schools and colleges were located in urban areas and the city people took advantage and received education and attained power. We have for this reason a clash of urban and rural interests in administration, industry, etc., etc. One limb of the tree will become too large. This must be avoided. Therefore, the progress should be from age to age and compulsory education must start all over simultaneously. It may be that the number of teachers required for simultaneous compulsory education may not be available. I am dealing with this matter later.

There is yet another aspect of the question. It is intended to plant into this country, in a full grown condition, a system of education which has developed gradually in a country like England. England to-day is a highly industrialised country and education prepares people for life in an industrial country. Advancement of education from stage to stage kept pace with the advancement of industries from stage to stage. India is essentially an agricultural country and is likely to remain so. Education in this country has been criticised because it is not in keeping with the requirements of the community. It is criticised because there are too many "highly educated people" for employment and many graduates take up work which should be done by matriculates and so on. Let us picture to ourselves the condition in our village to-day. It will take us very many years before we can eliminate drudgery from our farming and no one who can escape this drudgery will continue to follow this profession. If we take up the children of such a village from almost complete illiteracy and educate them by the best of means at our disposal for 8 years, will we not produce an extreme form of social revolution? Therefore it is desirable that advance in education keeps pace with the general improvement in agriculture, industries, public health, etc. etc.; it may even be in the vanguard, but it should not go too far ahead because the chain might snap. Gradualness, if it is a virtue anywhere, is a virtue in the educational field. For a rural population gradualness should be the watch-word in educational development. Stage to stage progress has advantages.

About the end in paragraph 9 of the Introduction the report refers to the formidable nature of the financial implication of the scheme. There is a general scepticism regarding the funds being available, and some feel that the ship of educational development may strike against the rock of financial implications and founder. It is, therefore, suggested that if financial implications are too formidable, the educated people of the country be conscripted for the purpose of educational development. Every Matriculate before he is admitted to a University Course must undertake some teaching work. Every Matriculate or Graduate who seeks employment must have done at least two years teaching work. That at once raises the question of the training of teachers. Here one may frankly state that some sacrifice in quality may be essential for the sake of quantity. Those who cannot get cakes must live on bread. Moreover, I would like to repeat that if aid of Scientific implements is available, perhaps the duration of teachers training course could be reduced and efficient teachers could be produced in a much shorter time than we do at present. For those who may doubt this it is suggested that an experiment may be set on foot immediately where two sets of teachers be trained—one with the fullest use of such apparatus as magic lantern, cinematograph, gramophone, etc., and the other according to the existing system.

Regarding Nursery Schools my opinion is that such education should not be free but should be paid for, at any rate, till such time that a fair number of the population are able to take advantage of it. It will be perhaps after several decades that

pre-nursery education would be possible in rural areas in India.

Regarding University education I hope it will be made absolutely clear that the University Grants Committee will be a co-ordinating agency which will advise and guide but will not control Universities.

I do not agree that the present Intermediate course has no place in University education. Properly planned it can be a most useful course of study. Such a planned course exists on the science side for Medical and Engineering degrees. Similarly there should be a course preparatory for the degree courses in a University. Transference of a year to the school will, I am certain, lower the standard and not raise it. Further, when the medium of instruction in the high schools has been changed into the mother tongue, the standard of English is bound to go down at the matriculation stage and if English remains the medium of instruction for the degree courses, difficulties will arise. A preparatory course for the University will become a greater necessity. In an Intermediate course English will receive greater attention and subjects which are prerequisite for the degree courses will be studied. The Headmasters of Public Schools have drawn attention to the position of English as medium of instruction and have laid emphasis on this point.

At present the Universities deal with Governments through their Department of Public Instruction. It is suggested that the Universities should deal with Governments through their Chancellors.

Regarding the age of complusion I adhere to the Inter-University Board resolution i. e. age five to thirteen.

CHAPTER V—TECHNICAL, COMMERCIAL AND ART EDUCATION.

Item 20 of the main conclusion.—It is suggested that the administration of all technical education should be under the Education Department. The intention, however, is that all technical education, the standard of which is comparable to a high school standard, be under the Education Department. To this there is no objection, but technical education beyond that standard should be either under the University or under the control of the Department concerned, for instance, medical education under the medical department, agricultural education under the agriculture department, forest education under the forest department and so on. This is necessary because education and research go hand in hand in all technical and professional institutions and research is canalised for the departmental needs.

CHAPTER VII.

Fullest use should be made, after the War, of the centres established for the training of officers for the training of teachers. Moreover ex-soldiers should be encouraged, on return to civil life, to take up the teaching profession. The training received in the Army, the experience which such men have gained, would enable them to take up teaching work very efficiently after a very short training.

Educational Museums.—There is one aspect of education which has been completely ignored in this report and that is the development of educational museums. Both as a means of educating the young and as a means of educating the adult, museums are a force with tremendous possibilities. Teaching museums and particularly science museums must be developed extensively. Science museums are comparatively recent developments in Europe and America, but their utility and efficiency as a means of public instruction has already been proved. No scheme of education can be complete without paying attention to this aspect of this question.

(Sd.) M. AFZAL HUSAIN.

‡ NOTE BY SIR MIRZA MOHAMMAD ISMAIL.

I would like to enter the following note :

It is essential that the autonomy of the universities should be maintained, and the functions of the Central Grants Committee, if created, should not exceed the limits set in Resolution 7 of the Inter-University Board, December, 1943. (cf. Page 107)

(Sd.) MIRZA M. ISMAIL.

§ NOTE BY THE HON'BLE MR. TAMIZUDDIN KHAN AND THE HON'BLE KHAN BAHADUR SAYIDUR RAHMAN.

It will, we think, be universally acknowledged that the Report of the Central Advisory Board of Education on Post-War Educational Development, the main credit for which is due to Mr. Sargent, the Educational Adviser to the Government of India, is worth its weight in gold. No previous endeavour of a similar character can approach it in insight and boldness of conception. It will, we hope, prove to be an epoch-making document. The proposals may appear to be Utopian to people devoid of imagination, but we are convinced that nothing short of a superhuman effort as envisaged in the Report will break the educational-cum-economic vicious circle in which we have hitherto been blindly moving and place our country on its way to an era of progress and development in conformity with the other civilized countries of the world. We are in general agreement with the views expressed in the Report and have no hesitation in subscribing to it subject, however, to the following dissenting observations :

Post-war development in India, whether in education or industry, will depend largely on her political status and the character of the constitution that may be eventually set up. The latter will in their turn as far as one can see, depend upon the attitudes of the peoples of this country and of the British nation. The latest attitude of the British Government in so far as it has found expression in the Cripps proposals clearly indicates the possibility of the country being divided into several independent Dominions or States. If we keep this main background in view, it should be understood that the control of certain branches of educational activities spoken of in the Report must mean control either by one central authority or by several central authorities, as the case may be, in their respective spheres of jurisdiction. Be that as it may, we are not in favour of the centralization proposed which, we think, will be a retrograde step. The immensity of the size of this country, which is as large as the whole of Europe minus Russia, and the racial, linguistic and cultural differences in the vast mass of its population comprising one-fifth of the entire human race, must rule out such proposals for centralisation based on the analogy of what may obtain in England or other European countries. Further-more, irrespective of whether the country is politically partitioned or not, its future constitution must be, to all appearances, of a federal character and the units constituting the Federation or Federations, viz., the Provinces, must be, in themselves, fully autonomous states. Proposals calculated to detract from the autonomy of the Constituent States such as the establishment of controlling central authorities cannot therefore be acceptable. The argument in favour of a central control on the score of the Centre bearing the bulk of the financial burden is plausible but not convincing. The plain fact that on the strength of an argument like this central control even of Primary Education can be advocated equally strongly, shows its futility. All such arguments arise out of a confused vision of the future political status and constitution of the country. Under the expected regime the constituent States of

the Federation or Federations must enjoy not only political but also fiscal autonomy. In order that they may efficiently function as autonomous states, their revenue-producing capacity will have to be adequately enhanced and many of the sources of taxation out of which the Centre or Centres can expect to raise the money necessary to meet the heavy expenditure involved in the scheme contemplated in the Report as well as in the many other schemes of post war reconstruction now under preparation, will have to be allocated to the Provincial Governments. Whatever additional financial assistance may still be necessary to implement this scheme should be given by the Centre in a spirit of friendly helpfulness and not for the purpose of control. In our view such help should best be given by way of subvention to the Provincial Governments and not as direct grants-in-aid to the institutions concerned. We do not mean, however, that there is no room whatsoever for the setting up of Central educational bodies. Such bodies established for the purpose of coordination, maintenance of uniform and adequate standards and prevention of overlapping will be useful. But they can and should be advisory in character.

There is one other aspect of the Report over which we do not feel happy. Another half a century to elapse before the scheme can come into full operation is a dismal contemplation. The busy world is not going to wait for us. We must keep pace with the rest of progressive humanity or lag for ever behind. The speed of progress envisaged in the Report must at least be doubled if not quadrupled, no matter even if we have to resort to means and methods, as Russia did on emancipation from the Czarist regime.

(Sd.) TAMIZUDDIN KHAN.

(Sd.) SAYIDUR RAHMAN.

† NOTE BY THE HON'BLE PIR ILLAHI BAKHSI NAWAZALI.

I agree with my Honourable friend the Minister of Bengal that education should not be a central subject and that the time for the scheme be reduced.

(Sd.) PIR ILLAHI.

|| NOTE BY MR. M. RUTHNASWAMY.

While cordially welcoming the "Grand Design" of the Report by the Central Advisory Board of Education on Post-War Educational Development in India, I regret I must enter a few *caveats*.

1. In the historical introduction to the several chapters justice should have been shown to the work done in the past. In the Introduction on page 6 of the Report, the phrase "in a country where apathy and inertia have reigned so long" hardly does justice to the honoured name and efforts of Mr. Gokhale, 40 years ago to rouse the country and the Government to the need for compulsory primary education or to the 40 years old scheme of compulsory education in the Baroda State or to the statutes enabling compulsory primary education to be introduced in many parts of the country passed by popular Ministries under the Montagu-Chelmsford Reforms. And in the chapter on University Education (page 28 of the Report) only the Delhi University gets honourable mention by name.

2. The problem of religious education does not get the attention it deserves, although the importance of religious education is acknowledged. A whole chapter

should have been devoted to a discussion of the ways and methods by which it may be incorporated in the educational system of the country — especially of the difficulties by which it is surrounded. I am glad that a Committee of the Central Advisory Board has been formed to deal with this question. May I recommend to the Committee the consideration of the Scottish system of provision for religious education in schools, which reconciles the freedom of denominational schools with the needs of the State ?

3. In regard to Pre-Primary Education I am afraid the State would take too much on itself if it is going to provide for this kind of education also — too much for the efficiency of the educational system and too much for the freedom of the family and the individual. The ominous example of Russia is quoted. This taking up by the State of the making of the child from the age of 2 or 3 years leaves little room for education by home and by the mother. Provision is to be made against mothers being at work away from their homes. I am hoping and praying that this evil of western industrialism — mothers at work in factories — will not be reproduced in India. Nothing, not even the brightest and most up-to-date nursery school, can be a substitute for the influence of the mother, even an illiterate mother, in regard to the earliest education of the child. Education in the traditional and social ideas and emotions of the people can be done only through the mother. We want to breed human beings not State-cells. And the prospect of a thorough State-bred population is appalling.

4. In regard to the application of the selective principle for the selection of pupils for higher education, care should be taken that it is not worked to the detriment of the supply of higher education to members of the backward communities. Provision should be made for vocational guidance in every school.

5. As regards University education, I am not in favour of the three years' course for the ordinary B. A. degree examination. The comparatively low age (16 years) at which students are allowed to enter Indian Universities, the different character and methods of instruction imparted at the school and the University, the difference in the life lived by students at school and the University require that the Indian student should spend 4 and not 3 years at a University. The experiment at Delhi University may be watched. The lesson of the Mysore University, which tried the 3-year period and has now gone back to the 4-year period, may make University reformers pause before they accept the 3 years' period as a sound one for Indian Universities.

6. The financing of the scheme and the consequent control by the Government of India may raise doubts and fears in the minds of those that are concerned with the constitutional progress of the country. Education is a field primarily requiring experiment, and provincial variations will add to the richness of Indian education. If there is to be subvention by a wealthy Central Government, which can afford to finance education, besides essential central services like defence and foreign affairs, it can be done only with due regard to Provincial autonomy, which may become in the future even more extensive than it is now.

Subject to these observations, I subscribe to the Report as being a planned attempt at the solution of India's educational problem.

(Sd.) M. RUTHNASWAMY.

¶ NOTE BY SIR MEVEREL STATHAM.

(1) I consider the report defective in so far as it does not deal at all with the Indian Soldiers returning in very large numbers to their country after the war or with the education of their children and dependants. It has been suggested that this is a purely educational report and that that is why the problem of returned soldiers has been left out, but, in my opinion, the training of the returned soldiers and their replacement in civil life, in addition to educational concessions and probably special provision needed for their children and dependants, will be of primary importance for many years to come.

(2) The report suggests that during a long term policy of carrying out the full recommendation of the report, and spending ultimately in 40 or 50 years a total sum of Rs. 312 crores, in the first 10 years not more than about 20 crores should be raised and spent. I am entirely against this method of approach to the financial aspects of the proposals in the report. If anything constructive is really going to be done, the proposal should be taken up seriously and immediately after the war comes to a close. I consider that, both from the point of view of expediency and of finance, it would be very much better to raise a lesser sum than Rs. 312 crores immediately after the war and get to work in carrying out the main recommendations of the report immediately. Any suggestions both in regard to expenditure and policy which may take effect only 40 or 50 years hence are in grave danger of being put on one side and neglected. The ultimate huge figure of expenditure, viz. Rs. 312 crores may in itself result in an undesirable postponement of action. This figure can comparatively easily be reduced to a figure which could be raised almost immediately after the war without immense difficulty and more particularly without in any way damaging the main objectives of the report. Two main examples of this can be given immediately, while obviously there are other examples which could be quoted. The estimate of cost ultimately to be spent on attempting to make illiterate adults literate is Rs. 41.63 crores, an expenditure which, in my opinion, if all boys and girls are going to be brought under compulsion for 8 years, is entirely unnecessary. The estimated expenditure on what the report calls "pre-primary education" is Rs. 3.18 crores. Again, in my opinion, an entirely unnecessary expenditure. That there should be and must be a limited number of Nursery schools, I do not deny; but I am entirely against several millions of children, at the age of 3, being taken away from the care of their mothers and am firmly convinced that the majority of Indian opinion is behind me. Creches for working mothers are necessary but this does not arise out of the Chapter in the report on Pre-Primary education.

(3) The question of the method of selecting students who will pass from the basic schools to the secondary schools and be given opportunities to proceed to Universities and who will eventually enter the higher grades of Government service and the learned professions has been most inadequately dealt with and the methods suggested so far in the report represent a very grave danger to students of minority communities, backward communities and groups which, for whatever reason mentally, though not in any way defective, develop late. In my opinion, any educational post-war re-construction scheme must give, subject of course to a minimum fitness, an equal opportunity for all, rich and poor, those from the rural areas as well as those from the urban areas and those from backward communities as well as from forward communities.

(4) Generally speaking, the education of girls and women is disposed of in one paragraph in the introduction to the report and it has been assumed that in the future boys and girls will receive equal and similar treatment. In my opinion,

for many decades to come, the education of girls will, in a sense, still have to be treated as a special problem and the questions of separate schools, separate curriculum, the provision of women teachers, co-education and religious instruction, for example, will for a long time require the special attention of all educationists in India.

(5) I am not satisfied with the half paragraph in the report devoted to the question of religious instruction. There are few communities in India which do not regard religious instruction, and, if possible, religious instruction given during school hours, as a pre-essential of secular education and there are some communities, such as the Muslim and Roman Catholic communities, which will not receive secular education without religious education. No plan for the future can afford to neglect these facts or refuse to face these issues clearly.

(6) In one half paragraph the report deals with the question of communal and caste divisions in India. Briefly, in my opinion, there are still communities and sections of communities which cannot and will not be educated, even under a compulsory system, unless special provision continues to be made for them for many years to come. To ignore communal difficulties and to plan upon purely idealistic lines will not solve India's future educational problems. In my opinion, the difficulties of special communities, minority communities and backward communities should be stated and squarely faced. These difficulties should be realised and plans should be made to overcome them, until in the distant future no differences between communities, in so far as education is concerned, remain.

(7) I am whole-heartedly in favour of compulsion for all ; but the report signally fails to deal with the machinery for effective compulsion. Compulsion has existed for many years in many areas in India, but on the whole it has been a failure because it has not been enforced. In the Province of Madras, for example, there are many compulsory areas in which attendance, enrolment and progress have been noticeably less satisfactory than in non-compulsory areas. A plan for Universal compulsory education in India must at the very outset indicate clearly a strong, and possibly governmental machinery, for seeing that compulsion is actually effective.

(8) There are many indications in the report that Provincial autonomy, in the sphere of education, is going to be interfered with at the several stages of education. However beneficial, financial and otherwise control from the centre may be, I do not agree to going back on the constitutional advancement already made in India and interfering in any way with Provincial autonomy.

(Sd.) R. M. STATHAM.

[Cf. *Sir Mirza Ismail's note on page 103*.—Resolution No. 7 of the Inter-University Board reads—
“ If, under the scheme of educational development, the Central Government undertakes to make grants to Universities, a Central Grants Committee might be appointed and its functions will be :

- (1) To assess and distribute grants from public funds to the Universities ;
- (2) To examine and advise upon all schemes for major developments ;
- (3) To visit the Universities once in five years and make recommendations, if any, to them.

It should consist of men of academic eminence and experience of University administration in India and will work, where necessary, through provincial and regional sub-committees, but any kind of control or inspection is not consistent with the dignity and autonomy of the Universities, while the advice and co-operation of the Central Grants Committee will always be welcomed by the Universities.”]

APPENDIX

TABLE A

Estimate of Recurring Cost—Junior Basic (Primary) Schools
(When the scheme is in full operation)

Province.	No. of pupils between 6—11 years.			No. of teachers required.		
	In rural areas.	In urban areas.	Total.	In rural areas.	In urban areas.	Total.
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Assam	11,07,000	32,000	11,39,000	36,900	1,067	37,967
Bengal	63,02,000	6,92,000	69,94,000	2,10,067	23,087	2,33,154
Bihar	45,07,000	2,57,000	47,64,000	1,50,233	8,567	1,58,800
Bombay	18,77,000	6,60,000	25,37,000	62,567	22,000	84,567
C. P. & Berar ..	18,29,000	2,59,000	20,88,000	60,967	8,633	69,600
Madras	52,02,000	9,84,000	61,86,000	1,73,400	32,800	2,06,200
N.-W. F. P. ..	2,87,000	64,000	3,51,000	9,567	2,133	11,700
Orissa	8,06,000	31,000	8,37,000	26,867	1,033	27,900
Punjab	30,66,000	5,54,000	36,20,000	1,02,200	18,467	1,20,667
Sind	4,40,000	1,08,000	5,48,000	14,666	3,600	18,266
U. P.	58,07,000	8,30,000	66,37,000	1,93,567	27,666	2,21,233
Ajmer-Merwara ..	46,000	27,000	73,000	1,533	900	2,433
Baluchistan ..	6,000	2,000	8,000	200	67	267
Coorg	17,000	2,000	19,000	566	67	633
Delhi	21,000	64,000	85,000	700	2,133	2,833
British India ..	3,13,20,000	45,66,000	3,58,86,000	10,44,000	1,52,200	11,96,200
Indian States and Agencies.	86,86,000	12,98,000	99,84,000	2,89,533	43,267	3,32,800

Province	Teachers' salary and allowances.			Other expenditure.		
	In rural areas.	In urban areas.	Total.	In rural areas.	In urban areas.	Total.
	(8) Rs.	(9) Rs.	(10) Rs.	(11) Rs.	(12) Rs.	(13) Rs.
Assam	2,40,64,796	8,35,528	2,49,00,324	1,03,13,484	3,58,083	1,06,71,567
Bengal	13,69,97,820	1,80,62,903	15,50,60,723	5,87,13,351	77,41,244	6,64,54,595
Bihar	9,79,76,329	67,08,496	10,46,84,825	4,19,89,855	28,76,070	4,48,64,925
Bombay	4,08,03,851	1,72,27,375	5,80,31,226	1,74,87,365	73,83,161	2,48,70,526
C. P. & Berar ..	3,97,60,391	67,60,178	4,65,20,569	1,70,40,168	28,97,219	1,99,37,387
Madras	11,30,84,977	2,56,84,450	13,87,69,427	4,84,64,990	1,10,07,622	5,94,72,612
N.-W. F. P. ..	62,39,239	16,70,272	79,09,511	26,73,960	7,15,831	33,89,791
Orissa	1,75,21,650	8,08,903	1,83,30,553	75,09,278	3,46,673	78,55,951
Punjab	6,66,51,008	1,44,60,815	8,11,11,823	2,85,64,718	61,97,492	3,47,62,210
Sind	95,64,615	28,19,025	1,23,83,640	40,99,121	12,08,153	53,07,274
U. P.	12,62,37,139	2,16,64,207	14,79,01,346	5,41,01,631	92,84,660	6,33,86,291
Ajmer-Merwara ..	9,99,765	7,04,756	17,04,521	4,28,471	3,02,038	7,30,509
Baluchistan ..	1,30,432	52,465	1,82,897	55,899	22,486	78,384
Coorg	3,69,124	52,465	4,21,589	1,58,196	22,486	1,80,681
Delhi	4,56,514	16,70,272	21,26,786	1,95,649	7,15,831	9,11,480
British India ..	68,08,57,650	11,91,82,110	80,00,39,760	29,17,96,136	5,10,78,047	34,28,74,183
Indian States and Agencies.	18,88,22,565	3,38,80,765	22,27,03,330	8,09,23,956	1,45,20,328	9,54,44,284

Province.	Gross total cost per annum.		
	In rural areas.	In urban areas.	Total.
	(14) Rs.	(15) Rs.	(16) Rs.
Assam	3,43,78,280	11,93,611	3,55,71,891
Bengal	19,57,11,171	2,58,04,147	22,15,15,318
Bihar	13,99,66,184	95,83,566	14,95,49,750
Bombay	5,82,91,216	2,46,10,536	8,29,01,752
C. P. & Berar ..	5,68,00,559	96,57,397	6,64,57,956
Madras	16,15,49,967	3,66,92,072	19,82,42,039
N.-W. F. P. ..	89,13,199	23,86,103	1,12,99,302
Orissa	2,50,30,928	11,55,576	2,61,86,504
Punjab	9,52,15,726	2,06,58,307	11,58,74,033
Sind	1,36,63,736	40,27,178	1,76,90,914
U. P.	18,03,38,770	3,09,48,867	21,12,87,637
Ajmer-Merwara ..	14,28,236	10,06,794	24,35,030
Baluchistan ..	1,86,331	74,950	2,61,281
Coorg	5,27,320	74,950	6,02,270
Delhi	6,52,163	23,86,103	30,38,266
British India ..	97,26,53,786	17,02,60,157	114,29,13,943
Indian States and Agencies	26,97,46,521	4,84,01,093	31,81,47,614

NOTES.

(a) The population figures (excepting those for Baluchistan and Indian States) are based on the Public Health Commissioner's Report for 1940.

(b) The population figures for Baluchistan and Indian States are based on the 1931 Census. The figures for Baluchistan are liable to wide variation in view of the fact that over 80% population of Baluchistan was returned "Age unspecified."

(c) For the approximate population in the age-group 6—11, the total of four-fifths of the age-group 5—10 and one-fifth of the age-group 10—15 has been taken.

(d) The distribution of children between rural and urban areas is according to the ratios given in the Census Tables for 1941 (roughly 7:1).

(e) One teacher to every 30 pupils assumed.

(f) Salary and allowances of teachers in rural areas assumed:—

Average (Government method of calculation) of the minimum national scale for teachers in Primary Schools [Rs. 30—1—35—3 (biennially)—50 p.m.] recommended in the report of the Teachers Committee of the Central Advisory Board of Education in India i.e., Rs. 42·5 p.m.; plus 6¼% Contributory Provident Fund plus 10% house rent allowance recommended by the same Committee for teachers in rural areas.

(g) Salary and allowances of teachers in urban areas assumed:—

Same scale as for the teachers of rural areas plus 6¼% Contributory Provident Fund plus 33½% urban area allowance according to the recommendation of the Teachers Committee.

(h) 10% of the total expenditure on salaries and allowances has been provided for extra remuneration for Head Teachers, Responsible Teachers and Relief Hands.

(i) Total salary bill has been assumed to account for 70% of the total gross cost.

(j) Other expenditure which includes expenditure on loan charges, special services including school medical service, furniture, equipments etc., has been taken to account for 30% of the total gross cost.

(k) Cost per capita on the basis of the above calculation = Rs. 31·84 per annum.

TABLE B

Estimate of Recurring Cost—Senior Basic (Middle) Schools
(When the scheme is in full operation)

Province.	No. of pupils available.			No. of teachers required.		
	In rural areas.	In urban areas.	Total.	In rural areas.	In urban areas.	Total.
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Assam	4,63,000	13,000	4,76,000	18,520	520	19,040
Bengal	27,21,000	2,99,000	30,20,000	1,08,840	11,960	1,20,800
Bihar	18,88,000	1,08,000	19,96,000	75,520	4,320	79,840
Bombay	8,20,000	2,88,000	11,08,000	32,800	11,520	44,320
C. P. & Berar ..	8,04,000	1,13,000	9,17,000	32,160	4,520	36,680
Madras	23,04,000	4,36,000	27,40,000	92,160	17,440	1,09,600
N.-W. F. P. ..	1,22,000	28,000	1,50,000	4,880	1,120	6,000
Orissa	3,67,000	14,000	3,81,000	14,680	560	15,240
Punjab	13,60,000	2,45,000	16,05,000	54,400	9,800	64,200
Sind	1,81,000	44,000	2,25,000	7,240	1,760	9,000
U. P.	25,68,000	3,87,000	29,35,000	1,02,720	14,680	1,17,400
Ajmer-Merwara ..	21,000	12,000	33,000	840	480	1,320
Baluchistan ..	3,000	1,000	4,000	120	40	160
Coorg	8,000	1,000	9,000	320	40	360
Delhi	10,000	30,000	40,000	400	1,200	1,600
British India ..	1,36,40,000	19,99,000	1,56,39,000	5,45,600	79,960	6,25,560
Indian States and Agencies.	38,60,000	5,77,000	44,37,000	1,54,400	23,080	1,77,480

Province.	Teachers' salary and allowances.			Other expenditure.		
	In rural areas.	In urban areas.	Total.	In rural areas.	In urban areas.	Total.
	(8)	(9)	(10)	(11)	(12)	(13)
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Assam	1,74,77,648	5,89,232	1,80,66,880	74,90,421	2,52,528	77,42,949
Bengal	10,27,14,213	1,35,52,325	11,62,66,538	4,40,20,377	58,08,139	4,98,28,516
Bihar	7,12,69,545	48,95,154	7,61,64,699	3,05,44,091	20,97,923	3,26,42,014
Bombay	3,09,53,934	1,30,53,744	4,40,07,678	1,32,65,972	55,94,462	1,88,60,434
C. P. & Berar ..	3,03,49,955	51,21,782	3,54,71,737	1,30,07,124	21,95,049	1,52,02,173
Madras	8,69,73,005	1,97,81,918	10,67,54,923	3,72,74,145	84,69,393	4,57,43,538
N.-W. F. P. ..	46,05,341	12,69,114	58,74,455	19,73,718	5,43,906	25,17,624
Orissa	1,38,53,773	6,34,557	1,44,88,330	59,37,331	2,71,953	62,09,284
Punjab	5,13,38,232	1,11,04,748	6,24,42,980	2,20,02,099	47,59,178	2,67,61,277
Sind	68,32,515	19,94,322	88,26,837	29,28,221	8,54,709	37,82,930
U. P.	9,69,38,661	1,66,34,459	11,35,73,120	4,15,45,140	71,29,054	4,86,74,194
Ajmer-Merwara ..	7,92,723	5,43,906	13,36,629	3,39,738	2,33,103	5,72,841
Baluchistan ..	1,13,246	45,325	1,58,571	48,534	19,425	67,959
Coorg	3,01,990	45,325	3,47,315	1,29,424	19,425	1,48,849
Delhi	3,77,487	13,59,765	17,37,252	1,61,780	5,82,757	7,44,537
British India ..	51,48,92,268	9,06,05,676	60,54,97,944	22,06,68,115	3,88,31,004	25,94,99,119
Indian States and Agencies.	14,57,09,982	2,61,52,814	17,18,62,796	6,24,47,135	1,12,08,349	7,36,55,484

Gross total cost per annum.

	Gross total cost per annum.		
	In rural areas.	In urban areas.	Total.
	(14)	(15)	(16)
	Rs.	Rs.	Rs.
Assam	2,49,68,069	8,41,760	2,58,09,829
Bengal	14,67,34,590	1,93,60,464	16,60,95,054
Bihar	10,18,13,636	69,93,077	10,88,06,713
Bombay	4,42,19,906	1,86,48,206	6,28,68,112
C. P. & Berar ..	4,33,57,079	73,16,831	5,06,73,910
Madras	12,42,47,150	2,82,31,311	15,24,78,461
N.-W. F. P. ..	65,79,059	18,13,020	83,92,079
Orissa	1,97,91,104	9,06,510	2,06,97,614
Punjab	7,33,40,331	1,58,63,926	8,92,04,257
Sind	97,60,736	28,49,031	1,26,09,767
U. P.	13,84,83,801	2,37,63,513	16,22,47,314
Ajmer-Merwara ..	11,32,461	7,77,009	19,09,470
Baluchistan ..	1,61,780	64,750	2,26,530
Coorg	4,31,414	64,750	4,96,164
Delhi	5,39,267	19,42,522	24,81,789
British India ..	73,55,60,383	12,94,30,680	86,49,97,063
Indian States and Agencies	20,81,57,117	3,73,61,163	24,55,18,280

NOTES

(a) The population figures (excepting those for Baluchistan and Indian States) are based on the Public Health Commissioner's Report for 1940.

(b) The population figures for Baluchistan and Indian States are based on the 1931 Census. The figures for Baluchistan are liable to wide variation in view of the fact that over 80% population of Baluchistan was returned "Age unspecified."

(c) The number of children available for Senior Basic (Middle) Schools has been assumed to be $\frac{4}{5}$ of $\frac{3}{5}$ of the age-group 10—15.

(d) The distribution of children between rural and urban areas is according to the ratios given in the Census Tables for 1941 (roughly 7:1).

(e) One teacher to every 25 pupils assumed.

(f) Salary and allowances of teachers in rural areas assumed:—

Average (Government method of calculation) of the minimum scale for teachers in Vernacular Middle Schools (Rs. 40—2—80 p.m.) recommended in the report of the Teachers Committee of the Central Advisory Board of Education i.e. Rs. 61·5 p.m. ; plus $6\frac{1}{4}\%$ Contributory Provident Fund plus 10% house rent allowance recommended by the same Committee for teachers in rural areas.

(g) Salary and allowances of teachers in urban areas assumed:—

Same scale as for the teachers of rural areas plus $6\frac{1}{4}\%$ Contributory Provident Fund plus $33\frac{1}{4}\%$ urban area allowance according to the recommendation of the Teachers Committee.

(h) 10% of the total expenditure on salaries and allowances has been provided for extra remuneration for Head Teachers, Responsible Teachers and Relief Hands.

(i) Total salary bill has been assumed to account for 70% of the total gross cost.

(j) Other expenditure which includes expenditure on loan charges, special services including school medical service, furniture, equipments, etc., has been taken to account for 30% of the total gross cost.

(k) Cost per capita on the basis of the above calculation = Rs. 55·31 per annum.

TABLE C

Estimate of Recurring Cost—High Schools.

(When the scheme is in full operation.)

Estimated number of pupils to be accommodated in High Schools.

Province.	Junior or Middle Stage.			Senior Stage.		
	Boys.	Girls.	Total.	Boys.	Girls.	Total.
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Assam	62,814	56,233	1,19,047	51,005	52,176	1,03,181
Bengal	3,98,925	3,56,182	7,55,107	3,27,651	3,35,607	6,63,258
Bihar	2,64,375	2,34,645	4,99,020	2,04,340	1,98,749	4,03,089
Bombay	1,45,926	1,31,030	2,76,956	1,21,607	1,15,804	2,37,411
C. P. & Berar ..	1,17,470	1,11,765	2,29,235	98,429	99,816	1,98,245
Madras	3,52,021	3,33,067	6,85,088	2,87,550	2,92,205	5,79,755
N.-W. F. P. ..	21,441	15,959	37,400	17,062	13,702	30,764
Orissa	49,017	46,155	95,172	42,938	44,208	87,146
Punjab	2,19,518	1,81,833	4,01,351	1,85,239	1,54,101	3,39,340
Sind	33,006	23,226	56,232	27,842	20,874	48,716
U. P.	4,03,696	3,30,027	7,33,723	3,40,635	2,90,697	6,31,332
Ajmer-Merwara ..	4,481	3,740	8,221	4,061	3,483	7,544
Baluchistan ..	545	387	932	1,036	415	1,451
Coorg	1,200	1,088	2,288	1,130	970	2,100
Delhi	5,521	4,501	10,022	5,523	4,271	9,794
British India	20,79,956	18,29,838	39,09,794	17,16,048	16,27,078	33,43,126
Indian States and Agencies.	5,88,345	5,20,926	11,09,271	4,90,993	4,58,791	9,49,784

	Estimated number of pupils to be accommodated in High Schools.			Total no. of teachers required in High Schools.	No. of non-graduate teachers.	Salary and allowances of non-graduate teachers.	No. of graduate teachers.
	Total no. of pupils.						
	Boys.	Girls.	Total.				
(8)	(9)	(10)	(11)	(12)	(13) Rs.	(14)	
Assam	1,13,819	1,08,409	2,22,228	11,110	5,555	52,44,059	5,555
Bengal	7,26,576	6,91,789	14,18,365	70,918	35,459	3,34,74,182	35,459
Bihar	4,63,715	4,33,394	9,02,109	45,104	22,552	2,12,89,652	22,552
Bombay	2,67,533	2,46,834	5,14,367	25,718	12,859	1,21,39,217	12,859
C. P. & Berar ..	2,15,899	2,11,581	4,27,480	21,374	10,687	1,00,88,795	10,687
Madras	6,39,571	6,25,272	12,64,843	63,242	31,621	2,98,51,015	31,621
N.-W. F. P. ..	38,503	29,661	68,164	3,408	1,704	16,08,619	1,704
Orissa	91,955	90,363	1,82,318	9,116	4,558	43,02,866	4,558
Punjab	4,04,757	3,35,934	7,40,691	37,034	18,517	1,74,80,511	18,517
Sind	60,848	44,100	1,04,948	5,248	2,624	24,77,122	2,624
U. P.	7,44,331	6,20,724	13,65,055	68,252	34,126	3,22,15,797	34,126
Ajmer-Merwara ..	8,542	7,223	15,765	788	394	3,71,946	394
Baluchistan ..	1,581	802	2,383	118	59	55,697	59
Coorg	2,330	2,058	4,388	220	110	1,03,843	110
Delhi	11,044	8,772	19,816	990	495	4,67,292	495
British India	37,96,004	34,56,916	72,52,920	3,62,640	1,81,320	17,11,70,613	1,81,320
Indian States and Agencies.	10,79,338	9,79,717	20,59,055	1,02,952	51,476	4,85,94,631	51,476

TABLE C—contd.

Estimate of Recurring Cost—High Schools—contd.

Province.	Salary and allowances of graduate teachers.	Total salary and allowances of High School teachers.	Estimated expenditure on Head Teachers (10% of Col. 16).	Total of all salaries etc.	Other expenditure.	Total gross cost per annum.
	(15) Rs.	(16) Rs.	(17) Rs.	(18) Rs.	(19) Rs.	(20) Rs.
Assam	1,01,21,460	1,53,65,519	15,36,552	1,69,02,071	72,43,745	2,41,45,816
Bengal	6,45,07,893	9,80,82,075	98,08,208	10,78,90,283	4,62,38,693	15,41,28,976
Bihar	4,10,90,759	6,23,80,411	62,38,041	6,86,18,452	2,94,07,908	9,80,26,360
Bombay	2,34,29,677	3,55,68,894	35,56,889	3,91,25,783	1,67,68,193	5,58,93,976
C. P. & Berar ..	1,94,72,195	2,95,60,990	29,56,099	3,25,17,089	1,39,35,895	4,64,52,984
Madras	5,76,14,885	8,74,65,900	87,46,590	9,62,12,490	4,12,33,924	13,74,46,414
N.-W. F. P. ..	31,04,765	47,13,384	4,71,338	51,84,722	22,22,024	74,06,746
Orissa	83,04,881	1,26,07,747	12,60,775	1,38,68,522	59,43,652	1,98,12,174
Punjab	3,37,33,807	5,12,19,318	51,21,932	5,63,41,250	2,41,46,250	8,04,87,500
Sind	47,81,046	72,58,168	7,25,817	79,83,985	34,21,708	1,14,05,693
U. P.	6,21,79,108	9,43,94,905	94,39,490	10,38,34,395	4,45,00,455	14,83,34,850
Ajmer-Merwara ..	7,17,886	10,89,832	1,08,983	11,98,815	5,13,778	17,12,593
Baluchistan ..	1,07,500	1,63,197	16,320	1,79,517	76,936	2,56,453
Coorg	2,00,425	3,04,268	30,427	3,34,695	1,43,440	4,78,135
Delhi	9,01,912	13,69,204	1,36,920	15,06,124	6,45,482	21,51,606
British India.	33,03,73,199	50,15,43,812	5,01,54,381	55,16,98,193	23,64,42,083	78,81,40,276
Indian States and Agencies.	9,37,91,588	14,23,86,219	1,42,38,622	15,66,24,841	6,71,24,932	22,37,49,773

NOTES.

(a) The population figures (excepting those for Baluchistan and Indian States) are based on the Public Health Commissioner's Report for 1940.

(b) The population figures for Baluchistan and Indian States are based on the 1931 Census. The figures for Baluchistan are liable to wide variation in view of the fact that over 80% population of Baluchistan was returned "Age unspecified."

(c) No. of pupils at the Middle Stage of the High Schools has been assumed to form 1/5th of the age-group 11—14; (calculated as 1/5 of 3/5 of the age-group 10—15).

(d) No. of pupils at the Senior Stage has been assumed to form 1/5th of the age-group 14—17 [calculated as 1/5 of {1/5 (10—15 age-group) + 2/5 (15—20 age-group)}].

(e) One teacher to every 20 pupils assumed; half the total no. of teachers assumed in the Middle Stage and the other half in the Senior Stage.

(f) Salary and allowances of the teachers in the Middle Stage assumed:—

Average (Government method of calculation) of the scale Rs. 40—2—80 p.m. (as recommended in the Teachers Committee Report of the Central Advisory Board of Education in India) i.e. Rs. 61.5 per month: plus 6½% Contributory Provident Fund plus 33-1/3% urban area allowance for half the number of teachers plus 10% house rent allowance for half the number in rural areas.

(g) Salary and allowances of the teachers in the Senior Stage assumed:—

Average (Government method of calculation) of the scale Rs. 70—5—150 p.m. (cf. Teachers Committee Report) i.e. Rs. 118.7 p.m., with the same provisos as in the case of the teachers in the Middle Stage of the High Schools.

(h) 10% of the total expenditure on salaries and allowances in the High Schools has been provided for extra remuneration for Head Teachers and Responsible Teachers.

(i) Total salary bill has been assumed to form 70% of the total gross cost.

(j) Other expenditure which includes expenditure on loan charges, special services including school medical service, furniture, equipments, etc., has been taken to account for 30% of the total gross cost.

(k) Cost per capita on the basis of the above calculation = Rs. 108.66 per annum.

TABLE D

Enrolment in Universities in India.

1941-42.

University.	*No. of students in the Intermediate Classes.			No. of under-graduates.				No. of Post-graduates.			
	Men	Women	Total.	In Arts.		In Science.		In Arts.		In Science.	
				M.	W.	M.	W.	M.	W.	M.	W.
All Universities in British India.	77,313	7,759	85,072	28,950	4,022	10,039	731	5,437	648	1,266	81
Universities in Indian States.	7,654	917	8,571	1,226	133	1,178	172	76	14	55	2
Total ..	84,967	8,676	93,643	30,176	4,155	11,217	903	5,513	662	1,321	83

University.	No. of students reading for Professional degrees in											
	No. of Research students.		In Arts.		In Science.		Medicine.		Law.		Engineering.	
	M.	W.	M.	W.	M.	W.	M.	W.	M.	W.		
All Universities in British India.	305	31	152	12	5,788	743	7,438	117	2,277	1		
Universities in Indian States.	22	..	19	1	305	35	305	6	441	..		
Total ..	327	31	171	13	6,093	778	7,743	123	2,718	1		

University.	No. of students reading for Professional degrees in							
	Education.		Agriculture.		Commerce.		Total.	
	M.	W.	M.	W.	M.	W.	M.	W.
All Universities in British India	1,957	821	1,194	..	6,294	32	1,48,416	14,998
Universities in Indian States ..	130	28	..	..	164	..	11,575	1,308
Total ..	2,087	849	1,194	..	6,458	32	1,59,985	16,306

Number of students in Intermediate classes in British India	..	85,072
Number of students in the degree classes of Universities in British India	..	78,336
Total	..	1,63,408
Number of students in Intermediate Classes in the States	..	8,571
Number of students in the degree classes of Universities in the States	..	4,312
Total	..	12,883
Grand Total	..	1,76,291

Includes students under the Boards of Intermediate Education.

TABLE E.

Progress of Adult Education Programme.

Year.	No. of teachers likely to be available.			Total no. of teachers to be engaged for literacy work.	No. of adults to be brought under instruction.	Progressive total of adults made literate.	Expenditure on literacy work. (e)	Expenditure on Adult Education. (f)	Total expenditure.
	School teachers already in service. (a)	New school teachers. (b)	Non-professional teachers. (c)						
(1)	(2)	(3)	(4)	(5)	(6)	(7)	Rs.	Rs.	Rs.
1st	Period of preparation.								
2nd									
3rd									
4th									
5th									
6th	1,50,000	10,000	20,000	1,80,000	45,00,000	45,00,000	2,07,00,000	20,70,000	2,27,70,000
7th	1,60,000	Do.	23,000	1,93,000	48,25,000	93,25,000	2,21,95,000	22,19,500	2,44,14,500
8th	1,70,000	Do.	26,000	2,06,000	51,50,000	1,44,75,000	2,36,90,000	23,69,000	2,60,59,000
9th	1,80,000	Do.	29,000	2,19,000	54,75,000	1,99,50,000	2,51,85,000	25,18,500	2,77,03,500
10th	1,90,000	Do.	32,000	2,32,000	58,00,000	2,57,50,000	2,66,80,000	26,68,000	2,93,48,000
11th	2,00,000	Do.	35,000	2,45,000	61,25,000	3,18,75,000	2,81,75,000	28,17,500	3,09,92,500
12th	2,10,000	Do.	38,000	2,58,000	64,50,000	3,83,25,000	2,96,70,000	29,67,000	3,26,37,000
13th	Over 2,10,000	Do.	41,000	Do.	Do.	4,47,75,000	Do.	Do.	Do.
14th	Do.	Do.	44,000	Do.	Do.	5,12,25,000	Do.	Do.	Do.
15th	Do.	Do.	47,000	Do.	Do.	5,76,75,000	Do.	Do.	Do.
16th	Do.	Over 10,000	50,000	Do.	Do.	6,41,25,000	Do.	Do.	Do.
17th	Do.	Do.	Do.	Do.	Do.	7,05,75,000	Do.	Do.	Do.
18th	Do.	Do.	Do.	2,00,000	50,00,000	7,55,75,000	2,30,00,000	70,60,000	3,00,00,000
19th	Do.	Do.	Do.	1,60,000	40,00,000	7,95,75,000	1,84,00,000	1,16,00,000	Do.
20th	Do.	Do.	Do.	1,40,000	35,00,000	8,30,75,000	1,61,00,000	1,39,00,000	Do.
21st	Do.	Do.	Do.	1,00,000	25,00,000	8,55,75,000	1,15,00,000	1,85,00,000	Do.
22nd	Do.	Do.	Do.	80,000	20,00,000	8,75,75,000	92,00,000	2,08,00,000	Do.
23rd	Do.	Do.	Do.	60,000	15,00,000	8,90,75,000	69,00,000	2,31,00,000	Do.
24th	Do.	Do.	Do.	40,000	10,00,000	9,00,75,000	46,00,000	2,54,00,000	Do.
25th	Do.	Do.	Do.	17,000	4,25,000	9,05,00,000(d)	19,55,000	2,80,45,000	Do.
Total expenditure							41,63,00,000	18,08,09,500	59,71,09,500

NOTES.

(a) In the sixth year this number is calculated approximately. There are at present 5,18,018 school teachers (1940-41 figures) of all types in British India. Of these a large number are either untrained or not possessed of adequate educational qualifications for the work. It is therefore estimated that there are in all likely to be about 1,50,000 who will be suitable and willing to take up the work. In the seventh and subsequent years the number is calculated by adding the previous year's figures of columns (2) and (3).

(b) This number is calculated at 50% of those newly trained in training institutions (*vide* Ch. VII). All of these will have received some training in Adult Education work as part of their course, and it is only a question of how many of them will be willing to accept the work.

(c) It is hoped to train 20,000 non-professional teachers by the end of the fifth year and thereafter to increase the number every year by 3,000 upto a maximum of 50,000. Of these it is expected that a large number will ultimately be absorbed in Adult Education work, as distinguished from literacy work.

(d) This leaves a balance of 3,65,00,000 but, as explained in Ch. VI, it will be fully covered by the number of adults who will either die or pass out of the age range and be too old for instruction before it is possible to provide for them.

(e) This is calculated at Rs. 4.6 per pupil per annum.

(f) This is calculated at 10% of the expenditure on literacy work up to the 17th year and thereafter at the balance of the permanent annual expenditure of Rs. 3 crores after meeting the expenditure on literacy work. From the twenty-sixth year the entire amount, Rs. 3 crores, will be available for Adult Education work proper.

TABLE F.

Recruitment of Teachers for the Expansion Scheme of Basic (Primary and Middle) Schools and of High Schools (Junior and Senior Departments).

Year.	Total No. of non-graduate trained teachers. (in hundreds).	No. of Pupils in Junior Basic (Primary) Schools (in thousands).					No. of teachers allotted to Junior Basic (Primary) Schools (in hundreds).	Total No. of Pupils in Senior Basic (Middle) Schools (in thousands).			Total No. of teachers allotted to Senior Basic (Middle) Schools (in hundreds).
		Class I.	Class II.	Class III.	Class IV.	Class V.		Class VI.	Class VII.	Class VIII.	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
1—5	Period of preparation.										
6	200	1,50	1,50	1,50	1,50	..	200	..	..	..	..
7	400	6,00	1,50	1,50	1,50	1,50	400	..	..	..	..
8	600	5,61	6,00	1,50	1,50	1,50	537	1,20	..	..	48
9	800	5,61	5,61	6,00	1,50	1,50	674	1,20	1,20	..	96
10	1,000	5,61	5,61	5,61	6,00	1,50	811	1,20	1,20	1,20	144
11	1,200	7,50	5,61	5,61	5,61	6,00	1,011	1,20	1,20	1,20	144
12	1,400	6,33	7,50	5,61	5,61	5,61	1,022	4,80	1,20	1,20	288
13	1,600	6,43	6,33	7,50	5,61	5,61	1,049	4,49	4,80	1,20	420
14	1,800	6,43	6,43	6,33	7,50	5,61	1,077	4,49	4,49	4,80	551
15	2,000	12,10	6,43	6,43	6,33	7,50	1,293	4,49	4,49	4,49	539
16	2,300	14,12	12,10	6,43	6,43	6,33	1,514	6,00	4,49	4,49	599
17	2,600	14,42	14,12	12,10	6,43	6,43	1,784	5,06	6,00	4,49	622
18	2,900	14,40	14,42	14,12	12,10	6,43	2,049	5,14	5,06	6,00	648
19	3,200	16,78	14,40	14,42	14,12	12,10	2,394	5,14	5,14	5,06	614
20	3,800	22,83	16,78	14,40	14,42	14,12	2,751	9,68	5,14	5,14	799
21	4,374	21,65	22,83	16,78	14,40	14,42	3,003	11,30	9,68	5,14	1,045
22	4,948	21,57	21,65	22,83	16,78	14,40	3,241	11,54	11,30	9,68	1,301
23	5,522	28,72	21,57	21,65	22,83	16,78	3,719	11,52	11,54	11,30	1,374
24	6,222	34,43	28,72	21,57	21,65	22,83	4,307	13,42	11,52	11,54	1,450
25	6,844	30,90	34,43	28,72	21,57	21,65	4,576	18,26	13,42	11,52	1,728
26	7,473	31,37	30,90	34,43	28,72	21,57	4,900	17,32	18,26	13,42	1,960
27	8,102	34,39	31,37	30,90	34,43	28,72	5,327	17,26	17,32	18,26	2,114
28	9,108	51,50	34,39	31,37	30,90	34,43	6,086	22,98	17,26	17,32	2,302
29	10,249	52,57	51,50	34,39	31,37	30,90	6,691	27,54	22,98	17,26	2,711
30	11,411	53,99	52,57	51,50	34,39	31,37	7,461	24,72	27,54	22,98	3,010
31	12,571	62,83	53,99	52,57	51,50	34,39	8,510	25,10	24,72	27,54	3,094
32	13,823	72,00	62,83	53,99	52,57	51,50	9,763	27,51	25,10	24,72	3,093
33	15,372	72,00	72,00	62,83	53,99	52,57	10,446	41,20	27,51	25,10	3,753
34	16,910	72,00	72,00	72,00	62,83	53,99	11,094	42,06	41,20	27,51	4,431
35	18,333	72,00	72,00	72,00	72,00	62,83	11,694	43,19	42,06	41,20	5,058
36	19,115	72,00	72,00	72,00	72,00	72,00	12,000	50,26	43,19	42,06	5,421
37	19,930	72,00	72,00	72,00	72,00	72,00	12,000	57,60	50,26	43,19	6,042
38	20,687	72,00	72,00	72,00	72,00	72,00	12,000	57,60	57,60	50,26	6,619
39	21,072	72,00	72,00	72,00	72,00	72,00	12,000	57,60	57,60	57,60	6,912

TABLE F—contd.

Recruitment of Teachers for the Expansion Scheme of Basic (Primary and Middle) Schools and of High Schools (Junior and Senior Departments.)—contd.

Year	No. of Pupils in High Schools (Junior Department) (in thousands).			Total No. of teachers (non-graduate) allotted to High Schools (in hundreds).	No. of Pupils in High Schools (Senior Department) (in thousands).			Total No. of graduate teachers in High Schools (in hundreds).
	Class VI.	Class VII.	Class VIII.		Class IX.	Class X.	Class XI.	
(1)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)
6	..	..	..	..	..	..	..	..
7	..	..	..	..	..	..	..	..
8	30	..	..	15	..	..	..	..
9	30	30	..	30	..	..	..	..
10	30	30	30	45	..	..	..	..
11	30	30	30	45	30	..	..	15
12	1,20	30	30	90	30	30	..	30
13	1,12	1,20	30	131	30	30	30	45
14	1,12	1,12	1,20	172	30	30	30	45
15	1,12	1,12	1,12	168	1,20	30	30	90
16	1,50	1,12	1,12	187	1,12	1,20	30	131
17	1,27	1,50	1,12	194	1,12	1,12	1,20	172
18	1,29	1,27	1,50	203	1,12	1,12	1,12	168
19	1,29	1,29	1,27	192	1,50	1,12	1,12	187
20	2,42	1,29	1,29	250	1,27	1,50	1,12	194
21	2,82	2,42	1,29	326	1,29	1,27	1,50	203
22	2,88	2,82	2,42	406	1,29	1,29	1,27	192
23	2,88	2,88	2,82	429	2,42	1,29	1,29	250
24	3,36	2,88	2,88	456	2,82	2,42	1,29	326
25	4,57	3,36	2,88	540	2,88	2,82	2,42	406
26	4,33	4,57	3,36	613	2,88	2,88	2,82	429
27	4,31	4,33	4,57	661	3,36	2,88	2,88	456
28	5,74	4,31	4,33	720	4,57	3,36	2,88	540
29	6,89	5,74	4,31	847	4,33	4,57	3,36	613
30	6,18	6,89	5,74	940	4,31	4,33	4,57	661
31	6,27	6,18	6,89	967	5,74	4,31	4,33	720
32	6,88	6,27	6,18	967	6,89	5,74	4,31	847
33	10,30	6,88	6,27	1,173	6,18	6,89	5,74	940
34	10,51	10,30	6,88	1,385	6,27	6,18	6,89	967
35	10,80	10,51	10,30	1,581	6,88	6,27	6,18	967
36	12,57	10,80	10,51	1,694	10,30	6,88	6,27	1,173
37	14,40	12,57	10,80	1,888	10,51	10,30	6,88	1,385
38	14,40	14,40	12,57	2,068	10,80	10,51	10,30	1,581
39	14,40	14,40	14,40	2,160	12,57	10,80	10,51	1,694

NOTES.

- (a) This table indicates the plan of expansion *not* taking into account the existing schools and their enrolment.
- (b) Column no.(2) indicates the total number of non-graduate trained teachers required in Junior Basic (Primary), Senior Basic (Middle) and Junior Departments of High Schools. There are 5,18,018 teachers in the existing schools of which 2,10,496 are untrained (1940-41). It is contemplated that the present no. of training institutions can only make up for the wastage of the existing no. of teachers and train the present no. of untrained teachers. Consequently they are excluded from this scheme.
- (c) Column nos. (8), (12) and (16) indicate the allocation of the non-graduate teachers to the different stages.
- (d) 4/5 of the leavers of Junior Basic (Primary) Schools are allocated to the Senior Basic (Middle) Schools, and 1/5 of the leavers of Junior Basic (Primary) Schools are allocated to the High Schools.
- (e) Column no. (20) indicates the number of graduate teachers (trained) required for the High Schools.
- (f) The ratio of teacher to pupils :—
1 to 30 in Junior Basic (Primary); 1 to 25 in Senior Basic (Middle) and 1 to 20 in the High Schools.
- (g) Wastage, mortality, failures etc are not shown in this table.
- (h) Attention is drawn to the possibility of completing the scheme of expansion in the 39th year when all the children of the age-group 6—14 will be brought under the compulsory scheme of education.

TABLE G.

Estimate of Average Annual Expenditure on Teachers' Training.

Type of School for which teachers will be required.	No. of teachers required for training.	Over 35 years period—Trainee per year	Duration of training.	Total no. of places.	Cost of training per place.	Total cost per year.
					Rs.	Rs.
Pre-Primary	33,333	952	2 years	1,904	*450	8,56,800
Junior Basic (Primary)	11,96,200	34,177	2 years	68,354	*450	3,07,59,300
Senior Basic (Middle)	6,25,560	17,873	3 years	53,619	*450	2,41,28,550
Junior Deptts. of High Schools	1,81,320	5,181	2 years	10,362	*450	46,62,900
Senior Deptts. of High Schools	1,81,320	5,181	1 year	5,181	400	20,72,400
Total	22,17,733	63,364	..	1,39,420	..	6,24,79,950
						Rs.
Total gross cost per year .. .. .	..	..	..	..	..	6,24,79,950
Estimated income from maintenance from half the total (excluding Senior Deptts. of High Schools) .. .. .	..	..	..	..	..	1,67,80,000
Total net expenditure per year						4,56,99,950

* Rs. 450 per capita includes Rs. 200 for tuition and Rs. 250 for maintenance.

Rs. 400 is the cost of tuition per capita in the University.

The table does not give details like wastage etc.

