

*Edu.* (1948) Department.

*Ms.* SERIES.

~~G.O. NO.~~

*Letter / Ms. No. 86. Edu.*

Dated

*12 - 1 - 1948.*

[Despatch Abstract.]



# Back Papers.

| G.O. | No. | Department. | Date. | G.O. | No. | Department. | Date. |
|------|-----|-------------|-------|------|-----|-------------|-------|
|      |     |             |       |      |     |             |       |

# Further Papers.

| G.O. | No. | Department. | Date. | G.O. | No. | Department. | Date. |
|------|-----|-------------|-------|------|-----|-------------|-------|
|      |     |             |       |      |     |             |       |

Ext. H. Dept. [B2]

D.O. no. 44963 B2/47-1 Edin. Dated 2/6/47

Dear

Dr. Savoor.

Sub: Educational Conference at Simla

I am to forward herewith the agenda and the connected papers relating to the Educational Conference to be held at Simla in June or July <sup>next</sup> and to request to you to <sup>arrange for the preparation of</sup> submit short notes on the subjects included in the Agenda for the use of HM (Edn).

To  
The DP.9 (by <sup>Dep. Secy</sup> <sup>Ministry</sup> <sup>76</sup> name)  
(with enclosures)

29.5.47

30.5.47

Yours sincerely,  
8/1/47



No.F.12-5/47-E.II.  
GOVERNMENT OF INDIA,  
DEPARTMENT OF EDUCATION,

CAMP SIMLA, the 24th June, 1947.

Dear

Please refer to my telegram No.F.12-5/47-E.II; dated the 16th May, 1947. The Minister for Education, the Hon'ble Maulana Abul Kalam Azad, has asked me to inform you that in view of the new political situation he has reluctantly decided to cancel the Educational Conference which was to have been held in Delhi on July 11th and 12th. He much regrets any inconvenience which this decision and the previous postponements may have caused you but feels sure that you will agree that under the circumstances they were unavoidable. He hopes that it may be possible soon after the 15th of August to convene the conference.

Yours sincerely,

(JOHN SARGENT)

To

The Hon'ble Sri T.S. Avinashilingam Chettiar,  
Minister for Education, Madras, Madras.

Ed.P. II. Dept. [B2]

This may be submitted to HM (Edn) for perusal. The previous papers have been put in answer bill.

896.  
7.7.47

7/7/47

10/7/47

HM (W)

BSA

13.7.47

16 JUL 1947

GOVERNMENT OF INDIA

Edo. H. Dept [22]

D.O. no. 44963 B2/47 Edin Dated B.7.47.

4

Deos Mr. Reddi.

Subj: Educational  
conference at Smida

I am to invite  
a reference to my D.O. no. 44963 B2/47  
Edin 21/6/47, addressed to Dr Savoor,  
and to enquire, when a reply  
to it may be expected.

Yours sincerely

LPB on  
6/7. 15.7.47

DM  
16/7/47 S

M.B.M

Note: The Edin Conference has been  
post poned to August 1947.

83/87

p.l. ante.

Do.

The DPO  
(by name).

dfw  
21.2.47

137





Director of Public Instruction,  
Cathedral P.O., Madras, 24th July 1947.

Dear Mr. Subramanian,

60607

Please see your D.O.No.44963-B2/47, Edn.,  
dated 18th July 1947 regarding the Educational Conference  
at Simla. Notes on the subjects included in the  
Agenda have been prepared with reference to the date  
of the meeting originally fixed in June. As the  
meeting has been postponed these notes have to be  
revised in the light of recent developments. I shall  
submit a reply in the course of a week.

Yours sincerely,

*[Signature]*

To  
M.V. Subramanian, Esq., I.C.S.,  
Secretary to Government,  
Education & P.H. Department,  
Fort St. George, Madras.

*Mr. Subramanian*

*may be over ltr*  
*W.S.W.*

*28.7.47*

*29/7/47*

818.11. Depl

11/26  
D.O. no. 44693 B2/47-3 Edu Dated 27/8/47

6

Dear Dr Savoor,

Educational Conference

at Simla.

p. 5-7  
I am to make a reference to my D.O. no 44963 B2/47 Edu Dated 18.7.47 to Mr. Reddi and his reply dated 24.7.47 and to enquire when a final reply may be expected.

LPB  
18/8/47

Yours sincerely

10/8/47 S 26/8/47

Do. 22/8/47  
The D.P.G.  
(by name).

7th Dec 47

del on 27 Dec 47

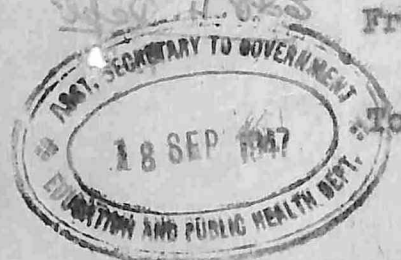
(w. x. a.)

21/1/48

21/1/48



NO.F.12-5/47-P.II.  
Government of India,  
Ministry of Education,  
New Delhi 3, the ~~13th~~ <sup>14th</sup> Sept., 1947. **IMMEDIATE.**



From

Sir John Sargent, C.I.E., M.A., D.Litt.,  
Secretary to the Govt. of India.

The Secretary to the Govt. of Madras,  
Education and Public Health Deptt.,  
MADRAS.

SUBJECT: EDUCATIONAL CONFERENCE - NEW DELHI -  
OCTOBER 6TH AND 7TH-3, 1947.

74420  
22/9

Sir, I am directed to state that it has been decided by the Govt. of India to convene an Educational Conference of the Provincial Governors, Ministers of Education, Vice-Chancellors of Universities, etc. to consider urgent educational problems confronting the country. I am to request that the Hon'ble Minister in-Charge of Education and the Director of Public Instruction of your Province may kindly be invited to attend the Conference. Personal letters are being addressed to them separately.

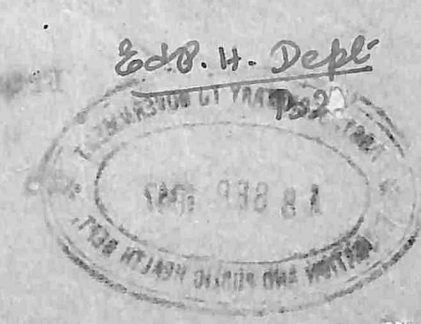
I have the honour to be, Sir,  
Your most obedient servant,

*[Signature]*  
for Secretary.

[P.T.O.]

THAKAR 4.9.

NO. 7.12-347-11.11  
 Government of India  
 Ministry of Education  
 New Delhi 2, the 1st Sept 1947  
 The Joint Secretary, C.I.E., N.A., D. 111111  
 Secretary to the Govt. of India  
 The Secretary to the Govt. of India  
 Education and the Govt. of India  
 Madras  
 I am directed to state that it is hereby  
 notified by the Govt. of India to convey to  
 the Joint Secretary of the Technical Education  
 or Education Department of Universities, etc.  
 to consider the educational problem concerning  
 the country. I am to request that the Joint Minister  
 in charge of Education and the Director of Public  
 Instruction of your Province may kindly be invited  
 to attend the conference. Personal letters are being  
 addressed to them separately.  
 I have the honour to be,  
 Your most obedient servant  
 22.9.47  
 0.7.0



12/10  
 D.O. no 44963B2/47 Edu D 3.10.47  
 Dear Dr Savor.  
 Educational  
 conference at Simla.  
 I am to invite  
 1. and reference to my D.O no 44963B2/47-11  
 Edu D 27.8.47, and to enquire  
 when a final reply may be  
 expected.  
 20. 22/10/47  
 The D.P.G.  
 (by name).  
 22/10/47 yours sincerely  
 M. 22/10/47



20 Secy. Etth.



C-3.



INDIAN POSTS AND TELEGRAPHS DEPARTMENT.

1 - OCT 1947

No.



599

9



Received here at \_\_\_\_\_ H. \_\_\_\_\_ M.

X yf Newdelhi 24 ste 3 etf wds - 38  
Honble T. S. Arinashilingam chettiar  
Minister for education Madras.

58682 F - 12 - 5/47 - E11 educational confeyence  
proposed for october sixth and  
seventh postponed owing disturbed  
conditions a letter follows Regarding  
new date and urgent concerns.

The sequence of entries at the beginning of this telegram is—class of telegram, time handed in, serial number (in the case of  
sign telegrams only), office of origin, date, service instructions (if any) and number of words.  
This form must accompany any enquiry respecting this telegram.

epso  
10/5/47  
MGIFPAh

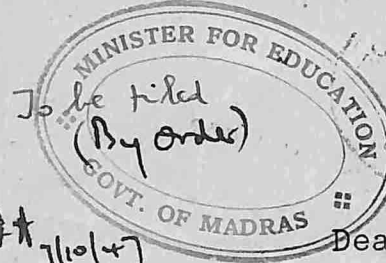
124  
abw jlo 3 sta +c iddebnk sp x

conferences 11/3 - 12/4 - 13/5  
proposed for October 1947  
Belatedly proposed owing to  
inadequate supply of letters and  
- immediate progress was made

11/10/47  
sp 10/1

No.F.12-5/47-E.II.  
Government of India  
Ministry of Education.

New Delhi, the 24th September 1947.



Dear Mr. Chettiar,



Please refer to my D.O. letter No.F.12-5/47-E.II. dated September 4, 1947. The Minister for Education, the Hon'ble Maulana Abul Kalam Azad, has asked me to inform you that in view of the present disturbed conditions in the country he has most regretfully decided to cancel the Educational Conference which he had proposed to convene in New Delhi on the 6th and 7th October, 1947. He very much regrets any inconvenience which this decision may have caused you, but feels sure that you will agree that under the circumstances this was unavoidable. He hopes, however, that it may be possible to convene the meeting to discuss current educational problems, as soon as circumstances permit.

Yours sincerely,

John Sargen

To

The Hon'ble Sri T.S. Avinashilingam Chettiar,  
Minister for Education,  
Madras, Madras.

P.P. D. Bose

R.80/24.9.47.



16

AST

NO. F.12-5/47-E.II.  
Government of India.  
Ministry of Education.

New Delhi 3, the 10th October 1947.



Sir John Sargent,  
C.I.B., M.A., D.Litt.,  
Secretary to the Government of India.

The Secretary to the Government of Madras,  
Department of Education & Public Health,  
Madras.

81570

Subject:- Educational Conference, New Delhi - October 6th  
and 7th, 1947 - Postponement.

Sir,

I am directed to refer to this Ministry's  
letter No. F.12-5/47-E.II, dated September, 13, 1947, on  
the above subject and to state that in view of the  
present disturbed conditions, it has been decided to  
postpone the Educational Conference to some more suitable  
dates to be decided upon. Personal letters intimating  
the postponement have already been addressed to the  
members of the conference.

I have the honour to be,  
Sir,  
Your most obedient servant,

B. Ghosh

For Secretary.

(TAMJA)  
9.10



18  
D.O.

19  
12  
Office of the  
Director of Public Instruction,  
Madras: Dated 21st October 1947.

My dear Subramanian,

86206  
REF:- Your D.O.No.44963 B.2/47-1aEdn.,  
dated 3rd October 1947 re: Edu-  
cational Conference at Simla.  
\*\*\*

I send herewith notes on the subjects in-  
cluded in the Agenda in connection with the  
Educational Conference which was to have been  
held in New Delhi on 6th and 7th October 1947,  
but which has been postponed for the present.

Yours sincerely,

S. R. S. S. S.

M.V.Subramanian, Esq., I.C.S.,  
Secretary to Government,  
Education and Public Health Department,  
Fort St.George, Madras.



\*MALHOTRA\* 10/12.



22



EMPPP

By air mail  
1

Letter No. 86  
Ms.

E.P.H. (C.V.) Dept.  
Edu. d. 12-1-48.

14

Copy to the D.P.S. for 12-1-48

To  
The Secretary to the Government of India,  
Ministry of Education, New Delhi.

Sir,  
Subject - Educational Conference at New Delhi.

In reply to your letter No. F. 12-22/47-B-II  
dated 17-12-1947, I am directed to state that  
the Hon'ble Mr. Ananashilingam, Minister for  
Education, along with Mr. D.S. Reddi, Dy. D.P.S.,  
will be going over to New Delhi to attend  
the fourteenth meeting of the Central Advisory  
Board of Education to be held on the 13th, 14th and  
15th instants, <sup>or will</sup> and that, therefore, it will be  
possible for the H.H. and Mr. D.S. Reddi  
to attend the Educational Conference on the 16th  
and 17th by extending their stay at New Delhi if necessary.

Mr Reddi is  
being appointed  
to assist as  
D.D. with effect  
from the 14th  
instant

AR  
8.1.48  
8/1/48  
J.M.  
8/1/48  
Y.G.S.  
2/1/48

OT6



Special

II draft

25

E & P.H. (C.E.) Dept.

Memo No. 44963A/25 - 2. Edu. 9. 12-1-48. 15

Subject. Educational Conference at New Delhi.

p. 21. g.

Ref. from the Govt. of India; No. F. 12-22/47-B.II  
dated 17.12-47.

Sri D. S. Reddi, Dy. D. P. G., who will accompany  
the H. H. (Edu) to New Delhi in connection with his  
attendance at the forthcoming meeting of the Central  
Advisory Board of Education on the 13<sup>th</sup>, 14<sup>th</sup> and 15<sup>th</sup>  
instants, is permitted to attend the Educational Conference  
at New Delhi to be held on the 16<sup>th</sup> and 17<sup>th</sup> instants, by  
order

To the Dy. P. G.  
copy to Sri D. S. Reddi,  
Dy. D. P. G.  
(Thru the Dy. P. G.)

DMR  
27.1.48

(8880)

To The Secretary E.P.&H.

Please see herewith the agenda for the conference to be held at Simla in the 1st week of June indefinitely postponed.

Notes regarding the subjects in the Agenda that have to be discussed may be prepared and kept ready. <sup>may be put up</sup> I will call for the notes as soon as the Conference is fixed up.

TSA  
26.5.47  
H.M.Edn.



A. draft do. - mtr for  
off. It appears there is no officer in-charge  
in the field for the preparation of notes on the subject  
included in the agenda.  
29.5.47  
28.5.47



From the Govt of India, Dept of Education,  
no. 12-5/47 & II D/ 13.9.47.

Secretary, E. & P.H.

I understand the Conference has been postponed further. This may  
be filed along with the previous Agenda on the subject already received.

SA

H.M. Education.

In view of the minutes of JH1 (Edw) above,  
no action seems called for.

The D.P.D. may be reminded about  
the report due from him (1.1.47)  
A draft D.O. is submitted for approval.

SPB. az  
30.9.47 30.9.47 JM  
2/10/47 S M  
pms.

P.13 of L.No. 78600 Bz/7 From the Govt of India, Telegram. 2269-47.

Please see the telegram from the Govt. of India at  
p. 13 of. No action is called for.  
The D.P.D.'s reply to the D.O. at p. 12 of.  
may be awaited till 25.10.47.

(N.11.01)

7.10.47 7/10/47

P.19 of L.No. 86206 Bz/47 From the D.P.D.; D.O. no. 10 of 21-10-47.

Please see the D.O. at p. 1 of. and the reply  
from the D.P.D. at p. 19 of. The Director has prepared  
and sent notes on the subjects included in the Agenda  
for the Educational Conference. The Govt. of India have not  
yet intimated as for the dates on which the  
Conference which has now been postponed, will be held.

(S)

(P.D.O)



will be held at New Delhi on 16th and 17th instants. The Government of India desire that the H.M.(Education) and the D.P.I., should attend the Conference. It may be mentioned here that the H.M.(Education) along with Mr. D.S. Reddi, Dy. D.P.I., will be leaving Madras by air on the 12th instant to attend the fourteenth meeting of the Central Advisory Board of Education at New Delhi which lasts from 13th to 15th instant. They have arranged to return by air on the 17th. It will therefore be possible for the H.M. to attend the Educational Conference on the 16th and 17th, his stay in New Delhi being extended by a day or two if necessary. Mr. D.S. Reddi, who will accompany the H.M. to New Delhi, will assume the office of the D.P.I. on the 14th instant consequent on the retirement of the present D.P.I., ~~Dr. S. S. S. S.~~ <sup>Dr. S. S. S. S.</sup> Therefore he (Mr. Reddi) can also (as D.P.I.) attend the Conference. A reply may be sent to Govt. of India accordingly. Orders permitting Mr. D.S. Reddi to accompany the H.M. to attend the meeting of the Central Advisory Board of Education have already issued.

The file may be circulated to H.M.(Education).



Two drafts are submitted.

As the proposal does not involve any additional expenditure, Finance need not see.

As  
7.1.48  
8.1.48

As  
8.1.48 S

4.

H.M. (Edn) may see the notes sent by the Director.

As the notes have been received from H.M. (Edn) orders

As 31.12.47

As 31.12.47

As 31.12.47

As 31.12.47

As 31.12.47

As 31.12.47

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There are seven subjects included in the agenda for the Conference. Item No.1 of the agenda is reproduced below:

"To consider what substantial modifications, if any, are desirable in the plan of Educational Development set out in the Central Advisory Board of Education's Report, in the light of experience gained since it was published. (It is proposed that the Chapters in the report should be discussed seriatim)"

The following note is submitted on the various schemes detailed in the several chapters of the report on Post War Educational Development in India of the Central Advisory Board of Education:

CHAPTER I: Basic Primary and Middle Education.

In this chapter, a system of compulsory elementary education upto and inclusive of Standard VIII for all boys and girls of ages 6 to 14 is envisaged. Along with it, the scales of pay of elementary school teachers are also given for adoption by the Provincial Governments.

In the scheme outlined in the report, it has become necessary to take into consideration existing facilities for introducing compulsory elementary education for all children of school-age in this Province. There are a large number of complete lower elementary schools which has been considered as providing sufficient foundation on which a universal system of primary education may be introduced. As a practical scheme to be taken up immediately after the war, it has been accepted by Government to introduce compulsory elementary education upto Standard V throughout the Presidency and then gradually extend the compulsion to Standards VI, VII and VIII, as these standards are added on to the lower elementary schools. With this aim in view, a scheme has been drawn up for the first five years of the Post War period to introduce compulsory elementary education. The scheme in brief is as follows:



It has been estimated that about 40 lakhs of pupils are yet to be brought under instruction, in addition to 30 lakhs of pupils now at school. For various reasons, the chief among them being dearth of trained teachers, it is obviously impossible to bring all the 40 lakhs of pupils under instruction simultaneously. As a practical measure it has been decided to bring under instruction about a third of this number within the first five years of the Post War Scheme. Though the ultimate objective is to provide compulsory free education upto and inclusive of Standard VIII, the immediate plan is to see that pupils who are enrolled in the schools are kept on till they complete their V Standard Course. As the urban areas and cities now have adequate educational facilities, it is planned to introduce compulsion in select rural centres of each district and gradually expand the scheme in each of the successive years. The probable number of children to be brought under instruction by the introduction of the proposed scheme and the cost involved are as follows:

|                  | <u>1st year.</u> | <u>2nd year.</u> | <u>3rd year.</u> | <u>4th year.</u> | <u>5th year.</u> |
|------------------|------------------|------------------|------------------|------------------|------------------|
| No. of Children: | 294,000          | 508,000          | 762,000          | 1,056,000        | 1,390,000        |
| Cost:            | Rs.44 lakhs.     | Rs.66 lakhs.     | Rs.88 lakhs.     | Rs.110 lakhs.    | Rs.132 lakhs.    |
| Total Cost:      | Rs.440/- lakhs.  |                  |                  |                  |                  |

Though the Post War period is deemed to have commenced from 1946--47, the compulsory elementary education has been introduced in about 434 select centres in the rural areas in 1945--46 already. This is intended to benefit about 170,855 pupils. In 1946--47, the number of centres selected for introduction was 645 and the number to be provided in these centres has been estimated to be 216,000.

The scheme outlined above and accepted by this Government would indicate certain deviations from the recommendations made in this Chapter. For various reasons, it has become impossible and in certain cases undesirable to proceed with the scheme of compulsory elementary education in the manner indicated in



Free supply of books and slates:- As an incentive for poor children to continue their studies, they were supplied with books and slates free of cost; the Government undertook to meet the entire expenditure of the scheme. The Government sanctioned a sum of Rs.1 lakh for distribution of free supply of books and slates to the children attending schools in the areas brought under compulsion in 1945--46 and Rs.1.67 lakhs in 1946--47.

Rules under the Madras Elementary Education Act provide for imposing penalties on parents or guardians who fail to send their children without sufficient and satisfactory reasons to schools in areas where compulsion has been introduced. A further amendment to the Act has been proposed to Government by which it is to be laid down that "no person shall take into employment any child of school going age residing in areas where compulsory elementary education has been introduced." The proposal also contemplates the cognizance of such an act as an offence punishable under Law. It has been proposed to Government that such offenders shall be liable to be ~~presented~~ <sup>prosecuted</sup> before a Magistrate on a complaint preferred by the President of the Compulsory Elementary Education Committee constituted for each area where compulsory elementary education is in force.

#### BASIC SCHOOLS.

It is proposed to introduce Basic Education in this Province in a systematic way. During 1946--47 the Government opened two Basic Training Schools to train teachers on Basic lines - one at Periyanaickenpalayam (Coimbatore District) and the other at Vinayashramam (Guntur District). Twelve L.Ts., were deputed to Wardha for training. With the services of these L.Ts. 3 more Basic Training Schools will be opened in 1947--48 - one at Uddalore (South Arcot District), the second at Palayad (Malabar District) and the third at Moodibidiri (South Kanara District).

Basic education is being introduced during 1947--48 in



about 20 schools in the Belt area in and around the Basic Training School, Periyanaickenpalayam (Coimbatore District), with the teachers trained in this school. With the trainees trained at the Vinayashramam School (Guntur District) about 24 Basic Schools will be opened in the firkas selected for Rural Development in the Andhra Desa.

It is also proposed to send another batch of about 10 candidates to Wardha this year.

A new impetus was given to teachers to undergo craft training particularly in Spinning during the summer vacation of 1946--47 and a large body of teachers took advantage of this special course.

The sanction accorded by Government for the payment of a craft allowance in the general scheme of revision of salaries will also induce teachers to qualify themselves with one of the recognised crafts within the time limit prescribed.

## CHAPTER II - PRE PRIMARY EDUCATION.

The Education Department has been and is encouraging the opening of Nursery Schools in the Province. The Government of Madras is most anxious to see that as in Western Countries the Pre-Primary Education takes a well defined place in the fabric of Public Instruction. The expert committee which went into this question met in September 1946 and made the following recommendations:

- (1) There may be nursery schools for children between the ages of 2 to 5.
- (2) There may be Nursery Kindergarten Schools for children between 2 and 7.
- (3) Provision of a certain minimum accommodation and equipment for these schools was decided upon.
- (4) Such schools may be run either as separate units, or attached to existing elementary or Secondary Schools or Training Schools.
- (5) Recognition and aid may be given in the beginning without too close an adherence to the conditions imposed in order to encourage enterprising private agencies to start such schools wherever possible.



24

A COMPARATIVE STATEMENT SHOWING THE SCALES OF PAY SUGGESTED BY THE CENTRAL ADVISORY BOARD AND THE REVISED SCALES OF PAY RECENTLY SANCTIONED BY GOVERNMENT.

Scales of pay for teachers recommended in the Central Advisory Board's report.

Scales of pay fixed by Government of Madras for teachers.

In Government Schools. In Local Bodies institutions. In schools under aided managements.

Elementary Schools:

Secondary Grade trained in  
Lower Ely. Schools: 30-1-35-3/2-50  
Higher Ely. Schools: 40--2--80  
10% to 50% of salaries ~~and~~ as allowances:  
Headmasters and Headmistresses in Lower Ely. Schools:

- A. 1-2 class Sections: Rs.10 above the scale.  
B. 3, 4 or 5: " Rs.50-4-70  
C. 5 or 6-8 " Rs.60-4-80  
D. Above 8 or 10 Rs.80-4-100

Higher Ely. Schools.

- A. 3 or 4 class sections: 80-4-100  
B. 4 or 5 to 6 or 8 " 90-4-110  
C. Over 6 to 8 " 110-4-130

High Schools:

Non-Graduate Trained: 40-2-80+6 1/4% P.F. contributions  
Graduate Trained: 70-5-150+6 1/4% P.F. contributions.  
Headmasters:  
of Schools upto 250 pupils on rolls: 175-10-225  
of schools upto 500 pupils on rolls 250-10-350  
of schools over 500 pupils on rolls 350-15-500

Elementary Schools:

Lower Ely. Trained: 23--1--33  
Higher Ely. Trained 30--1--50  
Secy. Grade Trained 45-3-60-2-90\*

No separate scales of Headmasters of Ely. Schools as such have been fixed.

High Schools (Secy.)

Secy. Grade: 45-3-60-2-90\*  
Collegiate Trained: 85-5-125-10-175:  
Senior Grade: 165-5-205-10-245  
Headmasters and Headmistresses will get Rs.25/- per mensem as allowance (Schools over 500 pupils on rolls), the rest will get Rs.10/- per mensem

\*Govt. scales are higher than that suggested by the Central Advisory Board:

Elementary Schools:

Lower Ely. Trained: 23--1--33  
Higher Ely. Trained: 30--1--45  
Secy. Grade Trained ~~45-3-60-2-90~~ 45-1-55-2-75

No separate scales for Headmasters of Ely. Schools as such have been fixed.

High Schools (Secy.)

Secy. Grade: 45-2-85\*\*  
L.Ts. 75-5-145 and incomplete High  
Headmasters of middle/ schools with 500 or less number of pupils on rolls will get in addition to L.T. scale Rs.10/- p.m. as allowance; of schools having the strength of over 500 pupils on rolls Rs.25/- p.m. as allowance other high schools: 150-10-200 strength below 500  
150-10-200+Rs.25 p.m. if strength of schools exceed 500-

\*\* Even the scales of Local body teachers is higher than that suggested by the Central Advisory Board.

Elementary Schools:

Lower Ely. Trained: Rs.18 p.m. scale of grant.  
Higher Ely. Trained: Rs.25--1/2--30 p.m. scale grant

Secy. Trained: 35-1-45 p.m.  
Collegiate Trained: 35-1-45 p.m.

The above are the scales of grant at which aid will be given to Ely. School managements. Govt. have directed that the managements should pay atleast Rs.30/- to Higher Ely. Trained teachers and Rs.40/- to Secy. Grade trained teachers under their employ.

High Schools (Secy.)

Same scales as those for teachers in local body institutions.

REMARKS:- The allowances for Headmasters sanctioned by Government are in effect the recommendations of the Central Advisory Board's Report. The percentage of selection grade officers has been raised to 33 1/3 to allow for a larger number of incumbents to get the benefits of the higher scales.



There is only one Nursery Training School at Present. But in view of the increasing demand for more teachers, Government have been addressed this year to accord permission for running two more training institutions - one in Kindergarten and the other in Montessori methods of instruction located at Mylapore and Adyar respectively. In addition to these three Nursery Training Schools, Government have accepted the proposal of the Department to open Nursery Training Course in the Lady Willingdon Training College.

### CHAPTER III: High School Education.

The scheme outlined in this Chapter is more or less on the lines of reorganization of secondary education envisaged in the Press Communique issued with G.O. No. 1339, Education, dated 17th October 1940. The aim of the scheme of bifurcated courses is to sift pupils at IV Form stage according as they are fit for University Education or to stop with the completion of High School course. The Director of Public Instruction's scheme is briefly as follows:

At Fourth Form the pupils have to be divided into two groups, one to the S.S.L.C. Course leading to University Education referred to in the Central Advisory Board's Report as "Academical" high schools and the other leading to a vocation after school course called the "Technical" high schools. Six subjects have been selected for introduction as bifurcated course, in secondary schools, viz., the Secretarial Course; Artisan Engineering Course; Agri-Horticultural Course &c., Drawing Painting and Photography; Music and Dancing; Domestic Science and Cookery. The scheme is proposed to be introduced in 1948--49 in about 50 select high schools as an experimental measure to begin with. The syllabuses for these subjects are being finalised.

The scheme is so designed as to provide facilities for girls exclusively in the subjects like "Domestic Science and Cookery".



The scheme includes the study of the regional language, English, Elementary Mathematics, and general information for those taking up the bifurcated courses.

Under the scheme proposed, it will be open to any management to have in one and the same school both the bifurcated courses and the ordinary pre-University Course, or if they so desire, to have only the bifurcated course or only the pre-University course. It is however the intention of the Government to see that all the districts in the Province are evenly and adequately provided with various courses suitable to the localities.

#### CHAPTER IV.

A new Arts College was opened during 1946--47 viz., The Vivekananda College, Mylapore. Another Arts College for Muslim Women under the management of Government was also opened during the year 1946--47.

#### CHAPTER V: Technical and Commercial Education.

A copy of the recommendations of the Technical Education Committee of the Post War Education Sub-Committee is in the next page.

In pursuance of the recommendations of the Committee, Government sanctioned the opening of two Engineering Colleges one at Cocanada and another at Anantapur (located at Guindy). The opening of these colleges afforded more facilities for the education and training in Engineering.



REPORT OF THE SPECIAL COMMITTEE ON TECHNICAL EDUCATION.

Chapter I.

Introduction:- The Special Committee was appointed under the orders of the Second Adviser to His Excellency the Governor on 2nd December 1944. The Committee was composed of the following members:

- (1) Sir Meverel Statham, M.A., C.E.E., I.E.S.,  
Director of Public Instruction, Madras: Chairman.
- (2) Sir Henry Howard, C.I.E.,  
Consulting Electrical Engineer to Government,  
Madras.
- (3) Mr. A. Khaleeli, I.C.S.,  
Director of Industries and Commerce, Madras.
- (4) Rao Bahadur Dr. B. Viswanath, C.I.E.,  
Director of Agriculture, Madras.
- (5) Mr. V. Ramakrishna, M.A., I.C.S.,  
Chairman, National Service Labour Tribunal, Madras
- (6) Mr. E.H. Chave, C.I.E.,  
Chief Engineer (General, Buildings and Defence),  
Madras.
- (7) Rao Bahadur N. Govindaraja Ayyangar, B.A., B.E.,  
Chief Engineer, Irrigation, Madras.
- (8) Mr. H.R. Dogra, B.Sc.  
Chief Engineer, P.W.D. (Communications), Madras.
- (9) Dr. J.J. Rudra, D.Sc., M.B.E.,  
Principal, College of Engineering, Guindy.
- (10) Mr. D.I.R. Muir, I.C.S.,  
Secretary to Government, Postwar Reconstruction *Depart*  
and Development, Madras.
- (11) Mr. C.H. Masterman, C.S.I., C.I.E.,  
Member, Board of Revenue, and Commissioner for  
Postwar ~~Development~~ Reconstruction, Madras.
- (12) Mr. C.R. Porrett, M.B.E., Adviser to Government  
on Manual Training, Teachers' College, Saidapet.
- (13) Lieut. Col. H.R. Irwin - Members:  
and
- (14) Rao Bahadur N.M. Adyanthaya, B.Sc.(Edin),  
Joint Director of Industries and Commerce  
Madras: Member and Secretary.

The terms of reference:- The Committee was required to report on expansion of Technical Education in all its branches with particular reference to the immediate need for technical personnel to carry out the various plans of Government for Postwar Development especially in the first five years."



Meetings:- The Committee held two meetings - the first on 7th December 1944 at which all the 14 members were present and the second on 8th December 1944 at which 13 were present. At the first meeting the programme of Postwar Educational Development as set out by the Central Advisory Board of Education on Post-war Educational Development in India and the Report of the Director of Public Instruction, Madras, on educational Post-war Reconstruction in the Madras Province were considered in detail in so far as they related to Technical Education, and important decisions pertaining to the present position and further expansion of Technical Education of the University standard were taken. At the second meeting, the expansion of schools and institutes of the Artisans and Diploma standards, the question of training teachers and demobilized war personnel and other cognate matters were discussed in detail and recommendations recorded.

#### Chapter II.

Present position:- The Committee recognise at the very outset that there is widespread illiteracy in this Province and that general education, where it exists, is far too literary in character and lacks an industrial bias.

Although the terms of reference do not specifically include General Education, the Committee feel that they cannot altogether omit to mention such of the proposals of the Director of Public Instruction and the Central Advisory Board relating to General Education as have a direct bearing on Technical Education. The recruiting ground for the Industrial and technical institutions of the future would be the higher elementary and secondary schools of the Education Department and if these could impart a preliminary course of training in Science and Crafts, the standard of efficiency of technical schools would be considerably higher than at present.



The Committee therefore welcome the proposals of the Director of Public Instruction to introduce compulsory education by stages upto the VIII Standard and to bifurcate the curricula of high schools into two groups, one consisting entirely of literary subjects and the other consisting of technical subjects in addition to literary and science subjects. The Committee consider that a higher educational standard for the artisan type of worker and a technical bias for the Diploma and Degree types as envisaged in the above Report would go a long way in producing a better class of technical personnel and would conduce to a shortening of the higher courses in technological subjects and consequent saving of expenditure on Technical Education.

The Committee have considered the present position of Technical Education and the existing facilities provided for instruction in the various grades. The present position appears to be that in all grades facilities for meeting the existing or future demand are inadequate and that the quality of the product ~~are~~ ~~and~~ produced in some of the institutions is not up to the standard expected by the employers. The existing facilities and future extensions in this regard are briefly summarized below:

Technical Courses of the University Grade:- There are in this province three Universities, namely the Madras, the Andhra and the Annamalai Universities. Of these, the Andhra University has already established courses in Sugar Technology and Pharmaceutics, and has proposed Marine and Aeronautical Engineering. The Annamalai University has proposed to start Mechanical, Electrical and Civil Engineering. The Madras University is proposing to start additional courses in Chemical Technology, Textile Technology and Leather Technology. Besides the University Courses there are Technical Colleges viz., the Engineering College, Guindy, the Agricultural College, Coimbatore and the newly started Alagappa Chettiar



College of Technology which are affiliated to the Madras University. Proposals have been made by the Principal of the Engineering College for the starting of Communication Engineering in the Engineering College, Gundy, and also for Post graduate courses in High Way Engineering, Sanitary Engineering, Town Planning Architecture, Irrigation, Railway Engineering, Dock and Harbour Engineering, etc. The Alagappa Chettiyar College of Technology has started a course in Chemical Engineering.

The present capacity of the existing colleges and Universities for the next five years is estimated approximately at 900 graduates of the University Grade. The Committee consider that the existing facilities are inadequate to meet the demands of future industries in general and the needs of demobilised war personnel in particular. The Chief Engineer (Communications) require 338 Engineers and Subordinates per year. The Chief Engineer (General) estimates that 375 Engineers and licentiates per year would be required for irrigation and drainage. The Chief Engineer for Electricity requires 45 Engineers and Licentiates per year. The Railway and the Director of Industries and Commerce estimate a total of 500 Engineers for the Development of Industries and expansion of Railways. It will thus be seen that the total - estimated requirements of post war developments of industries roads, irrigation and hydro electric power are over 2,500 graduate engineers within the next five years. The development of Agriculture and Forestry will similarly require an increased number of graduates. The Committee therefore resolve that

"In view of the great urgency and need for technical personnel, three additional Engineering Colleges, one being in the Ceded Districts and an additional Agricultural College to be set up in this Province and this recommendation be given the highest priority in any scheme of development".

The Committee further resolves that:



"In view of the need for the development of Forestry and Forest products, Government might revive the Forest College which was abolished a few years ago."

The Committee also resolves that

"Provision should be made for giving wherever necessary adequate training to the returning soldier of all grades at the expense of the State".

As regards the Universities, the Committee realize that they are autonomous bodies and that the courses of studies under their faculties are administered and controlled by their respective Senates; nevertheless there is need for some degree of co-ordination so as to avoid duplication of efforts and lopsided development irrespective of the immediate needs of trade and industry. In this connection, the Committee note that the Andhra University has under contemplation the setting up of degree courses in Marine and Aeronautical Engineering. The Committee feel that there is greater and immediate need for increased facilities in the Andhra districts for Civil, Mechanical and Electrical Engineers and accordingly resolve that

"In addition to the courses already proposed, the Andhra University should be persuaded, to start Civil, Mechanical, Electrical and Highway Engineering Courses and that priority should be given to the latter courses."

Foreign Scholarships:- The Committee note that the system of foreign scholarships awarded by Government in the Department of Industries and Commerce has been kept in abeyance. The development of special industries during the next five years and thereafter would demand a large number of technical experts trained in special subjects. It is estimated that the Director of Industries and Commerce would require during the next five years 100 foreign scholarships. In order to meet this demand it is necessary to revive the system of scholarships, deputations and study leave and award them in accordance with the programme of development of Industries. The Committee therefore resolve that

"Foreign scholarships, deputations and study leave should be revived and that an adequate number should be awarded for the study of Scientific and Technological subjects."



### Chapter III.

Technical education of the Diploma Standard:- It is generally recognized that the types of technical institutions provided by the State should, as far as possible, bear a direct relationship to the types of workers needed by industry. The Committee are agreed that between the skilled craftsman and the higher executive, there is an intermediate class of technicians who must not only know the fundamentals of Science and Technology, but also be in a position to interpret drawings and execute work practically. In this category comes the class of foremen, supervisors and minor executives. The existing facilities in regard to this class are provided in the following institutions:

(1) The Upper Subordinate course in Civil Engineering at the Engineering College, Guindy;

(2) The Diploma courses in Mechanical Engineering, Electrical Engineering and Printing Technology of the Government School of Technology, Madras;

(3) The Diploma Course in Automobile Engineering at the Ramakrishna Mission Industrial School, Madras.

(4) The Diploma courses in Mechanical and Electrical Engineering at the C.N.T. Institute, Madras; and

(5) The Diploma courses in Mechanical Engineering, Electrical Engineering and Textile ~~Eng~~ Technology of the P.S.G. and Sons Charity Industrial Institute, Peelamedu, Coimbatore.

For the conduct of examinations there is a Technological Diploma Examination Board constituted by Government to examine and issue Diplomas according to recognised standards of syllabus, equipment and staff. The Board is composed of competent Experts and Engineers and is empowered to affiliate other institutions which come up to their recognised standard. The total capacity of the above institutions is approximately 200 diplomates per annum. The Committee consider that the present output of some at least of these institutions is neither adequate nor up to the higher standard in view for the efficient handling of the future programme of development.



In addition, a large number is being trained in the factories and workshops. The Committee realise that an accurate estimate of craftsmen under training or actually working in the factories and workshops cannot be ascertained at present. But the available data of factories in the Province and the number of skilled workers in them would seem to indicate that about 5000 boys would be under training. It is estimated that an annual turnover of skilled workers from the above two sources would be of the order of about 1700 persons. The Committee consider that this number would hardly meet post-war requirements especially in view of the impending development of industries for which it is understood that schemes are in progress. The Committee would therefore ~~welcome~~ welcome considerable expansion of industrial schools and evening classes not only for adult workers but also for demobilised war personnel. In this connection the Committee note that the Army Headquarters in the Directorate of Resettlement have in view a scheme for the vocational training of ex-servicemen. It has been reported that Madras has contributed to the Army 33,000 motor truck drivers and when they return, they would require additional training. The Labour Department of the Government of India have 32 technical training centres where trainees are given a preliminary course of intensive training in various trades. We consider that these institutions should be adapted and courses revised or modified so as to serve the needs of not only of the demobilised war personnel but also the additional skilled craftsmen that would be required after the needs of the former are met. The Committee would also recommend that after the rehabilitation period the Provincial Government should take over these wartime institutions under their own management.

The Committee note that in most of the industrial schools the minimum educational qualification for admission is the V Standard, which in the opinion of the Committee is



not sufficiently high for most of the trades. They, however, realize that any immediate raising of the standard would hardly be feasible as it would adversely affect many of the existing industrial schools run by Missionary and Charitable organizations and throw an additional burden on the parents of the boys. In view of these considerations, the Committee resolve that:

"When conditions permit, the minimum educational qualifications for admission to Industrial and artisan type of schools should be raised to the VIII Standard or III Form."

7 The Committee note that the distribution of industrial and technical schools is not uniform over the Province. Although the distribution in the past followed the natural law of "Supply and Demand" it may safely be anticipated that the future development of industry would be on a regional basis. It is necessary for obvious reasons to locate the technical institutions of the future in different parts of the Province having due regard to local industries. The Committee accordingly resolve that:

"Development in all grades of Technical Education should be on a regional basis and that special privileges should be given to backward communities Muslims and Scheduled Castes."

It has been pointed out that in the various local languages of this Province, technical terms are described in different ways by different writers. The Committee recognise that technical and scientific terms as applied to modern Engineering and Technique are not easy of translation into different languages nor are they easily understandable when transliterated in vernacular alphabets. The Committee understand that attempts have been made with some success to write text books in Roman script. The Committee recommend therefore that:

"In the lower grades of industrial schools at least, text books, if any, may be in Roman script in the language of the locality."

Regulation of trade apprenticeships:- The Committee are of the opinion that in addition to the provision made for training of technical personnel in schools and colleges of



the various grades, facilities for apprenticeship in work-shops and factories are also essential. \* At the present time there is considerable difficulty in placing boys in factories and workshops. The absence of any well-established trade unions or an universally accepted system of indentured trade apprenticeships in this Province has created a dearth of skilled craftsmen. The position will become worse in the Post war Development period when the necessity for an increased number of craftsmen will be felt all the more. Even in this machine age, trade apprenticeships play an important part in the training of artisans, technicians and engineers. The committee are convinced therefore that apprenticeships should be fostered and regulated by the State and accordingly resolve that:

"There should be an Apprentice Act enabling Government to make it obligatory on the part of employers to admit apprentices under a regulated scheme."

Technical Teachers:- The Committee have considered the proposals contained in Sir Meverel Statham's Report and the Report of the Central Advisory Board and agree with the sentiments expressed therein that teachers of all grades, whether in arts schools or in technical institutions have an important part to play in the shaping of the future generations in all spheres of activity. They should be efficient and ~~all~~ at the same time be assured of a reasonable standard of living. The art of teaching has to be acquired and therefore there should be facilities for the training of teachers of all grades. In order to attract the best type of men for the teaching profession, the scales of salaries of teachers should be fixed at a higher level than those of the present. The committee therefore resolve that:

"The salaries of technical teachers should be on the basis of the Salaries suggested in Sargent's and Sir Meverel's Reports and that there should be additional facilities for the training of Technical teachers of all grades."



Control of technical education:- The question of control of technical education has been carefully considered. The Report of the Central Advisory Board recommended in effect that Technical Education of the Diploma standard should be placed under a Central Controlling Authority composed of representatives of all interests concerned. With a view to implement the above recommendation the Government of India have proposed to establish an All India Council which would "conduct preliminary investigations with a view to ascertaining the conditions on which the present controlling authorities concerned will be prepared to hand over to the All India Council such technical institutions now controlled by them as in the opinion of the Council it may be desirable to incorporate in an All India Scheme."

The Committee have bestowed anxious thought over this question and are convinced that any measure of control by the central authority in the sphere of education of all grades and types would be detrimental to the interests of this Province where the standards are already higher than those of several other provinces. They agree that some measure of uniformity of standards is desirable and that the Central authority might render advice in this regard. The Committee also appreciate the view put forward by some members that this Province should aim at the highest standard so as to secure international recognition; but they are not convinced that such high standards could only be achieved through the medium of a central authority. The Committee are therefore unable to see the need for setting up an All India Council to control Technical Education. The Chairman National Service Labour Tribunal, had suggested the setting up of a Central Council of Technical Education to lay down standards and conduct examinations. The Committee are convinced however that even this, is unsuitable to the Province



of Madras. The long distances involved coupled with lower standards in other provinces would not only tend to put a brake on the progress aimed at in these proposals but also lower the existing standards at the altar of uniformity. The Committee therefore resolve (Mr. Ramakrishna agreeing subject to the above proviso relating to a Central Council) that:

is  
"This Committee/ emphatically of the opinion that control of Technical and Industrial Education of all grades should continue to be the sole responsibility of the Madras Government as at present."

#### Chapter VI.

Summary of recommendations:-- The recommendations are:

- (1) That three more Engineering Colleges be started, one being in the Ceded Districts, and that the highest priority be given to this recommendation.
- (2) That one more College of Agriculture be started at a suitable centre and that the Forest College be revived.
- (3) That the Andhra University should be persuaded to start Civil, Mechanical and Highway Engineering in addition to Marine and Aeronautical Engineering and that priority be given to the former.
- (4) That 100 foreign scholarships and the grant of study leave and deputation should be revived.
- (5) That Diplomas below the Degree standard should not be awarded by Universities and that more Polytechnics should be started on a regional basis.
- (6) That when conditions permit, the minimum educational qualification for admission to industrial schools should be raised to the VIII Standard or III Form.
- (7) That in the lower grades of industrial schools, text books should be in Roman Script.
- (8) That there should be an Apprentices Act enabling Government to make it obligatory on the part of employers to admit apprentices under a regulated scheme.
- (9) That there should be additional facilities for the training of technical teachers of all grades and that their salaries should be raised.
- (10) That development of all grades of technical Education should be on a regional basis and that special privileges should be given to backward communities.
- (11) That provision should be made for giving wherever necessary adequate training to the returning soldiers of all grades at the expense of the State.



- (12) That the control of Technical and Industrial Education should continue to be the sole responsibility of the Madras Government as at present.

### Chapter VII.

In the foregoing pages, the Committee have attempted to survey the whole field of Technical Education within the short time at their disposal and have indicated in broad outline the steps that have to be taken to meet post war needs during the next five years. A good deal of the data required for specific and detailed proposals are not available nor could they in their opinion be compiled accurately until actual demobilization commences or until the initial schemes of development have taken a practical shape.

Nevertheless the Committee feel that this report would not be complete without an indication of the financial commitments involved in the above proposals. The following statements, therefore, of the capital expenditure and recurring charges <sup>have</sup> been prepared on the basis of the above recommendations. The figures are approximately and may require modification in the light of actual developments and do not include the expenditure which the Government of India may provide for the training of war personnel during ~~the~~ rehabilitation period.

#### Capital Cost.

|                                                                                                                                                                                                                    | On plant.<br>Rs.<br>Lakhs. | On building<br>and hostels<br>Rs.<br>Lakhs. | Recurring<br>charges<br>per annum<br>Rs.<br>Lakhs. |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|---------------------------------------------|----------------------------------------------------|
| <u>Technical Education of the University Grade.</u>                                                                                                                                                                |                            |                                             |                                                    |
| 1. For 3 Engineering Colleges, one Agricultural College and revival of Forest College.                                                                                                                             | 54                         | 20                                          | 10                                                 |
| 2. For additional courses in the Engineering College, Guindy for Communication Engineering, High way Engineering, Laboratory, Post Graduate courses etc., and for refresher courses for demobilised war personnel. | 3                          | 1                                           | 1                                                  |
| 3. Foreign scholarships for 100 scholars in five years (50 in the first year)                                                                                                                                      | ...                        | ...                                         | 2½                                                 |
| 4. For practical research in colleges                                                                                                                                                                              | 2                          | ...                                         | 1                                                  |
| 5. Scholarships for Scheduled Castes backward communities and Muslims (500 Scholarships)                                                                                                                           | ...                        | ...                                         | 2                                                  |



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Technical Education of the Diploma standard.

|                                                                                                              |     |     |    |
|--------------------------------------------------------------------------------------------------------------|-----|-----|----|
| 1. For new Polytechnics at Madura, Calicut Mangalore, Hindupur, Vuyyuru and Coimbatore.                      | 22  | 15  | 3½ |
| 2. For new courses and improvements to the Government School of Technology.                                  | 1   | ½   | 1  |
| 3. For grant-in-aid to six institutions for improving their equipment and staff.                             | 3   | 2   | 1  |
| 4. For refresher courses to demobilised war personnel and for evening class institutions. <i>Instruction</i> | ... | ... | ½  |
| 5. Scholarships for scheduled castes, backward communities and Muslims (160 per year)                        | ... | ... | 1½ |

Technical Education of the Artisan types.

|                                                                            |     |     |    |
|----------------------------------------------------------------------------|-----|-----|----|
| 1. For 15 new Government Industrial Schools                                | 7½  | 7½  | 2½ |
| 2. For the improvement of existing schools and for increased grand-in-aid. | 5   | 5   | 1½ |
| 3. For apprenticeships, subsidy and for industrial scholarships.           | ... | ... | 1  |
| 4. For the raising of salaries of technical teachers of all grades.        | ... | ... | 2  |
| 5. Scholarships for Scheduled Castes, backward communities and Muslims.    | ... | ... | 2  |

|        |     |     |    |    |
|--------|-----|-----|----|----|
| Total: | ... | 97½ | 51 | 33 |
|--------|-----|-----|----|----|

R.M. Statham,  
Chairman.



## CHAPTER VI: Adult Education.

Government have accepted the then Director's recommendation that it is unnecessary to launch out a scheme for making illiterate adults as literates. Adult education in the sense understood here is to see that pupils after leaving the schools do not lapse into illiteracy and to do this, special evening classes and libraries and other facilities should be made available for the aged adult pupils. The policy of Government in this regard in recent years, has been to encourage these special facilities. Proposals have been called for by Government for the starting of Night Schools especially to cater to the needs of the labouring classes.

Apart from this, a general scheme for Adult Education has been submitted to Government. The salient features of this scheme are:

- (1) Methods and suggestions for making illiterate adults literate and keep them literate.
- (2) The development of adult education on the real sense through organizing adult education centres, libraries, educational institutions, the radio and the Cinema (Aural and Visual instruction).
- (3) The desirability of taking up a few centres selected in Districts and round about Madras in the first instance and try out the scheme.

The I.W.C.C. Organization (Provincial) has "Paid" Staff Officers in the City and in almost all District Headquarters who do some teaching work in the "Adult" centres in their respective jurisdiction.

Teaching Centres:- A proposal to introduce "Adult Education" as an optional in the B.T. Course is under consideration by the Madras University.

Compulsory Village Uplift work and social service including spread of literacy by University students before or just after graduation is being considered.

## CHAPTER VII: The Training of Teachers.

It is essential that forty thousand teachers are required in connection with the introduction of compulsory elementary



education as visualised in the first five year plan of the Madras Government in the course of the first five years. Having regard to the number of children to be brought under instruction in each of these years, the number of teachers required will be as follows:

| 1st year. | 2nd year. | 3rd year. | 4th year. | 5th year. | Total.  |
|-----------|-----------|-----------|-----------|-----------|---------|
| 8,400     | 6,114     | 7,257     | 8,400     | 9,543     | 39,714. |

To meet this heavy demand for teachers, provision was made during 1946--47 for the training of 4,000 additional teachers (2,000 Secondary Grade and 2,000 higher elementary grade teachers). Provision was also made for the training of Higher Elementary Grade teachers also since it was felt that the time is not ripe now to eliminate this grade of teachers as recommended in the Central Advisory Board Report. To attract a large number of candidates for training, increased facilities were afforded by way of increase in the rate of stipends etc., and by opening 100 new classes in various places. In 1946--47 the Secondary Training course was reduced to one year as an emergency measure to produce a large number of trained teachers. This emergency course was however discontinued.

The recommendation regarding training of teachers is continued on page 52 of the report. Government have sanctioned a scheme for training 4,000 teachers in 1947--48. The idea is to open 100 training classes (Secondary and Elementary together) and admit 40 students in each class. The response to this additional facility provided depends upon several factors, the main, being the salary which the trained teacher can have after training.

Regarding training colleges it is submitted that after the report, one Women's Training College has been opened in Guntur

(Guntur) for Women in 1946--47  
No fees are levied in Government Training Schools and stipends are granted both to Secondary and Elementary Grade Trainees. No stipends are paid to collegiate trainees. The present rate of stipend is Rs.18/- for Secondary Grade and Rs.12/- for Elementary Grade. Government recently refused to increase this rate to Rs.25/-. An increase in stipend will attract more students for training.

With regard to deputing teachers for foreign countries for the study of upto date method of teaching we are contemplating to send one for such studies very soon.



# CHAPTER VIII: The Health of the School Child.

In this Chapter, two factors are discussed viz., (1) Medical Inspection of School Children; and (2) Physical Education.

## Medical Inspection of School Children.

In drawing up a scheme of Medical Inspection of School children, the proposal of the Medical and Public Health Departments has been taken into account. It is the intention of Government to have a dispensary within three miles of every village and a hospital within a radius of six miles of every village. This will mean approximately having 1110 hospitals and 4445 dispensaries, in other words an addition of 903 hospitals and 3,424 dispensaries to the existing institutions. It is obvious that if this programme is completely carried out in a short period of time, medical inspection of all children in secondary and elementary schools and even the necessary remedial work will become possible. It was, however, considered undesirable to postpone a scheme of compulsory medical inspection for all pupils in secondary and elementary schools until the programme of the medical department is fully complete. Hence it was planned to have a separate agency for carrying out medical inspection of pupils in secondary and elementary schools. The Director of Public Instruction in consultation with the Surgeon General and the Director of Public Health drew out a scheme of medical inspection of school children.

The scheme so drawn up is briefly as follows:

At present, there are approximately 30,26,000 pupils in Standards I to VIII and 3,47,000 in Secondary Schools, making a total of 3,373,000 pupils. It is expected that 2,66,000 children will be brought under instruction additionally each year, with the progressive expansion of compulsory elementary education. The average number of pupils per annum in the first quinquennium will thus be approximately 40 lakhs and at the rate of one inspection every four years, one million inspections will have to be done each year. On the whole, one



one full time medical officer may be expected to do 5000 medical examinations per year. At this rate a staff of 200 medical officers will be required for one million inspections. It has, therefore, been planned to appoint 200 second class Health Officers as school medical officers under an Assistant Director of Public Health who will be administratively under the control of the Director of Public Instruction. These school medical officers are expected to undertake to a certain extent the "follow up" and treatment work. They should also be given a short course of special training at the Ophthalmic, Dental and Ear, Nose and Throat Clinics. It has been provided that the case of defects and ailments requiring special treatment should, however, be taken to <sup>the</sup> District Headquarters Hospitals.

The above scheme was again reviewed to see whether the recommendations made in the "Bhore" Committee Report may be implemented. In the conference held between the Director of Public Instruction and the Surgeon General and the Director of Public Health to consider the recommendations of the Bhore Committee and to see how far the recommendations could be implemented, it was decided that the scheme as detailed above was the most suitable and practical one and that it needs no further revision. The scheme was accordingly placed before the Government for approval. The Government, however, desired that the scheme must be worked out on the following lines:-

(1) Medical inspection must be at the time of

- (a) Admission in elementary schools;
- (b) Admission in the first form or sixth standard
- (c) Admission in the college.

(2) Children's clinics should be established in District town to begin with and in Taluk Towns sometime later. In addition to the school medical officers, the help of non-official agencies and doctors should also be sought for.

(3) The medical inspection fee is also proposed to be levied at Rupee one from children in I to III Forms and classes



one full time medical officer may be expected to do 5000 medical examinations per year. At this rate a staff of 500 medical officers will be required for one million inspections. It has, therefore, been planned to appoint 500 second class health officers as school medical officers under an Assistant Director of Public Health who will be administratively under the control of the Director of Public Instruction. These school medical officers are expected to undertake to a certain extent the "follow up" and treatment work. They should also be given a short course of special training at the Institute of Dental and Eye, Nose and Throat Officers. It has been provided that the case of defects and ailments requiring medical treatment should, however, be taken to a District Headquarters Hospital.

The above scheme was again reviewed to see whether the recommendations made in the "Joint Committee Report" may be implemented. In the conference held between the Director of Public Instruction and the Director General and the Director of Public Health to consider the recommendations of the Joint Committee and to see how far the recommendations could be implemented, it was decided that the scheme as detailed above was the most suitable and practical one and that it needs no further revision. The scheme was accordingly placed before the Government for approval. The Government, however, desired that the scheme must be worked out on the following lines:-

- (1) Medical inspection must be at the time of:
  - (a) Admission in elementary schools;
  - (b) Admission in the first form or sixth standard;
  - (c) Admission in the college.

(2) Children's clinics should be established in district towns to begin with and in Taluk towns sometime later.

In addition to the school medical officers, the help of non-official specialists and doctors should also be sought for. The medical inspection has to be carried out in a systematic manner and the results should be recorded in a special form.

of the higher elementary schools; Rs.2/- from students from IV to VI Forms; and Rs.3/- from students in colleges.

(4) It is also proposed to utilise the dispensaries in Taluk Headquarters and others till the children clinics are established in greater numbers. The schools which can reasonably organize the medical inspection of their children on the above lines should be taken up first.

The above Government scheme was discussed in a conference held in the Secretariat recently (17th April 1947). A copy of the G.O. on the subject is reproduced below:

"The Director of Public Instruction is informed that the following scheme has been formulated for the Medical Inspection of school children.

(1) In Rural areas where there are health centres with doctors or where rural medical practitioners of modern medicine are available, medical inspection in schools in such places may be arranged through them.

(2) In urban areas where a fairly large number of schools is found, a school medical service with a nucleus of full paid doctors and if necessary with other doctors on a voluntary part time basis may be appointed for medical inspection as well as follow up work.

(3) While large clinics with all upto date machinery for child treatment may not be possible to be established separately from the Government General Hospitals, it is considered that small clinics which may be able to cover the normal cases of children may be established in the district towns to begin with, to be put in charge of full time doctors of the school medical service. In the meantime, apart from the school medical service, arrangements must be made in the Headquarters hospitals to treat children's diseases of a special nature.

(4) The scheme may be extended along with increasing facilities under the postwar scheme regarding medical clinics.



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(3) While large clinics with all up-to-date machinery for child treatment may not be feasible to be established separately from the Government General Hospitals, it is considered that small clinics which may be able to cover the normal cases of children may be established in the district towns to begin with, to be put in charge of full time doctors of the school medical service. In the meantime, apart from the school medical service, arrangements must be made in the headquarters hospitals to treat children's diseases of a special nature.

(4) The scheme may be extended along with dispensaries to include the lowest schools regarding medical clinics.

(5) As regards finance, while voluntary help by doctors could be utilised wherever they are available it is considered that it cannot work long on that basis and so, atleast a part paid system must be established. It is considered that in rural areas referred to in (1) above, a minimum number of students for medical examination could be fixed by Government for every doctor in a health centre or for every subsidised rural medical practitioner and over and above that a rate may be fixed to be paid to them for medical inspection. For the normal follow up case, the children must go to these centres.

It is proposed to levy a fee of eight annas per year for boys in higher classes in Higher Elementary Schools, one rupee per year on boys of Forms I to III, two rupees per year on boys of Forms IV to VI and three rupees per year upon boys of all colleges. The Director of Public Instruction is requested to work out the financial effect of the scheme on this basis and to forward it to Government. He is also requested to offer his remarks on the other aspects of the scheme in consultation with the Surgeon-General and the Director of Public Health.

(6) In the Conference of Medical Inspection of schools which was held in the Secretariat on 17th April 1947 and which was attended by the Surgeon General, the Director of Public Instruction, the Principal, Medical College and others, Dr. Kutumbayya suggested that Doctors might be appointed as Physical Instructors in Schools. While this may not be possible it has been suggested that they may be appointed as School Assistants in Schools like other trained graduates. In addition to looking after the health of the children they can also handle classes on Physiology, Botany, Social Hygiene and also elementary science as most of the medical graduates are Science men in the Intermediate. The Director of Public Instruction and the Surgeon General are requested to offer their remarks on the suggestion."



In the penultimate sentence of the third part in Section 4 of this Chapter, the Committee <sup>say</sup> ~~may~~ that "the school physical instructor, if there is one, should also be associated with the (Medical) Inspection, as he (or she) may be able to assist in the removal of some defects by appropriate exercises". This suggestion can be implemented by requiring that a course on medical and physical examinations, the ways and means how the physical education teacher can associate himself or co-operate with the medical officer in charge of the medical and physical examinations should be included in the course of physical education training of physical education teachers and physical directors at the Y.M.C.A. College of Physical Education Saidapet.

Recommendation 34 of the Joint Committee of the Central Advisory Board of Education and Health as set out in Section 17 of this Chapter has been implemented in this Province by the appointment of a Chief Inspector of Physical Education. The appointment of District Inspectors of Physical Education is under consideration.

Recommendations 35 and 36 are being carried out in the course of training of Physical Education teachers at the Y.M.C.A. College.

Recommendation 37 has been in force and is a condition for a grant-in-aid in this Province. But, the ratio of physical education teachers in secondary schools and training schools is in the proportion of 1:250 and L.T. Physical Directors are recommended for appointment in schools of 750 and above.

Recommendation 38 is also being carried out in this Province through the agency of the Regional Physical Inspectors of Physical Education.

Recommendation 39. The progress of Physical education in girls schools has been accelerated by the appointment of a Woman Specialist in Physical Education with an Assistant and the training of Physical Education Instructresses through Government agency. Proposals for Circle Inspectresses of



of Physical Education is before Government.

Recommendation 40 is not fully realised, since a period every day during school hours for physical activities has not yet been set aside. This is the goal aimed at and with the reorganization of the educational curriculum, it is hoped that it may be possible before long. The undue emphasis on drill has been reduced and organized games of physical education are encouraged. Lack of playgrounds, however, does not yet make it possible to organize games to the whole school population regularly every day.

In Section 8 of the Chapter, it is said that "Steps should, therefore, be taken to ensure that teachers are themselves physically fit" and to have them "medically examined before admission into training schools and at intervals after appointment". The requirement of medical certificate for admission into the training schools is now in force; but this needs to be enforced with strictness to ensure that physically fit people only are admitted to the training schools. With the appointment of medical officers in schools, the proposal to have the teachers re-examined at intervals could be easily carried out.

#### CHAPTER IX: Education of the Handicapped.

The Report of the Central Advisory Board contains a chapter on the education of the handicapped. The report divides handicapped children into two main groups - one the mentally handicapped and the other the physically handicapped. While obviously more should be done than is at present being done for the education, for example, of the blind, the deaf and the dumb, a special enquiry will have to be instituted in order to discover the number of mentally and physically handicapped children in this Province. At present, as elsewhere in India, no statistics are available. Before these statistics are made available, obviously no satisfactory programme of advance can be made. The Report of the Central Advisory Board



deals shortly with the question of the segregation or otherwise of handicapped children. This is largely a medical question and will again depend upon the results of the enquiry already suggested."

However, the education of the handicapped is receiving attention in this province. There are in this Presidency 4 schools for the blind, 4 for the deaf and dumb and 1 for the blind, deaf and dumb, working exclusively for the benefit of these children. It needs no mention that new schools of the kind will be allowed to be opened wherever there is demand.

Statistics of physically and mentally handicapped children have been called for - the teachers in each school has been asked to gather this information and the Divisional Inspectors and Inspectresses asked to consolidate the figures and report them to the Director with a view to improving the educational facilities of these defective children.

The question of inclusion of the subject "Education" of the Handicapped" in the syllabus for the B.T. and the M.Ed., courses is engaging the attention of Government.

Government are also considering the question of opening training schools for the training of teachers in special schools for the handicapped with a view to opening more schools for the Deaf and the Dumb etc.

#### CHAPTER X: Recreational and Social Activities:

Practically all the recommendations in this Chapter have to be yet considered and carried out. The provision for re-creative and social activities in schools and colleges is not through the Physical education programme, games and sports, and the activities of organizations like Boys Scouts, Girl Guides, Junior Red Cross and so on. But even here the number reached through these recreative and social activities programmes is very small, mainly because of the lack of playgrounds and - exclusion of these activities from the regular curriculum as extra curricular activities.



As far as the general public and those outside schools and colleges are concerned, there is practically no organized system or no one organization responsible for this work nor are activities of the different associations like the Y.M.C.A. Boys Scouts, Girl Guides, etc., co-ordinated by one agency. It is time that a Recreation Department is organised. The Central Committee suggest a Youth Movement on an All India Basis. This question is also engaging the attention of Government. Whatever may be the name of the organization, provision of social and recreative activities for non-school and college population is very urgent. The Educational Department may perhaps be the best agency for organizing such recreative and social activities programme.

The above does not mean that nothing is being done in this respect. Private clubs sponsoring various games of every kind, Provincial Associations for Games, Sports and Aquatics, Public Playgrounds under local bodies, the Boy Scouts and the Hindustan Scout Organizations, the Girl Guide and the Girl Scout Movements, the Junior Red Cross Group are all contributing to some extent towards the development of the recreative and social activities programme. The Inter-School games Associations, and the University Sports Committees also contribute their share.

#### CHAPTER XI: Employment Bureau.

Remarks:- Nil.

#### CHAPTER XII: Administration.

A scheme of reorganization of gazetted staff was submitted to Government.



ITEMS II AND III OF THE AGENDA.

The Department of Education of the Government of India are at present responsible for the following subjects in which Provincial Governments and States are chiefly interested.

(i) Central Advisory Board of Education:- Abolished under retrenchment measures in 1923 the Board was revived in 1935 to advise on educational questions referred to it by Central and Provincial Governments and to call for and circulate information and advice regarding educational developments. The Board has dealt with various important problems of education and its Report on Postwar Educational Development in India has been accepted by authorities concerned as the basis of planning educational development. A list of publications of the Board is appended (Annexure). The Board is being recognised increasingly as the sole means of co-ordinating educational policy on an all India basis.

(ii) Bureau of Education in India:- This is responsible for the collection and dissemination of upto date information on educational progress in India and abroad. It issues the Reports of the Central Advisory Board of Education, the Annual and Quinquennial Reports on the Progress of Education in India and occasional bulletins. An Educational Library is maintained and also a library of Educational films. Schemes for the strengthening of the Statistical staff and the Film Unit have been sanctioned with a view to rendering an efficient service to Provinces and States and educational, scientific and cultural organizations. The Bureau will also take up work connected with the production of suitable text books on modern lines and it has also been asked by the Board to produce suitable literature for Adults and children. It has an important part to play in India's co-operation with the UNESCO.

(iii) The Inter-University Board in India:- This important organization on which all the Indian Universities are represented is concerned with the coordination of University studies in India.



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It advises Universities and Governments concerned in regard to University matters. Financial assistance is given to the Board by the Government of India to enable it to maintain an efficient Secretariat.

(iv) The Inter-Provincial Board for Anglo Indian and European Education:- Concerned with the co-ordination of Anglo Indian Education in India, this body too receives financial assistance from the Government of India.

(v) All India Council for Technical Education:- This Council has been set up to survey the entire field of technical education, to consider immediate projects and to secure all India co-operation in the field. Under its auspices six all India Boards of Technical Studies have been set up with a view to achieving a uniformly high standard of education in technological subjects. It is also proposed to set up four Regional Committees of the Council to perform in general the functions of the Council and supervise the work of the proposed Higher Technical Institutions. Plans for the establishment of two such institutions have been prepared and preliminary financial provisions made.

The Indian Institute of Science, Bangalore, has been given substantial financial assistance towards its further development plans. The Delhi Polytechnic is also being strengthened and enlarged to meet upto date requirements of the country.

(vi) University Grants Committee:- The Government of India after careful consideration of the recommendation of the Central Advisory Board of Education set up in 1945 a University Grants Committee to deal in a consultative advisory capacity with the Central Universities. It has been strengthened further to be in a position to take additional responsibility in the development of University Education in India. The Committee will make enquiries and recommendations regarding:



- (i) The lines on which the Universities should develop.
- (ii) The additional amounts in the form of grants-in-aid from public funds required for them; and
- (iii) The Co-ordination of their activities with a view to avoiding unnecessary overlapping.

(vii) Overseas Scholars and Information Bureau:- Under the Overseas Scholarships Scheme 705 Central Scholarships for - advanced studies abroad have been sanctioned so far (1945-47). In addition the provincial Governments awarded 727 scholarships in 1945 and 1946. Educational Liaison Officer in the United Kingdom and the United States of America have been appointed to arrange for the placing of students and for their welfare. Assistance is also rendered to students not directly sponsored by Government. A Bureau of Information for giving information and guidance to students proceeding abroad has been set up. Monthly Bulletins and occasional pamphlets are being issued.

(viii) Scholarships to Scheduled Caste Students:- For the technical and professional education of scheduled caste pupils a special scheme of scholarships has been in operation since 1945--46. In that year 202 scholarships were awarded. Two hundred were renewed in the next year and 300 new scholarships were awarded.

(ix) Educational Development Plans:-

(a) Provincial Plans:- Apart from giving technical advice in regard to Provincial plans, the plans are being partly financed by the Centre. The total amount of central grants provisionally sanctioned for all the Provincial (including educational) schemes in the quinquennium is over Rs.275 crores. For 1947--48 the Provinces have been promised about Rs.45 crores for development purposes, excluding loans. For the Centrally administered areas a provision of Rs.1.86 crores has been made. The share of Education from Central grants is to bear the same proportion as the estimated development expenditure under Education bears to the total of the entire development expenditure, exclusive of productive expenditure. This proportion is expected to be between 15% and 20% of the total expenditure. ~~This proportion~~



Provincial plans for further education of ex-service Personnel are also being financed by the Centre to the extent of 50%.

(b) Central Educational Plans:- Apart from the plans for the Centrally administered areas these plans aim at filling important gaps in the Provincial Plans with a view to making them an effective all India Scheme. The important schemes sanctioned are:

(1) Central Training Colleges:- (i) For High Schools, (ii) For Physical Education, (iii) For Domestic Science and (iv) For technical institutions; financial assistance to the Jamia Millia Islamia and the Viswabharati for training Basic Teachers and Teachers in Arts and Crafts respectively.

A Central Training College for Classical Music is also under consideration.

(2) A Central Bureau of Psychology is to be established.

(3) An All India Council of Social Service, a Central Reference Library and a Central Institute of Modern (Foreign) Languages have also been accepted in principle.

(x) UNESCO and other International Cultural Organizations:

India is a member of the UNESCO. Membership carries with it certain obligations e.g. supply periodically to the organization educational, scientific and cultural information. The programme of the Organization and its technical services would be of great help to India. In addition steps are being taken to promote cultural cooperation with neighbouring countries, e.g. Iran, Indonesia, and China through exchange of students and teachers.

(xi) The Department is also responsible for the administration of the following:

1. Archaeological Survey of India and Museums.
2. Imperial Record Department - Central Archives and Indian Historical Records Commission.
3. ~~Anthropological~~ Anthropological Survey of India.
4. Imperial Library, Calcutta.
5. Central Universities at Aligarh, Benares and Delhi.

Other important activities in the field of research - grants to scientific and cultural organizations are dealt with in a separate memorandum.



ITEM IV OF THE AGENDA.

Medium of Instruction *at all stages of education*

The policy of this Government is that the medium of instruction in Secondary Schools in this Province should be either the mother-tongue or the regional language. The study of English in Primary classes in all schools has been abolished and the study of this subject begins with Form I with effect from the school year 1947--48. This policy has been successful. Those schools which had adopted English as the medium of instruction from the beginning right upto the VI Form have been asked to abolish the English medium progressively beginning from the lowest class so that the pupils who had received instruction in English need not be inconvenienced thereby. It is hoped that in the course of another five years, the medium of instruction in non-language subjects in all schools in this Presidency will be either the mother tongue of the pupil or the regional language of the Province excepting stray institutions which may have to provide English medium in special cases.

ITEM V OF THE AGENDA.

Report of the Committee on National Cultural Trust for India, which met in New Delhi on the 25th and 26th October 1946 as adopted by the Central Advisory Board of Education in January 1947.

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At their meeting held at Mysore on the 24th, 25th and 26th January, 1946, the Central Advisory Board of Education considered a Memorandum ~~for~~ <sup>from</sup> the Royal Asiatic Society of Bengal in regard to the formation of a National Cultural Trust of India (Annexure II) and decided to recommend that the question should be further examined by a Committee to be appointed by the Government of India. In pursuance of this recommendation, a Committee was appointed with the following:

1. Sachivothama Sir C.P. Ramaswamy Aiyar, K.C.S.I., K.C.I.E  
Dewan of Travancore.

*(The Committee on National Cultural Trust for India met in New Delhi on the 25th and 26th October 1946)*



2. Dr. P. Bagchi, M.A., D.Litt.,  
Professor, Visva Bharti, Santiniketan.
3. Dr. Tara Chand, M.A., D.Phil (Oxon),  
Vice-Chancellor, Allahabad University.
4. Mr. Justice Norman G.A. Edgley,  
President, Royal Asiatic Society of Bengal.
5. Sir Maurice Gwyer, K.C.B., K.C.S.I., LL.D.,  
Vice Chancellor, Delhi University.
6. Khan Bahadur Dr.M.Hasan, M.A., D.Phil(Oxon),  
Vice Chancellor, University of Decca.
7. Dr. Zakir Hussain, M.A., Ph.D.,  
Principal, Jamia Millia Islamia.
8. Sardar Surjit Singh Majithia, M.L.A., (Central).
9. The Hon'ble Diwan Bahadur Sir K. Ramunni Menon,  
M.A., (Cantab), LL.D.
10. Dr. Mohan Sinha Mehta, M.A., Ph.D., Bar-at-Law,  
Diwan of Banswara.
11. Diwan Bahadur Sir A. Lakshmanaswamy Mudaliar,  
B.A., M.D., F.R.C.O.G., F.A.C.S.,  
Vice Chancellor, University of Madras.
12. Sir Sarvapalli Radhakrishnan, LL.D., D.Litt., F.B.A.,  
Vice Chancellor, Benares Hindu University.
13. Mrs. Renuka Ray, B.Sc. Econ.(Lond).
14. Dr. D.M. Sen, O.B.E., M.A., Ph.D.,  
Educational Adviser to the Government of India.
15. Dr.(Mrs) Malini B. Sukthankar, M.B.B.S., J.P.
16. Mrs. Ammu Swaminadhan, M.L.A., (Central)

(2) The Committee met in New Delhi on the 25th and 26th October 1946. The following members were present.

Mrs. Renuka Ray, B.Sc.Econ.(Lond),  
Dr. P. Bagchi, M.A., D.Litt.,  
Dr. Tara Chand, M.A., D.Hil(Oxon),  
Mr. Justice Norman G.A. Edgley  
Sardar Surjit Singh Majithia, M.L.A.(Central)  
Dr.Mohan Sinha Mehta, M.A., Ph.D., Bar-at-Law,  
Dr. D.M.Sen, O.B.E., M.A., Ph.D.,  
Dr.(Mrs.) Malini B.Sukthankar, M.B.B.S., J.P.  
Mrs. Ammu Swaminadhan, M.L.A., (Central)  
Mrs.

Mrs. Renuka Ray presided over the meeting.

Dr. Akhtar Hussain, D.Litt.(Paris), Assistant Educational  
Adviser to the Government of India was Secretary to the Committee.



Dr. S.N. Sen, M.A., Ph.D., B.Litt.(Oxon), Director of Archives and Dr. N.P. Chakravarti, M.A., Ph.D., Joint Director General of Archaeology in India, attended the meeting as observers.

3. The following members were unable to be present owing to illness or other reasons:

Sachivottama Sir C.P. Ramaswamy Aiyar, K.C.S.I., K.C.I.E.  
Sir Maurice Gwyer, K.C.B., K.C.S.I., LL.D.,  
Khan Bahadur Dr. M. Hasan, M.A., D.Phil(Oxon),  
Bar-at-law.

Dr. Zakir Husain, M.A., Ph.D.,  
The Hon'ble Diwan Bahadur Sir K. Ramunni Menon,  
M.A.(Cantab), LL.D.,  
Diwan Bahadur Sir A. Lakshmanaswami Mudaliar, B.A.,  
M.D., F.R.C.O.G., F.A.C.S.,  
Sir Sarvapalli Radhakrishnan, LL.D., D.Litt., F.B.A.

4. The Agenda before the Committee was as follows:

(1) To consider the desirability of setting up a National Cultural Trust for stimulating and co-ordinating the cultural activities in the Country.

(2) To consider the constitution and functions of such a Trust, in the light of the decision on item 1 of the Agenda.

(3) To consider the ways and means of setting up the Trust.

(4) To consider the minimum administrative machinery for the efficient functioning of the Trust.

(5) To consider any other matter that may be raised with the consent of the Chairman.

5. Papers circulated along with the Agenda to the members are set out in the Annexure in addition to the following papers:

The Memoranda from the Royal Asiatic Society of Bengal containing proposals on Cultural Reconstruction. (Annexures I to VI).

6. The Committee considered carefully the Memorandum of the Royal Asiatic Society of Bengal and agreed with its object that it was desirable, to establish an organisation to stimulate and promote the culture of the Country. India has a precious cultural heritage. If she is to build afresh a civilisation worthy of her heritage, it must not ignore those moral and aesthetic values which provided so stable a foundation in the past. What is needed is to create an



environment which would stimulate and sustain creative activities in the cultural field. At present there is no suitable organisation to foster and coordinate the development of cultural activities of the Country as a whole and creative artists have often to work in environments which are by no means congenial to any aesthetic pursuits. An independent body of the kind suggested by the Royal Asiatic Society of Bengal and as representative as possible of the various cultural elements in Indian life should, therefore, be set up with the least possible delay to fill this important gap in the life of this Country. The Committee recommended that such a body could appropriately be called the "Indian Cultural Trust".

7. The Committee were of the opinion that while the Trust should be constituted by a Charter or by an Act of the Legislature, and should be handsomely endowed by the Central Government, it must function as an autonomous body with a preponderant non official element. The main function of the Trust should be to encourage cultural activities and it should operate through appropriate Academies and Committees.

#### Functions.

In addition to the functions to which reference is made below in connection with the proposed Academies, the main functions of the Indian Cultural Trust in the opinion of the Committee should be:

- (i) To encourage cultural educational and research with particular reference to the preservation and development of traditional Indian Culture in relation to such subjects as Literature, Architecture, Sculpture, Painting, Music, Dramatic Art and Dancing.
- (ii) To acquire for the State sites, monuments, manuscripts pictures or other objects of importance from the point of view of Indian Culture.
- (iii) To advise the Government of India and the Provincial Governments with regard to cultural matters.
- (iv) To co-operate with Indian Universities in the development of activities in the purely cultural fields.



(v) To co-operate with the learned societies of India in order to encourage and expand the cultural side of the work now performed by them.

(vi) To publish suitable popular literature on cultural matters.

(vii) To maintain close touch with all parts of India (including the States) by holding periodical conferences.

(viii) To organise Archaeological and other cultural missions to foreign countries and generally to develop and extend existing cultural contacts between Indian and other countries.

### Constitution.

The Committee recommended the following constitution for the Trust:

1. Chairman of the Inter-University Board
2. President of the National Institute of Sciences
3. President of the Royal Asiatic Society of Bengal
4. President of the Visva Bharti
5. The Head of the Jamia Millia
- 6-15. Ten members to be nominated by the Government of India, including representatives of Museums, Libraries etc., five of whom will represent the Principal cultural elements in the Indian States.
- 16-26. Eleven members to be nominated by the 11 Provincial Governments who shall be persons eminent in the cultural life of the Country.
- 27-30. One member to be nominated by the Council of State and three members by the Central Legislative Assembly.
- 31-33. Three members to be nominated by the All India Federation of Chambers of Commerce.
34. The Director General of Archaeology in India.
35. The Director of Anthropological Survey of India.
- 37-47. Eleven members to represent the proposed Academies five to be elected by the Academy of Letters and three each by the Academies of Arts and Music.

The Trustees will have power to elect not more than three additional members; the total number of trustees shall not exceed 50.

The tenure of office of the Trustees will be five years in the case of each member of the Trust other than the ex-officio members.

The Committee further recommended that the Indian Cultural Trust should perform its functions through the Agency of the following committees.

environment which would stimulate and sustain creative activities in the cultural field. At present there is no suitable organisation to foster and coordinate the development of cultural activities of the Country as a whole and creative artists have often to work in environments which are by no means congenial to any aesthetic pursuits. An independent body of the kind suggested by the Royal Asiatic Society of Bengal and as representative as possible of the various cultural elements in Indian life should, therefore, be set up with the least possible delay to fill this important gap in the life of this Country. The Committee recommended that such a body could appropriately be called the "Indian Cultural Trust".

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- (ii) To acquire for the State, libraries, manuscripts, pictures or other objects of importance from the point of view of Indian culture.
- (iii) To advise the Government of India and the Provincial Governments with regard to cultural matters.
- (iv) To co-operate with Indian universities in the development of activities in the field of cultural studies.



- (i) A Finance Committee
- (ii) A Committee for the control and establishment of National Parks and for the acquisition of important sites and National Treasures.
- (iii) A Foreign Relations Committee
- (iv) A Committee for the publication of general cultural literature; and
- (v) Such other committees as the Trustees may consider it necessary to constitute.

8. The Committee suggested that the main activities of the Trust should be carried on through the medium of academies of which the following three, in the first instance, should be constituted:

- (i) The Academy of Letters which will deal with Indian Languages and Literature, Philosophy and History.
- (ii) The Academy of Arts (including the graphic, plastic and applied arts) and Architecture.
- (iii) The Academy of Music, Drama and Dancing.

The object of these Academies will be to foster and develop the subjects with which they deal and to promote the study of those subjects with a view to maintaining the highest possible standards of achievement.

It is contemplated that each Academy will be an autonomous body with a separate endowment which may be supplemented by grants-in-aid from the Trust and donations from other sources. The Trust will be the co-ordinating authority in regard to the work of these Academies. It will allow complete freedom to the Academies in the matter of their cultural activities, but in regard to matters of finance it may exercise a general control over the Academies by means of Regulations. The Academies will have power to frame rules with regard to their own functions which are not inconsistent with the regulations framed by the Trust.

Each Academy will be administered by a small Council and a President to be elected by the Fellows. The number of Fellows should be restricted in the case of the Academy of Letters to 100 persons, while in the case of the Academies of Arts and Music, the number of Fellows will be limited to 50 for each Academy.



The Committee recommended that in the Charter or in the Act of the Legislature by which the Indian Cultural Trust and the Academies would be constituted, the names of not more than 30% of the proposed number of Fellows should be mentioned as "Foundation Fellows", the remainder being elected by the Fellows as persons of suitable eminence become available. Not more than five new Fellows would be elected annually in the case of Academy of Letters and not more than three each in the case of the other two Academies. The Fellows on election will hold office for life.

At their annual meeting the fellows of each Academy will elect its Council and also the President of the Academy. After their election the first Council will appoint a permanent Secretary.

The Council of the Academy will consist of not more than 15 members in each case, including the permanent Secretary, who will be an ex-officio member of the Council.

9. The main functions of each Council will be:

(i) To manage the affairs of the Academy and for this purpose to frame such Rules as may appear to them to be necessary for its proper administration, provided that such Rules are not inconsistent with any Regulations framed by the Trustees of the Indian Cultural Trust. All rules so framed should be reported for the information of the Fellows at their next meeting.

(ii) To superintend the publication of periodical or other work published by the Academy.

(iii) To prepare and submit to the Annual meeting of the Fellows a report on the general concerns of the Academy, which report should be submitted to the Trustees of the Indian Cultural Trust with any recommendations which the Fellows might consider it necessary to make.

(iv) To take such legal proceedings as might be necessary in the interests of the Academy.



(v) To make recommendations to the Trustees of the Indian Cultural Trust for the affiliation of other cultural institutions and for making grants-in-aid to such institutions.

(vi) To award prizes for work of exceptional merit.

(vii) To organize lectures and conferences.

10. The Committee then considered the financial aspect of their proposals. They came to the conclusion that the autonomy of the Trust and continuity of its work would only be ensured by a substantial endowment. The endowment should yield sufficient recurring income to meet the administrative and other charges of the Trust and its components. On a rough basis, the Committee estimated that the annual expenditure on the combined Secretariat might <sup>amount</sup> ~~be~~ to Rs. one lakh approximately. The expenditure connected with the other functions mentioned above would be about Rs. 10 lakhs per annum making a total of Rs. 11 lakhs. It would, therefore, be necessary to provide the Trust with an endowment of not less than Rs. 4 crores to enable the Trustees to perform their functions properly.

The Committee hoped that if the Central Government undertook to contribute half of this sum, a quarter could be raised from the States and another quarter from the Provincial Governments.

11. The Committee then took into consideration two other Memoranda from the Royal Asiatic Society of Bengal relating to the development of cultural contacts between Indian and other countries.

The Committee took note of the fact that in India efforts are being made to develop cultural relations with foreign countries, and Societies and Committees have been established for this purpose; and that, in some countries, Committees have been established to develop such contacts with India. The Committee, therefore, recommended that an Interim Standing Committee should be appointed by the Government of India immediately more or less on the model of the proposed Indian Cultural Trust, to develop cultural contacts with other countries.



and to co-ordinate the work of organizations already established in India for this purpose.

12. The following is a summary of the main conclusions and recommendations of the Committee:

(i) It is desirable to establish an autonomous body called the "Indian Cultural Trust" to stimulate and promote the Cultural life of the country.

(ii) The Trust should be constituted by a Charter or an Act of the Legislature and should be handsomely endowed by Government.

(iii) The functions and constitution of the Trust should be generally on the lines recommended in para. 7 of the Report.

(iv) The main activities of the Trust should be carried on through Academies, of which the following three should be constituted in the first instance.

- (a) The Academy of Letters.
- (b) The Academy of Arts (including the Graphic, Plastic and Applied Art) and Architecture.
- (c) The Academy of Music, Drama and Dancing.

(v) Each Academy should be an autonomous body with a separate endowment which may be supplemented by grants-in-aid from the Trust and donations from other sources.

(vi) The Trust will exercise a general control over the Academies in regard to financial matters by means of regulations. In other matters the Academies will be independent of the Trust.

(vii) The lines on which the Academies may be constituted are indicated in para 8 of the report.

(viii) The functions of the Council of the Academies are outlined in para 9 of the report.

(ix) The initial endowment of the Trust should be not less than Rs.4 crores to enable the Trustees to function properly. If the Central Government contributed half of this sum, a quarter could be raised from the Provincial Governments and the balance from Indian States.



(x) An interim Standing Committee should be appointed by the Government of India immediately to develop cultural contacts with other countries and to co-ordinate the work of organizations already established in India for the purpose.

# ANNEXURE I.

A note on the organization of Cultural development in India, by the Secretary to the Government of India, Department of Education: \*\*\*

The Royal Asiatic Society of Bengal has put forward proposals for a National Cultural Trust which are circulated to the members. The Society has also put up proposals for a National Academy of Arts and Letters and a National Parks Organization. The functions proposed for the National Cultural Trust include those to be covered by the two other organizations. In fact, it is suggested that the National Academy of Arts and Letters should be under the immediate control of the Trust.

2. It will be agreed in all quarters that there is much to be fostered and developed in the country in the field of art and culture and that in particular, steps should be taken to stimulate public interest in the arts and to raise the standing of the artist in public estimation. At the same time it will be generally accepted that Government should not undertake any direct control of the activities in the field of art except perhaps in the educational field.

3. In considering the nature of the organization for the subjects proposed for the National Cultural Trust, the first question which arises is whether we can have one organization dealing with all of them. In the field of letters, the poet, dramatist or author, is generally able to achieve not only a tolerable living but also maintain some social status. Moreover, it is almost



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impossible to divorce Literature from History and Philosophy and this shows the importance of the co-operation of Universities and other educational authorities. There is also a risk that by linking Letters to Arts, the needs of the Artists will not receive the same consideration as those of letters. It is therefore more appropriate to have two parallel organizations; one for Letters and the other for Arts. In England the body concerned with Letters is the British Academy. It is hoped to place copies of the Constitution of this body before the Committee.

4. So far as the Arts are concerned, there are three bodies concerned with the subject in England viz.,

- (1) Royal Academy
- (2) Arts Council (Formerly Council for the Encouragement of Music and the Arts)
- (3) Royal Fine Arts Commission.

The Royal Academy's authority and activities are confined to a particular branch of art, viz., Painting, Sculpture and Architecture. The Arts Council was founded in 1941 to ensure that the extraordinary conditions created by the war did not result in the complete destruction of artistic activities. The Council has three panels under the headings Music, Art and Drama. Under Art are dealt with painting, ballet design, design in houses and everyday life, book illustration, home and town planning, needle work and embroidery and typography. The Council's funds derive entirely from Government. Treasury criticism is not directed towards the particular objects selected for assistance. It is understood that the Council will continue its useful activities and has in fact prepared a five year plan.

The Royal Fine Arts Commission was set up to enquire into such questions of public amenity or of artistic importance as may be referred to them by Government departments and public or quasi-public bodies. It is a purely advisory body. The Commission is composed of five laymen, seven Architects, two Painters, two Sculptors and an Engineer. Subjects which



have come within the purview of the Commission include the design and layout of new buildings, bridges and open spaces, repair and decoration of public and historic buildings and the design and sitting of Memorials and commemorative Monuments.

If we accept the need for a Council of Arts for India, it might deal with Music, Dancing, Dramatic Art, Painting, Drawing and Sculpture (including the decorative, industrial and commercial Arts) and Architecture (other than Archaeological).

5. For the constitution of the two organizations proposed, viz., for Art and Letters, it may be useful to consider the model of the National Institute of Sciences of India. It started with 125 Foundation Fellows of whom 100 were first nominated, the remaining 25 being elected by them. The original provision for the election of ten new fellows every year has now been raised to sixteen (fourteen Ordinary and two Honorary). The Council of the Institute has 25 members. In addition, there is provision for the co-operating - Academies and the Indian Science Congress Association to be represented by an Additional Vice President and an additional member of Council. (The 1944 report shows 37 members of Council in all). A similar procedure may be suitable for the Academy of Letters and the Academy or Council of Arts proposed. In the case of Letters a list of prominent men in the field may be prepared. In the case of Arts, it is not necessary to confine selection to individual arts, though prominent artists need not, ipso facto be excluded. We should ~~therefore~~ rather aim at obtaining the services of men of the highest possible standing in progressive Indian artistic thought. We should also guard against giving undue weight to political or communal considerations. The Art institution can form panels and invite members of -



associations of individual arts to serve on them. These bodies will no doubt need substantial assistance from public funds though, in view of their nature, they can also look forward to endowments from private individuals.

6. Regarding the organization for parks and monuments, it should be noted that there is a suitable machinery for dealing with such questions which arise in the Archaeological field. As regards other buildings, sites of beauty, reserves, etc., it seems a separate and independent organization will be necessary. The Corresponding body in England is the National Trust. The President and Chairman of the Council is H.M. Queen Mary. The Council which is composed of fifty members (one half nominated by different learned bodies, the other elected by the members of the Trust), appoints its Executive Committee. The Executive Committee in its turn appoints number of Sub-Committees. Chief of these are the Finance and General Purposes Committee and the Estates Management Committee. The Trust enjoys statutory powers to hold land and buildings inalienably and for all time and has also certain other important powers and privileges.

## ANNEXURE II.

### THE NECESSITY FOR A NATIONAL CULTURAL TRUST.

Letter No.228 dated 26th January 1945 from the General Secretary, Royal Asiatic Society of Bengal to the Secretary to the Government of India, Department of Education, Health and Lands, New Delhi.

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In several of their previous letters to the Government of India, this Council have endeavoured to emphasise the necessity for developing the cultural side of Indian life in connection with postwar reconstruction. They fully realise the value of scientific, economic and industrial



development on which so much thought is now being concentrated, but they feel that, unless steps are taken simultaneously to develop the cultural life of the people, there is a danger that India may lose spiritually more than she is likely to gain materially in the race for postwar prosperity. So far, the Council have directed the attention of the Government of India to a few aspects of this problem. They have pointed out the importance of providing permanent records of India's cultural history from the earliest times in National and Provincial Museums. They have also stressed the necessity for preserving the ancient monuments of India and have discussed the question of the effective utilisation of such monuments in connection with cultural education by making them more accessible to Indian travellers or visitors from other countries.

(2) The Council feel, however, that so far they have only touched the fringe of this vital problem. In the past, India's contributions to world culture have been of inestimable value, especially in the fields of literature, religious philosophy, ~~architecture~~ architecture and the fine arts. The great traditions of the past still remain, but, unless prompt steps are taken to prevent such a catastrophe, there is an imminent danger that they may be submerged and lost in the flood of twentieth century materialism. The question therefore arises as to what steps, if any, should be taken to utilise everything that is best in India's ancient culture in connection with Postwar reconstruction. Although the Council feel that cultural, as opposed to academic and technical education, should ordinarily be left to non-official agencies and that learned Societies and the general public should be invited to take an active part in the matter, they are nevertheless of the opinion that under present conditions some encouragement and assistance from the Central Government is essential.



(3) In the first place, an organization should be established which might be known as the National Cultural Trust. Although it is desirable that this Trust should be in touch with Government it should be as far as possible non-official and autonomous. At the inception of the scheme it might be necessary for Government to endow the Trust with sufficient funds to enable it to fulfil its proper functions but, for its main regular income, it would have to rely on financial support from the public. This Council believe that all Indians of rank, wealth and education are proud of their great cultural heritage and they have no doubt that the requisite propaganda will secure the income necessary to ensure the success of the project.

(4) The main functions of the National Cultural Trust would be:-

- (i) To encourage cultural education and research with particular reference to the preservation and development of traditional Indian culture in relation to such subjects as literature, sculpture, painting, music, dramatic art and dancing.
- (ii) To acquire for the nation, sites, monuments, manuscripts, pictures or other objects of importance from the point of view of Indian National Culture
- (iii) To advise the Government of India and the Provincial Governments with regard to cultural matters which are beyond the scope of the ordinary school or college curriculum.
- (iv) To co-ordinate and assist in the development of the activities of Indian Universities in the purely cultural field.
- (v) To co-operate with the learned Societies of India in order to encourage and expand the cultural side of the work now performed by them.
- (vi) To publish suitable popular literature in connection with cultural matters.
- (vii) To maintain close touch with all parts of India (including the States) by holding periodical conferences.

(5) With regard to the first of these points I am to say that the Council have under their consideration a scheme for the establishment of a National Academy of Arts and Letters,



with regard to which the Government of India are being addressed separately. It is intended that this Academy should function under the immediate control of the National Trust. While the Council do not contemplate that this Academy will assume any direct administrative control or responsibility in respect of similar institutions in the Provinces or the Indian States, they expect that it will maintain a high standard of efficiency and taste, which other smaller Academies in the Council will seek to achieve. It will be a centre not merely for research and instruction in the fine and liberal arts but also for the training of persons deputed for this purposes by the Provinces and the States. The advice of experts from the Academy would be available if required by the Governing Bodies of local cultural institutions and, provided the Council of the Academy was satisfied that any such local institution had attained a reasonable standard of efficiency and deserved encouragement, it would be open to them to recommend to the Trustees that it should be given financial assistance in the form of a grant-in-aid from the funds of the National Trust.

(6) The second function proposed for the Trust would bear some resemblance to the work which is performed by the National Trust in England. The ultimate use to be made of the acquisitions would depend on their nature.

(7) As regards the third point, it is not intended that the National Trust should be concerned with the control or administration of museums. These would remain as at present under the Central and Provincial Governments assisted by the Trustees of the National Museum in the manner indicated in this Council's letters Nos. 2422 and 2736 dated 24th Novr. 1944, and 20th December 1944, respectively. Further, the Archaeological Department would continue to be administered as at present, but with the assistance of the recently constituted Archaeological Advisory Board. Except with regard to these



matters, the Council hope that, in due course, the functions of the National Trust would gradually approximate to such as are performed in some European Countries by the Department of Fine Arts. Apart, however, from its relations with the National Academy and items 2 and 6 ~~from~~ mentioned in para 4, the Trust would perform most of its functions not by the method of direct administration but as an advisory body with authority in suitable cases to allot grants-in-aid, to endow fellowships or scholarships, or otherwise to assist the Central and Provincial Governments or the States in the cultural development of India.

(8) The relations between the Trust and the Universities would naturally vary according to the prominence given to purely cultural education in the Universities concerned. The activities of most of the Indian universities are necessarily restricted by financial difficulties, and the average student, confined as he usually is to a rigid scientific or literary curriculum, has little opportunity to interest himself in culture in the wider sense of the term. On the other hand, cultural research of great national value is often undertaken at the post graduate stage in some of the Universities. What seems to be required at present is to encourage the formation of organizations such as exist in England and American Universities to foster the interest and activity of students in cultural matters outside their ordinary curriculum, and the publication in popular and attractive form of the results of cultural research. This is a field in which the help and co-operation of the National Trust could not fail to bear fruit. Further, their help in widening the scope of University education by endowing University Extension Lectures might have a very good effect.

(9) The assistance of the learned Societies of India would be of the greatest importance to the National Trust, especially in connection with the development of the popular side of the movement. The Royal Asiatic Society of Bengal



and its sister Societies in other parts of India are not merely groups of scholars associated for the purpose of scientific or cultural research. Probably the majority of the members of these bodies are ordinary intellectual people, who are not professional scientists or educationalists, but who find - stimulus and recreation in culture and learning. In any cultural revival the influence of such bodies, if properly, directed, might be of inestimable value to the country. In fact, in connection with the scheme which is now being outlined, the learned Societies would be in effect the agents of the National Trust within the areas from which the majority of their members are drawn. In a small way the Royal Asiatic Society of Bengal is endeavouring to further the cause of culture by holding weekly Discussion Meetings (which are open to the public) at which well-known people are invited to speak on various scientific<sup>or</sup>/cultural topics of interest to educated Indians <sup>or</sup> visitors to India. These talks have become popular not only with members of the Allied Forces but also with the ordinary residents of Calcutta and the interest which they have aroused is reflected by a considerable increase in applications for permanent membership of the Society. Possibly this side of the Society's work might be further developed by the publication of a number of popular hand books on the history, religion and literature of India or with regard to some of her ancient cities and provinces. It might also be possible to expand the very important work on which the Society has been engaged for many years in connection with research and the publication in the Bibliotheca Indica of ancient treatises of unique value. Further, in any cultural survey which may be undertaken at the instance of Government or the National Trust (if and when constituted), this Council would always be prepared to take part and they are only too anxious to assist the cause of cultural reconstruction in any way in which their help may be required. The Council have little doubt that most of the other learned Societies of



India would also be ready to co-operate to the best of their ability.

(10) As regards the sixth item mentioned in para 4, the Council feel that there is at present much scope in India for good popular literature (both for young people or for adults) on such subjects as Indian art and architecture, history, archaeology and the religion and ancient customs of the country. There is also a scarcity of good books for the intellectual traveller. It would be an important function of the National Trust to remedy this deficiency by the establishment of a good Publication Department. In this matter help would probably be forthcoming from the Universities and learned Societies.

(11) The seventh of the suggested functions of the National Trust calls for little comment. Such Conferences should be held as frequently as possible in different parts of India for the purpose of keeping the Trustees in touch with the views of the leading people in all the chief cultural centres of the country. The sessions should be arranged to coincide with public holidays in order that there may be as little interference as possible with the professional work of the people who are asked to attend the Conferences.

(12) It would of course be desirable to constitute the proposed National Trust by a special Act of the Central Legislature. The Trust would require a permanent Secretariat with its headquarters at New Delhi or possibly at Calcutta. The Board of Trustees should contain representatives from British India and States and should include businessmen and members of the learned professions.

(13) Finally, I am to suggest that the Government of India should appoint a Committee of Enquiry for the purpose of making a general survey of those branches of traditional Indian culture, which are still alive or are capable of being revived for the welfare of the entire community. The survey should deal with such subjects as vernacular literature



religious philosophy, the drama, architecture, painting, sculpture, the decorative arts, music and dancing. Although the Committee should not be too large it should be representative of cultured opinion in India as a whole, including the Indian States. It should also contain representatives from some of the leading learned Societies of India. The main committee might find it convenient to entrust the survey with regard to particular subjects to small sub-committees.

14. After completing their survey the Committee should submit their recommendations to the Government of India on the following points:-

- (a) Methods to be adopted for preserving traditional Indian Culture in localities where protective measures are necessary for this purpose.
- (b) The general development of cultural life in India with regard to the subjects mentioned in para 13.
- (c) The Committee's views might be also ascertained with regard to this Council's proposal for the formation of a National Cultural Trust and the financial implication of the scheme. They might be invited to offer suggestions with regard to the scope and activities of the proposed organization or to put forward any alternative suggestions for cultural reconstruction in India.

#### ITEM VI OF THE AGENDA.

The following additional information is given to what is already furnished in the notes prepared by the Government of India under this item.

A sum of Rs.500/- is being paid annually by the Government of Madras to the Indian Institute of Science, Bangalore.

The Government of Madras are also sanctioning a grant of Rs.1,000/- annually to the Bhandarkar Oriental Research Institute, Poona, towards the cost of preparation of a critical edition of the "Mahabharatha" for a period of ten years from 1941--42 or until the work is completed, whichever is earlier.

#### ITEM VII OF THE AGENDA.

The Director of Public Instruction is interviewing candidates of the Defence Services for appointment to the various categories in the Educational Department.



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EDUCATIONAL CONFERENCE AT SIMLA.

There are seven subjects included in the agenda for the Conference. Item No.1 of the agenda is reproduced below:

"To consider what substantial modifications, if any, are desirable in the plan of Educational Development set out in the Central Advisory Board of Education's Report, in the light of experience gained since it was published. (It is proposed that the Chapters in the report should be discussed seriatim)"

The following note is submitted on the various schemes detailed in the several chapters of the report on Post War Educational Development in India of the Central Advisory Board of Education:

CHAPTER I: Basic Primary and Middle Education.

In this chapter, a system of compulsory elementary education upto and inclusive of Standard VIII for all boys and girls of ages 6 to 14 is envisaged. Along with it, the scales of pay of elementary school teachers are also given for adoption by the Provincial Governments.

In the scheme outlined in the report, it has become necessary to take into consideration existing facilities for introducing compulsory elementary education for all children of school-age in this Province. There are a large number of complete lower elementary schools which has been considered as providing sufficient foundation on which a universal system of primary education may be introduced. As a practical scheme to be taken up immediately after the war, it has been accepted by Government to introduce compulsory elementary education upto Standard V throughout the Presidency and then gradually extend the compulsion to Standards VI, VII and VIII, as these standards are added on to the lower elementary schools. With this aim in view, a scheme has been drawn up for the first five years of the Post War period to introduce compulsory elementary education. The scheme in brief is as follows:



It has been estimated that about 40 lakhs of pupils are yet to be brought under instruction, in addition to 30 lakhs of pupils now at school. For various reasons, the chief among them being dearth of trained teachers, it is obviously impossible to bring all the 40 lakhs of pupils under instruction simultaneously. As a practical measure it has been decided to bring under instruction about a third of this number within the first five years of the Post War Scheme. Though the ultimate objective is to provide compulsory free education upto and inclusive of Standard VIII, the immediate plan is to see that pupils who are enrolled in the schools are kept on till they complete their V Standard Course. As the urban areas and cities now have adequate educational facilities, it is planned to introduce compulsion in select rural centres of each district and gradually expand the scheme in each of the successive years. The probable number of children to be brought under instruction by the introduction of the proposed scheme and the cost involved are as follows:

|                  | <u>1st year.</u> | <u>2nd year.</u> | <u>3rd year.</u> | <u>4th year.</u> | <u>5th year.</u> |
|------------------|------------------|------------------|------------------|------------------|------------------|
| No. of Children: | 294,000          | 508,000          | 762,000          | 1,056,000        | 1,390,000        |
| Cost:            | Rs. 44 lakhs.    | Rs. 66 lakhs.    | Rs. 88 lakhs.    | Rs. 110 lakhs.   | Rs. 132 lakhs.   |
| Total Cost:      | Rs. 440/- lakhs. |                  |                  |                  |                  |

Though the Post War period is deemed to have commenced from 1946--47, the compulsory elementary education has been introduced in about 434 select centres in the rural areas in 1945--46 already. This is intended to benefit about 170,855 pupils. In 1946--47, the number of centres selected for introduction was 645 and the number to be provided in these centres has been estimated to be 216,000.

The scheme outlined above and accepted by this Government would indicate certain deviations from the recommendations made in this Chapter. For various reasons, it has become impossible and in certain cases undesirable to proceed with the scheme of compulsory elementary education in the manner indicated in



this Report. For example, the Board has recommended that compulsory elementary education should be introduced for all upto Standard VIII and if that is not possible the compulsion should be introduced from area to area and not from age to age. In the Director's scheme it has been found necessary to do exactly what the Board did not recommend in its report. It may be seen in the Director's scheme outlined above, that compulsion is to be introduced upto Standard V first and then gradually extended by stages to Standards VI, VII and VIII. In other words, the ages of compulsion will automatically be increased as higher standards are added on, until it becomes possible to introduce compulsion upto Standard VIII for all.

The other questions connected with the Post Primary education, viz., the nature of course in Standard VI to VIII do not arise now. It may, however, be added here that apart from the scheme contemplated above, there are about 2,200 higher elementary schools in this Presidency. In all these higher elementary schools, provision already exists for the teaching of handicrafts.

Measures proposed to be taken to make the compulsory elementary education effective and successful:- To work out of the scheme/compulsion successfully as proposed, a proposal to appoint attendance officers was submitted to Government. The attendance officers are intended to see that the children attend the school regularly and get the utmost benefit. Government have not yet passed final orders in the matter.

Along with the scheme of compulsory elementary education, a subsidiary scheme for free midday meals to poor children attending schools to implement the scheme of compulsion was submitted to Government. After working out the scheme for sometime, spending Rs.7.86 lakhs in 1945-46 and Rs.29 lakhs in 1946-47, the Government found it advisable to abandon the

Milk Scheme:- In certain districts, the scheme of midday meals could not be worked due to the scarcity of feed stuffs. Instead of meals, the children attending schools in the districts of Bellary, Anantapur, Salem, Chittoor, North Arcot, Ramnad, Vizagapatam, Tinnevely, Coimbatore and Malabar were supplied with milk, each pupil getting 8 ounces of milk prepared from the milk powder. This subsidiary scheme worked till 28th February 1947 when the Government ordered its abolition.



Free supply of books and slates:- As an incentive for poor children to continue their studies, they were supplied with books and slates free of cost; the Government undertook to meet the entire expenditure of the scheme. The Government sanctioned a sum of Rs.1 lakh for distribution of free supply of books and slates to the children attending schools in the areas brought under compulsion in 1945--46 and Rs.1.67 lakhs in 1946--47.

Rules under the Madras Elementary Education Act provide for imposing penalties on parents or guardians who fail to send their children without sufficient and satisfactory reasons to schools in areas where compulsion has been introduced. A further amendment to the Act has been proposed to Government by which it is to be laid down that "no person shall take into employment any child of school going age residing in areas where compulsory elementary education has been introduced." The proposal also contemplates the cognizance of such an act as an offence punishable under Law. It has been proposed to Government that such offenders shall be liable to be <sup>prosecuted</sup> ~~presented~~ before a Magistrate on a complaint preferred by the President of the Compulsory Elementary Education Committee constituted for each area where compulsory elementary education is in force.

#### BASIC SCHOOLS.

It is proposed to introduce Basic Education in this Province in a systematic way. During 1946--47 the Government opened two Basic Training Schools to train teachers on Basic lines = one at Periyanaickenpalayam (Coimbatore District) and the other at Vinayashramam (Guntur District). Twelve L.Ts., were deputed to Wardha for training. With the services of these L.Ts. 3 more Basic Training Schools will be opened in 1947--48 - one at Uddalore (South Arcot District), the second at Palayad (Malabar District) and the third at Moodibidiri (South Kanara District).

Basic education is being introduced during 1947--48 in



about 20 schools in the Belt area in and around the Basic Training School, Periyanaickenpalayam (Coimbatore District), with the teachers trained in this school. With the trainees trained at the Vinayashramam School (Guntur District) about 24 Basic Schools will be opened in the firkas selected for Rural Development in the Andhra Desa.

It is also proposed to send another batch of about 10 candidates to Wardha this year.

A new impetus was given to teachers to undergo craft training particularly in Spinning during the summer vacation of 1946--47 and a large body of teachers took advantage of this special course.

The sanction accorded by Government for the payment of a craft allowance in the general scheme of revision of salaries will also induce teachers to qualify themselves with one of the recognised crafts within the time limit prescribed.

## CHAPTER II - PRE PRIMARY EDUCATION.

The Education Department has been and is encouraging the opening of Nursery Schools in the Province. The Government of Madras is most anxious to see that as in Western Countries the Pre-Primary Education takes a well defined place in the fabric of Public Instruction. The expert committee which went into this question met in September 1946 and made the following recommendations:

- (1) There may be nursery schools for children between the ages of 2 to 5.
- (2) There may be Nursery Kindergarten Schools for children between 2 and 7.
- (3) Provision of a certain minimum accommodation and equipment for these schools was decided upon.
- (4) Such schools may be run either as separate units, or attached to existing elementary or Secondary Schools or Training Schools.
- (5) Recognition and aid may be given in the beginning without too close an adherence to the conditions imposed in order to encourage enterprising private agencies to start such schools wherever possible.



ADVISORY BOARD AND THE REVISED SCALES OF

Government of  
Mysore.

Institutions. In schools under aided manage-  
ments.

Elementary Schools:

Lower Ely. Trained:  
Rs.18 p.m. scale of grant.  
Higher Ely.Trained:  
Rs.25--1/2--30 p.m. scale grant

1-55-2-75

Secy.Trained: 35-1-45 p.m.  
Collegiate Trained: 35-1-45 p.m

for Head-  
schools as  
ed.

The above are the scales of  
grant at which aid will be  
given to Ely.School managements.  
Govt. have directed that the  
managements should pay atleast  
Rs.30/- to Higher Ely.Trained  
teachers and Rs.40/- to Secy.  
Grade trained teachers under  
their employ.

High Schools (Secy.)

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Same scales as those for  
teachers in local body ins-  
titutions.

of Local  
is higher  
tested by  
visory



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A COMPARATIVE STATEMENT SHOWING THE SCALES OF PAY SUGGESTED BY THE CENTRAL  
PAY RECENTLY SANCTIONED BY GOVERNMENT.

Scales of pay for teachers recommend  
ed in the Central Advisory Board's -  
report.

Scales of pay fixed by  
Madras for t

In Government Schools. In Local Bodies

Elementary Schools:

Secondary Grade trained in  
Lower Ely. Schools: 30-1-35-3/2-50  
Higher Ely. Schools: 40--2--80  
10% to 50% of salaries ~~xxx~~ as  
allowances:  
Headmasters and Headmistresses  
in Lower Ely. Schools:

A. 1-2 class Sections: Rs.10 above  
the scale.  
B. 3, 4 or 5: " Rs.50-4-70  
C. 5 or 6-8 " Rs.60-4-80  
D. Above 8 or 10 Rs.80-4-100

Higher Ely. Schools.

A. 3 or 4 class sections: 80-4-100  
B. 4 or 5 to 6 or 8 " 90-4-110  
C. Over 6 to 8 " 110-4-130

High Schools:

Non-Graduate Trained: 40-2-80+6 1/4%  
P.F. contributions  
Graduate Trained: 70-5-150+6 1/4% P.F.  
contributions.  
Headmasters:  
of Schools upto 250 pupils: on rolls:  
175-10-225  
of schools upto 500 pupils on rolls  
250-10-350  
of schools over 500 pupils on rolls  
350-15-500

Elementary Schools:

Lower Ely. Trained:  
23--1--33  
Higher Ely. Trained  
30--1--50  
Secy. Grade Trained  
45-3-60-2-90\*

No separate scales  
of Headmasters of Ely.  
Schools as such have  
been fixed.

Elementary Schools:

Lower Ely. Trained:  
23--1--33  
Higher Ely. Trained  
30--1--45  
Secy. Grade Trained  
~~45-3-60-2-90~~ 45

No separate scales  
masters of Ely.  
such have been

High Schools (Secy.)

Secy. Grade: 45-3-60-2-90\*  
Collegiate Trained:  
85-5-125-10-175:  
Senior Grade:  
165-5-205-10-245  
Headmasters and Head-  
mistresses will get  
Rs.25/- per mensem as  
allowance (Schools  
over 500 pupils on  
rolls), the rest will  
get Rs.10/- per mensem

\*Govt. scales are  
higher than that  
suggested by the  
Central Advisory  
Board:

High Schools (Secy.)

Secy. Grade: 45-  
L.Ts. 75-5-145-  
and inc.  
Headmasters of m  
schools with 500  
number of pupils  
will get in addi  
L.T. scale Rs.10/  
allowance; of  
having the strer  
over 500 pupils  
Rs.25/- p.m. as  
other high sc  
150-10-200 St

150-10-200+Rs.2.  
strength of sch  
500-

\*\* Even the sca  
body teach  
than that  
the Central  
Board.

REMARKS:- The allowances for Headmasters  
sanctioned by Government are  
in effect the recommendations of  
the Central Advisory Board's Report.  
The percentage of selection grade  
officers has been raised to 33 1/3 to  
allow for a larger number of in-  
cumbents to get the benefits of  
the higher scales.



There is only one Nursery Training School at Present. But in view of the increasing demand for more teachers, Government have been addressed this year to accord permission for running two more training institutions - one in Kindergarten and the other in Montessori methods of instruction located at Mylapore and Adyar respectively. In addition to these three Nursery Training Schools, Government have accepted the proposal of the Department to open Nursery Training Course in the Lady Willingdon Training College.

### CHAPTER III: High School Education.

The scheme outlined in this Chapter is more or less on the lines of reorganization of secondary education envisaged in the Press Communique issued with G.O. No. 1339, Education, dated 17th October 1940. The aim of the scheme of bifurcated courses is to sift pupils at IV Form stage according as they are fit for University Education or to stop with the completion of High School course. The Director of Public Instruction's scheme is briefly as follows:

At Fourth Form the pupils have to be divided into two groups, one to the S.S.L.C. Course leading to University Education referred to in the Central Advisory Board's Report as "Academical" high schools and the other leading to a vocation after school course called the "Technical" high schools. Six subjects have been selected for introduction as bifurcated course in secondary schools, viz., the Secretarial Course; Artisan Engineering Course; Agri-Horticultural Course &c., Drawing Painting and Photography; Music and Dancing; Domestic Science and Cookery. The scheme is proposed to be introduced in 1948--49 in about 50 select high schools as an experimental measure to begin with. The syllabuses for these subjects are being finalised.

The scheme is so designed as to provide facilities for girls exclusively in the subjects like "Domestic Science and Cookery".



The scheme includes the study of the regional language, English, Elementary Mathematics, and general information for those taking up the bifurcated courses. 82

Under the scheme proposed, it will be open to any management to have in one and the same school both the bifurcated courses and the ordinary pre-University Course, or if they so desire, to have only the bifurcated course or only the pre-University course. It is however the intention of the Government to see that all the districts in the Province are evenly and adequately provided with various courses suitable to the localities.

#### CHAPTER IV.

A new Arts College was opened during 1946--47 viz., The Vivekananda College, Mylapore. Another Arts College for Muslim Women under the management of Government was also opened during the year 1946--47.

#### CHAPTER V: Technical and Commercial Education.

A copy of the recommendations of the Technical Education Committee of the Post War Education Sub-Committee is in the next page.

In pursuance of the recommendations of the Committee, Government sanctioned the opening of two Engineering Colleges one at Cocanada and another at Anantapur (located at Guindy). The opening of these colleges afforded more facilities for the education and training in Engineering.



REPORT OF THE SPECIAL COMMITTEE ON TECHNICAL EDUCATION.

Chapter I.

Introduction:- The Special Committee was appointed under the orders of the Second Adviser to His Excellency the Governor on 2nd December 1944. The Committee was composed of the following members:

- (1) Sir Meverel Statham, M.A., C.I.E., I.E.S.,  
Director of Public Instruction, Madras: Chairman.
- (2) Sir Henry Howard, C.I.E.,  
Consulting Electrical Engineer to Government,  
Madras.
- (3) Mr. A. Khaleeli, I.C.S.,  
Director of Industries and Commerce, Madras.
- (4) Rao Bahadur Dr. B. Viswanath, C.I.E.,  
Director of Agriculture, Madras.
- (5) Mr. V. Ramakrishna, M.A., I.C.S.,  
Chairman, National Service Labour Tribunal, Madras
- (6) Mr. E.H. Chave, C.I.E.,  
Chief Engineer (General, Buildings and Defence),  
Madras.
- (7) Rao Bahadur N. Govindaraja Ayyangar, B.A., B.E.,  
Chief Engineer, Irrigation, Madras.
- (8) Mr. H.R. Dogra, B.Sc.  
Chief Engineer, P.W.D. (Communications), Madras.
- (9) Dr. J.J. Rudra, D.Sc., M.B.E.,  
Principal, College of Engineering, Guindy.
- (10) Mr. D.I.R. Muir, I.C.S.,  
Secretary to Government, Postwar Reconstruction  
Department and Development, Madras.
- (11) Mr. C.H. Masterman, C.S.I., C.I.E.,  
Member, Board of Revenue, and Commissioner for  
Postwar Reconstruction, Madras.
- (12) Mr. C.R. Porrett, M.B.E., Adviser to Government  
on Manual Training, Teachers' College, Saidapet.
- (13) Lieut. Col. H.R. Irwin - Members:  
and
- (14) Rao Bahadur N.M. Adyanthaya, B.Sc.(Edin),  
Joint Director of Industries and Commerce  
Madras: Member and Secretary.

The terms of reference:- The Committee was required to report on expansion of Technical Education in all its branches with particular reference to the immediate need for technical personnel to carry out the various plans of Government for Postwar Development especially in the first five years."



Meetings:- The Committee held two meetings - the first on 7th December 1944 at which all the 14 members were present and the second on 8th December 1944 at which 13 were present. At the first meeting the programme of Postwar Educational Development as set out by the Central Advisory Board of Education on Post-war Educational Development in India and the Report of the Director of Public Instruction, Madras, on educational Post-war Reconstruction in the Madras Province were considered in detail in so far as they related to Technical Education, and important decisions pertaining to the present position and further expansion of Technical Education of the University standard were taken. At the second meeting, the expansion of schools and institutes of the Artisans and Diploma standards, the question of training teachers and demobilized war personnel and other cognate matters were discussed in detail and recommendations recorded.

#### Chapter II.

Present position:- The Committee recognise at the very outset that there is widespread illiteracy in this Province and that general education, where it exists, is far too literary in character and lacks an industrial bias.

Although the terms of reference do not specifically include General Education, the Committee feel that they cannot altogether omit to mention such of the proposals of the Director of Public Instruction and the Central Advisory Board relating to General Education as have a direct bearing on Technical Education. The recruiting ground for the Industrial and technical institutions of the future would be the higher elementary and secondary schools of the Education Department and if these could impart a preliminary course of training in Science and Crafts, the standard of efficiency of technical schools would be considerably higher than at present.



The Committee therefore welcome the proposals of the Director of Public Instruction to introduce compulsory education by stages upto the VIII Standard and to bifurcate the curricula of high schools into two groups, one consisting entirely of literary subjects and the other consisting of technical subjects in addition to literary and science subjects. The Committee consider that a higher educational standard for the artisan type of worker and a technical bias for the Diploma and Degree types as envisaged in the above Report would go a long way in producing a better class of technical personnel and would conduce to a shortening of the higher courses in technological subjects and consequent saving of expenditure on Technical Education.

The Committee have considered the present position of Technical Education and the existing facilities provided for instruction in the various grades. The present position appears to be that in all grades facilities for meeting the existing or future demand are inadequate and that the quality of the product ~~was~~ produced in some of the institutions is not up to the standard expected by the employers. The existing facilities and future extensions in this regard are briefly summarized below:

Technical Courses of the University Grade:- There are in this province three Universities, namely the Madras, the Andhra and the Annamalai Universities. Of these, the Andhra University has already established courses in Sugar Technology and Pharmaceutics, and has proposed Marine and Aeronautical Engineering. The Annamalai University has proposed to start Mechanical, Electrical and Civil Engineering. The Madras University is proposing to start additional courses in Chemical Technology, Textile Technology and Leather Technology. Besides the University Courses there are Technical Colleges viz., the Engineering College, Guindy, the Agricultural College, Coimbatore and the newly started Alagappa Chettiar



College of Technology which are affiliated to the Madras University. Proposals have been made by the Principal of the Engineering College for the starting of Communication Engineering in the Engineering College, Guindy, and also for Post graduate courses in High Way Engineering, Sanitary Engineering, Town Planning Architecture, Irrigation, Railway Engineering, Dock and Harbour Engineering, etc. The Alagappa Chettiyar College of Technology has started a course in Chemical Engineering.

The present capacity of the existing colleges and Universities for the next five years is estimated approximately at 900 graduates of the University Grade. The Committee consider that the existing facilities are inadequate to meet the demands of future industries in general and the needs of demobilised war personnel in particular. The Chief Engineer (Communications) require 338 Engineers and Subordinates per year. The Chief Engineer (General) estimates that 375 Engineers and licentiates per year would be required for irrigation and drainage. The Chief Engineer for Electricity requires 45 Engineers and Licentiates per year. The Railway and the Director of Industries and Commerce estimate a total of 500 Engineers for the Development of Industries and expansion of Railways. It will thus be seen that the total - estimated requirements of post war developments of industries roads, irrigation and hydro electric power are over 2,500 graduate engineers within the next five years. The development of Agriculture and Forestry will similarly require an increased number of graduates. The Committee therefore resolve that

"In view of the great urgency and need for technical personnel, three additional Engineering Colleges, one being in the Ceded Districts and an additional Agricultural College to be set up in this Province and this recommendation be given the highest priority in any scheme of development".

The Committee further resolves that:



"In view of the need for the development of Forestry and Forest products, Government might revive the Forest College which was abolished a few years ago."

The Committee also resolves that

"Provision should be made for giving wherever necessary adequate training to the returning soldier of all grades at the expense of the State".

As regards the Universities, the Committee realize that they are autonomous bodies and that the courses of studies under their faculties are administered and controlled by their respective Senates; nevertheless there is need for some degree of co-ordination so as to avoid duplication of efforts and lopsided development irrespective of the immediate needs of trade and industry. In this connection, the Committee note that the Andhra University has under contemplation the setting up of degree courses in Marine and Aeronautical Engineering. The Committee feel that there is greater and immediate need for increased facilities in the Andhra districts for Civil, Mechanical and Electrical Engineers and accordingly resolve that

"In addition to the courses already proposed, the Andhra University should be persuaded, to start Civil, Mechanical, Electrical and Highway Engineering Courses and that priority should be given to the latter courses."

Foreign Scholarships:- The Committee note that the system of foreign scholarships awarded by Government in the Department of Industries and Commerce has been kept in abeyance. The development of special industries during the next five years and thereafter would demand a large number of technical experts trained in special subjects. It is estimated that the Director of Industries and Commerce would require during the next five years 100 foreign scholarships. In order to meet this demand it is necessary to revive the system of scholarships, deputations and study leave and award them in accordance with the programme of development of Industries. The Committee therefore resolve that

"Foreign scholarships, deputations and study leave should be revived and that an adequate number should be awarded for the study of Scientific and Technological subjects."



Chapter III.

Technical education of the Diploma Standard:- It is generally recognized that the types of technical institutions provided by the State should, as far as possible, bear a direct relationship to the types of workers needed by industry. The Committee are agreed that between the skilled craftsman and the higher executive, there is an intermediate class of technicians who must not only know the fundamentals of Science and Technology, but also be in a position to interpret drawings and execute work practically. In this category comes the class of foremen, supervisors and minor executives. The existing facilities in regard to this class are provided in the following institutions:

(1) The Upper Subordinate course in Civil Engineering at the Engineering College, Guindy;

(2) The Diploma courses in Mechanical Engineering, Electrical Engineering and Printing Technology of the Government School of Technology, Madras;

(3) The Diploma Course in Automobile Engineering at the Ramakrishna Mission Industrial School, Madras.

(4) The Diploma courses in Mechanical and Electrical Engineering at the C.N.T. Institute, Madras; and

(5) The Diploma courses in Mechanical Engineering, Electrical Engineering and Textile ~~Eng~~ Technology of the P.S.G. and Sons Charity Industrial Institute, Peelamedu, Coimbatore.

For the conduct of examinations there is a Technological Diploma Examination Board constituted by Government to examine and issue Diplomas according to recognised standards of syllabus, equipment and staff. The Board is composed of competent Experts and Engineers and is empowered to affiliate other institutions which come up to their recognised standard. The total capacity of the above institutions is approximately 200 diplomates per annum. The Committee consider that the present output of some at least of these institutions is neither adequate nor up to the higher standard in view for the efficient handling of the future programme of development.



Although detailed data are not at present available it is estimated that future requirements would be of the order of 1000 diplomates per annum. The Committee are convinced that there should be a larger number of institutions spread over the Province. They also feel that the Universities as at present constituted are not the best agencies to impart technical instruction of the Diploma Standard as they have less opportunities of coming into contact with industry. The Committee resolve, therefore, that:

"Diplomas below the Degree standard should not be started by the Universities, that the number of Polytechnics should be increased on a regional basis and that the Standard of instruction and equipment of the existing ones should be raised."

In regard to Agriculture, although there is no need for diploma courses in Agriculture, a practical course of training above the standard of the bifurcated course of a high school but below that of a college course is very necessary, to meet the needs of the returning soldier and to provide a sufficient number of trained teachers for the - bifurcated high schools. The Committee also welcome the starting of the Fisheries Institute at Tuticorin and recommend that it should be further developed into an Institute of the Diploma grade for the training of Masters and Mates.

#### Chapter IV.

Technical education of the Artisan type:- The facilities for training craftsmen and the artisan type of workers are now provided at the industrial schools run by Government, Missionary authorities, private individuals and public bodies like the district boards. There are 63 schools of this type for boys and 27 for girls. The subject taught comprise many of the trades followed in Madras, such as Motor mechanics, fitting, machine work, blacksmithy, moulding, carpentry, cabinet making, embroidery, tailoring etc. The present provision for training is for a total number of 3700 persons.



In addition, a large number is being trained in the factories and workshops. The Committee realise that an accurate estimate of craftsmen under training or actually working in the factories and workshops cannot be ascertained at present. But the available data of factories in the Province and the number of skilled workers in them would seem to indicate that about 5000 boys would be under training. It is estimated that an annual turnover of skilled workers from the above two sources would be of the order of about 1700 persons. The Committee consider that this number would hardly meet post war requirements especially in view of the impending development of industries for which it is understood that schemes are in progress. The Committee would therefore ~~much~~ welcome considerable expansion of industrial schools and evening classes not only for adult workers but also for demobilised war personnel. In this connection the Committee note that the Army Headquarters in the Directorate of Resettlement have in view a scheme for the vocational training of ex-servicemen. It has been reported that Madras has contributed to the Army 33,000 motor truck drivers and when they return, they would require additional training. The Labour Department of the Government of India have 32 technical training centres where trainees are given a preliminary course of intensive training in various trades. We consider that these institutions should be adapted and courses revised or modified so as to serve the needs of not only of the demobilised war personnel but also the additional skilled craftsmen that would be required after the needs of the former are met. The Committee would also recommend that after the rehabilitation period the Provincial Government should take over these wartime institutions under their own management.

The Committee note that in most of the industrial schools the minimum educational qualification for admission is the V Standard, which in the opinion of the Committee is



not sufficiently high for most of the trades. They, however, realize that any immediate raising of the standard would hardly be feasible as it would adversely affect many of the existing industrial schools run by Missionary and Charitable organizations and throw an additional burden on the parents of the boys. In view of these considerations, the Committee resolve that:

"When conditions permit, the minimum educational qualifications for admission to Industrial and artisan type of schools should be raised to the VIII Standard or III Form."

7 The Committee note that the distribution of industrial and technical schools is not uniform over the Province. Although the distribution in the past followed the natural law of "Supply and Demand" it may safely be anticipated that the future development of industry would be on a regional basis. It is necessary for obvious reasons to locate the technical institutions of the future in different parts of the Province having due regard to local industries. The Committee accordingly resolve that:

"Development in all grades of Technical Education should be on a regional basis and that special privileges should be given to backward communities Muslims and Scheduled Castes."

It has been pointed out that in the various local languages of this Province, technical terms are described in different ways by different writers. The Committee recognise that technical and scientific terms as applied to modern Engineering and Technique are not easy of translation into different languages nor are they easily understandable when transliterated in vernacular alphabets. The Committee understand that attempts have been made with some success to write text books in Roman script. The Committee recommend therefore that:

"In the lower grades of industrial schools at least, text books, if any, may be in Roman script in the language of the locality."

Regulation of trade apprenticeships:- The Committee are of the opinion that in addition to the provision made for training of technical personnel in schools and colleges of



the various grades, facilities for apprenticeship in workshops and factories are also essential. At the present time there is considerable difficulty in placing boys in factories and workshops. The absence of any well-established trade unions or an universally accepted system of indentured trade apprenticeships in this Province has created a dearth of skilled craftsmen. The position will become worse in the Post war Development period when the necessity for an increased number of craftsmen will be felt all the more. Even in this machine age, trade apprenticeships play an important part in the training of artisans, technicians and engineers. The committee are convinced therefore that apprenticeships should be fostered and regulated by the State and accordingly resolve that:

"There should be an Apprentice Act enabling Government to make it obligatory on the part of employers to admit apprentices under a regulated scheme."

**Technical Teachers:-** The Committee have considered the proposals contained in Sir Meverel Statham's Report and the Report of the Central Advisory Board and agree with the sentiments expressed therein that teachers of all grades, whether in arts schools or in technical institutions have an important part to play in the shaping of the future generations in all spheres of activity. They should be efficient and ~~at~~ at the same time be assured of a reasonable standard of living. The art of teaching has to be acquired and therefore there should be facilities for the training of teachers of all grades. In order to attract the best type of men for the teaching profession, the scales of salaries of teachers should be fixed at a higher level than those of the present. The committee therefore resolve that:

"The salaries of technical teachers should be on the basis of the Salaries suggested in Sargent's and Sir Meverel's Reports and that there should be additional facilities for the training of Technical teachers of all grades."



Chapter V.

Control of technical education:- The question of control of technical education has been carefully considered. The Report of the Central Advisory Board recommended in effect that Technical Education of the Diploma standard should be placed under a Central Controlling Authority composed of representatives of all interests concerned. With a view to implement the above recommendation the Government of India have proposed to establish an All India Council which would "conduct preliminary investigations with a view to ascertaining the conditions on which the present controlling authorities concerned will be prepared to hand over to the All India Council such technical institutions now controlled by them as in the opinion of the Council it may be desirable to incorporate in an All India Scheme."

The Committee have bestowed anxious thought over this question and are convinced that any measure of control by the central authority in the sphere of education of all grades and types would be detrimental to the interests of this Province where the standards are already higher than those of several other provinces. They agree that some measure of uniformity of standards is desirable and that the Central authority might render advice in this regard. The Committee also appreciate the view put forward by some members that this Province should aim at the highest standard so as to secure international recognition; but they are not convinced that such high standards could only be achieved through the medium of a central authority. The Committee are therefore unable to see the need for setting up an All India Council to control Technical Education. The Chairman National Service Labour Tribunal, had suggested the setting up of a Central Council of Technical Education to lay down standards and conduct examinations. The Committee are convinced however that even this, is unsuitable to the Province



of Madras. The long distances involved coupled with lower standards in other provinces would not only tend to put a brake on the progress aimed at in these proposals but also lower the existing standards at the altar of uniformity.

The Committee therefore resolve (Mr. Ramakrishna agreeing subject to the above proviso relating to a Central Council) that:

is  
"This Committee/ emphatically of the opinion that control of Technical and Industrial Education of all grades should continue to be the sole responsibility of the Madras Government as at present."

#### Chapter VI.

Summary of recommendations:-- The recommendations are:

- (1) That three more Engineering Colleges be started, one being in the Ceded Districts, and that the highest priority be given to this recommendation.
- (2) That one more College of Agriculture be started at a suitable centre and that the Forest College be revived.
- (3) That the Andhra University should be persuaded to start Civil, Mechanical and Highway Engineering in addition to Marine and Aeronautical Engineering and that priority be given to the former.
- (4) That 100 foreign scholarships and the grant of study leave and deputation should be revived.
- (5) That Diplomas below the Degree standard should not be awarded by Universities and that more Polytechnics should be started on a regional basis.
- (6) That when conditions permit, the minimum educational qualification for admission to industrial schools should be raised to the VIII Standard or III Form.
- (7) That in the lower grades of industrial schools, text books should be in Roman Script.
- (8) That there should be an Apprentice Act enabling Government to make it obligatory on the part of employers to admit apprentices under a regulated scheme.
- (9) That there should be additional facilities for the training of technical teachers of all grades and that their salaries should be raised.
- (10) That development of all grades of technical Education should be on a regional basis and that special privileges should be given to backward communities.
- (11) That provision should be made for giving wherever necessary adequate training to the returning soldiers of all grades at the expense of the State



- (12) That the control of Technical and Industrial Education should continue to be the sole responsibility of the Madras Government as at present.

### Chapter VII.

In the foregoing pages, the Committee have attempted to survey the whole field of Technical Education within the short time at their disposal and have indicated in broad outline the steps that have to be taken to meet post war needs during the next five years. A good deal of the data required for specific and detailed proposals are not available nor could they in their opinion be compiled accurately until actual demobilization commences or until the initial schemes of development have taken a practical shape.

Nevertheless the Committee feel that this report would not be complete without an indication of the financial commitments involved in the above proposals. The following statements, therefore, of the capital expenditure and recurring charges have been prepared on the basis of the above recommendations. The figures are approximately and may require modification in the light of actual developments and do not include the expenditure which the Government of India may provide for the training of war personnel during ~~the~~ rehabilitation period.

#### Capital Cost.

|                                                                                                                                                                                                                    | On plant.<br>Rs.<br>Lakhs. | On buildings<br>and hostels<br>Rs.<br>Lakhs. | Recurring<br>charges<br>per annum<br>Rs.<br>Lakhs. |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|----------------------------------------------|----------------------------------------------------|
| <b>Technical Education of the University Grade.</b>                                                                                                                                                                |                            |                                              |                                                    |
| 1. For 3 Engineering Colleges, one Agricultural College and revival of Forest College.                                                                                                                             | 54                         | 20                                           | 10                                                 |
| 2. For additional courses in the Engineering College, Guindy for Communication Engineering, High way Engineering, Laboratory, Post Graduate courses etc., and for refresher courses for demobilised war personnel. | 3                          | 1                                            | 1                                                  |
| 3. Foreign scholarships for 100 scholars in five years (50 in the first year)                                                                                                                                      | ...                        | ...                                          | 2½                                                 |
| 4. For practical research in colleges                                                                                                                                                                              | 2                          | ...                                          | 1                                                  |
| 5. Scholarships for Scheduled Castes backward communities and Muslims (500 Scholarships)                                                                                                                           | ...                        | ...                                          | 2                                                  |



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Technical Education of the Diploma standard.

|                                                                                                            |     |     |    |
|------------------------------------------------------------------------------------------------------------|-----|-----|----|
| 1. For new Polytechnics at Madura, Calicut Mangalore, Hindupur, Vuyyuru and Coimbatore.                    | 22  | 15  | 3½ |
| 2. For new courses and improvements to the Government School of Technology.                                | 1   | ½   | 1  |
| 3. For grant-in-aid to six institutions for improving their equipment and staff.                           | 3   | 2   | 1  |
| 4. For refresher courses to demobilised war personnel and for evening class institutions. <i>Inclusion</i> | ... | ... | ½  |
| 5. Scholarships for scheduled castes, backward communities and Muslims (160 per year)                      | ... | ... | 1½ |

Technical Education of the Artisan types.

|                                                                            |     |     |    |
|----------------------------------------------------------------------------|-----|-----|----|
| 1. For 15 new Government Industrial Schools                                | 7½  | 7½  | 2½ |
| 2. For the improvement of existing schools and for increased grand-in-aid. | 5   | 5   | 1½ |
| 3. For apprenticeships, subsidy and for industrial scholarships.           | ... | ... | 1  |
| 4. For the raising of salaries of technical teachers of all grades.        | ... | ... | 2  |
| 5. Scholarships for Scheduled Castes, backward communities and Muslims.    | ... | ... | 2  |

|        |     |     |    |    |
|--------|-----|-----|----|----|
| Total: | ... | 97½ | 51 | 33 |
|--------|-----|-----|----|----|

R.M. Statham,  
Chairman.



## CHAPTER VI: Adult Education.

Government have accepted the then Director's recommendation that it is unnecessary to launch out a scheme for making illiterate adults as literates. Adult education in the sense understood here is to see that pupils after leaving the schools do not lapse into illiteracy and to do this, special evening classes and libraries and other facilities should be made available for the aged adult pupils. The policy of Government in this regard in recent years, has been to encourage these special facilities. Proposals have been called for by Government for the starting of Night Schools especially to cater to the needs of the labouring classes.

Apart from this, a general scheme for Adult Education has been submitted to Government. The salient features of this scheme are:

- (1) Methods and suggestions for making illiterate adults literate and keep them literate.
- (2) The development of adult education on the real sense through organizing adult education centres, libraries, educational institutions, the radio and the Cinema (Aural and Visual instruction).
- (3) The desirability of taking up a few centres selected in Districts and round about Madras in the first instance and try out the scheme.

The I.W.C.C. Organization (Provincial) has "Paid" Staff Officers in the City and in almost all District Headquarters who do some teaching work in the "Adult" centres in their respective jurisdiction.

Teaching Centres:- A proposal to introduce "Adult Education" as an optional in the B.T. Course is under consideration by the Madras University.

Compulsory Village Uplift work and social service including spread of literacy by University students before or just after graduation is being considered.

## CHAPTER VII: The Training of Teachers.

It is essential that forty thousand teachers are required in connection with the introduction of compulsory elementary



education as visualised in the first five year plan of the Madras Government in the course of the first five years. Having regard to the number of children to be brought under instruction in each of these years, the number of teachers required will be as follows:

| 1st year. | 2nd year. | 3rd year. | 4th year. | 5th year. | Total.  |
|-----------|-----------|-----------|-----------|-----------|---------|
| 8,400     | 6,114     | 7,257     | 8,400     | 9,543     | 39,714. |

To meet this heavy demand for teachers, provision was made during 1946--47 for the training of 4,000 additional teachers (2,000 Secondary Grade and 2,000 higher elementary grade teachers) Provision was also made for the training of Higher Elementary Grade teachers also since it was felt that the time is not ripe now to eliminate this grade of teachers as recommended in the Central Advisory Board Report. To attract a large number of candidates for training, increased facilities were afforded by way of increase in the rate of stipends etc., and by opening 100 new classes in various places. In 1946--47 the Secondary Training course was reduced to one year as an emergency measure to produce a large number of trained teachers. This emergency course was however discontinued.

The recommendation regarding training of teachers is continued on page 52 of the report. Government have sanctioned a scheme for training 4,000 teachers in 1947--48. The idea is to open 100 training classes (Secondary and Elementary together) and admit 40 students in each class. The response to this additional facility provided depends upon several factors, the main, being the salary which the trained teacher can have after training.

Regarding training colleges it is submitted that after the Women's Training College has been opened in Guntur

No fees are levied in Government Training Schools and stipends are granted both to Secondary and Elementary Grade Trainees. No stipends are paid to collegiate trainees. The present rate of stipend is Rs.18/- for Secondary Grade and Rs.12/- for Elementary Grade. Government recently refused to increase this rate to Rs.25/-. An increase in stipend will attract more students for training.

With regard to deputing teachers for foreign countries for the study of upto date method of teaching we are contemplating to send one for such studies very soon.



# CHAPTER VIII: The Health of the School Child.

In this Chapter, two factors are discussed viz., (1) Medical Inspection of School Children; and (2) Physical Education.

## Medical Inspection of School Children.

In drawing up a scheme of Medical Inspection of School children, the proposal of the Medical and Public Health Departments has been taken into account. It is the intention of Government to have a dispensary within three miles of every village and a hospital within a radius of six miles of every village. This will mean approximately having 1110 hospitals and 4445 dispensaries, in other words an addition of 903 hospitals and 3,424 dispensaries to the existing institutions. It is obvious that if this programme is completely carried out in a short period of time, medical inspection of all children in secondary and elementary schools and even the necessary remedial work will become possible. It was, however, considered undesirable to postpone a scheme of compulsory medical inspection for all pupils in secondary and elementary schools until the programme of the medical department is fully complete. Hence it was planned to have a separate agency for carrying out medical inspection of pupils in secondary and elementary schools. The Director of Public Instruction in consultation with the Surgeon General and the Director of Public Health drew out a scheme of medical inspection of school children.

The scheme so drawn up is briefly as follows:

At present, there are approximately 30,26,000 pupils in Standards I to VIII and 3,47,000 in Secondary Schools, making a total of 3,373,000 pupils. It is expected that 2,66,000 children will be brought under instruction additionally each year, with the progressive expansion of compulsory elementary education. The average number of pupils per annum in the first quinquennium will thus be approximately 40 lakhs and at the rate of one inspection every four years, one million inspections will have to be done each year. On the whole, one



one full time medical officer may be expected to do 5000 medical examinations per year. At this rate a staff of 200 medical officers will be required for one million inspections. It has, therefore, been planned to appoint 200 second class Health Officers as school medical officers under an Assistant Director of Public Health who will be administratively under the control of the Director of Public Instruction. These school medical officers are expected to undertake to a certain extent the "follow up" and treatment work. They should also be given a short course of special training at the Ophthalmic, Dental and Ear, Nose and Throat Clinics. It has been provided that the case of defects and ailments requiring special treatment should, however, be taken to <sup>the</sup> District Headquarters Hospitals.

The above scheme was again reviewed to see whether the recommendations made in the "Bhore" Committee Report may be implemented. In the conference held between the Director of Public Instruction and the Surgeon General and the Director of Public Health to consider the recommendations of the Bhore Committee and to see how far the recommendations could be implemented, it was decided that the scheme as detailed above was the most suitable and practical one and that it needs no further revision. The scheme was accordingly placed before the Government for approval. The Government, however, desired that the scheme must be worked out on the following lines:-

- (1) Medical inspection must be at the time of
  - (a) Admission in elementary schools;
  - (b) Admission in the first form or sixth standard
  - (c) Admission in the college.
- (2) Children's clinics should be established in District town to begin with and in Taluk Towns sometime later. In addition to the school medical officers, the help of non-official agencies and doctors should also be sought for.
- (3) The medical inspection fee is also proposed to be levied at Rupee one from children in I to III Forms and classes



of the higher elementary schools; Rs.2/- from students from IV to VI Forms; and Rs.3/- from students in colleges.

(4) It is also proposed to utilise the dispensaries in Taluk Headquarters and others till the children clinics are established in greater numbers. The schools which can reasonably organize the medical inspection of their children on the above lines should be taken up first.

The above Government scheme was discussed in a conference held in the Secretariat recently (17th April 1947). A copy of the G.O. on the subject is reproduced below:

"The Director of Public Instruction is informed that the following scheme has been formulated for the Medical Inspection of school children.

(1) In Rural areas where there are health centres with doctors or where rural medical practitioners of modern medicine are available, medical inspection in schools in such places may be arranged through them.

(2) In urban areas where a fairly large number of schools is found, a school medical service with a nucleus of full paid doctors and if necessary with other doctors on a voluntary part time basis may be appointed for medical inspection as well as follow up work.

(3) While large clinics with all upto date machinery for child treatment may not be possible to be established separately from the Government General Hospitals, it is considered that small clinics which may be able to cover the normal cases of children may be established in the district towns to begin with, to be put in charge of full time doctors of the school medical service. In the meantime, apart from the school medical service, arrangements must be made in the Headquarters hospitals to treat children's diseases of a special nature.

(4) The scheme may be extended along with increasing facilities under the postwar scheme regarding medical clinics.



(5) As regards finance, while voluntary help by doctors could be utilised wherever they are available it is considered that it cannot work long on that basis and so, atleast a part paid system must be established. It is considered that in rural areas referred to in (1) above, a minimum number of students for medical examination could be fixed by Government for every doctor in a health centre or for every subsidised rural medical practitioner and over and above that a rate may be fixed to be paid to them for medical inspection. For the normal follow up case, the children must go to these centres.

It is proposed to levy a fee of eight annas per year for boys in higher classes in Higher Elementary Schools, one rupee per year on boys of Forms I to III, two rupees per year on boys of Forms IV to VI and three rupees per year upon boys of all colleges. The Director of Public Instruction is requested to work out the financial effect of the scheme on this basis and to forward it to Government. He is also requested to offer his remarks on the other aspects of the scheme in consultation with the Surgeon-General and the Director of Public Health.

(6) In the Conference of Medical Inspection of schools which was held in the Secretariat on 17th April 1947 and which was attended by the Surgeon General, the Director of Public Instruction, the Principal, Medical College and others, Dr. Kutumbayya suggested that Doctors might be appointed as Physical Instructors in Schools. While this may not be possible it has been suggested that they may be appointed as School Assistants in Schools like other trained graduates. In addition to looking after the health of the children they can also handle classes on Physiology, Botany, Social Hygiene and also elementary science as most of the medical graduates are Science men in the Intermediate. The Director of Public Instruction and the Surgeon General are requested to offer their remarks on the suggestion."



In the penultimate sentence of the third part in Section 4 of this Chapter, the Committee ~~say~~<sup>say</sup> that "the school physical instructor, if there is one, should also be associated with the (Medical) Inspection, as he (or she) may be able to assist in the removal of some defects by appropriate exercises". This suggestion can be implemented by requiring that a course on medical and physical examinations, the ways and means how the physical education teacher can associate himself or co-operate with the medical officer in charge of the medical and physical examinations should be included in the course of physical education training of physical education teachers and physical directors at the Y.M.C.A. College of Physical Education Saidapet.

Recommendation 34 of the Joint Committee of the Central Advisory Board of Education and Health as set out in Section 17 of this Chapter has been implemented in this Province by the appointment of a Chief Inspector of Physical Education. The appointment of District Inspectors of Physical Education is under consideration.

Recommendations 35 and 36 are being carried out in the course of training of Physical Education teachers at the Y.M.C.A. College.

Recommendation 37 has been in force and is a condition for a grant-in-aid in this Province. But, the ratio of physical education teachers in secondary schools and training schools is in the proportion of 1:250 and L.T. Physical Directors are recommended for appointment in schools of 750 and above.

Recommendation 38 is also being carried out in this Province through the agency of the Regional Physical Inspectors of Physical Education.

Recommendation 39. The progress of Physical education in girls schools has been accelerated by the appointment of a Woman Specialist in Physical Education with an Assistant and the training of Physical Education Instructresses through Government agency. Proposals for Circle Inspectresses of



of Physical Education is before Government.

Recommendation 40 is not fully realised, since a period every day during school hours for physical activities has not yet been set aside. This is the goal aimed at and with the reorganization of the educational curriculum, it is hoped that it may be possible before long. The undue emphasis on drill has been reduced and organized games of physical education are encouraged. Lack of playgrounds, however, does not yet make it possible to organize games to the whole school population regularly every day.

In Section 8 of the Chapter, it is said that "Steps should, therefore, be taken to ensure that teachers are themselves physically fit" and to have them "medically examined before admission into training schools and at intervals after appointment". The requirement of medical certificate for admission into the training schools is now in force; but this needs to be enforced with strictness to ensure that physically fit people only are admitted to the training schools. With the appointment of medical officers in schools, the proposal to have the teachers re-examined at intervals could be easily carried out.

#### CHAPTER IX: Education of the Handicapped.

The Report of the Central Advisory Board contains a chapter on the education of the handicapped. The report divides handicapped children into two main groups - one the mentally handicapped and the other the physical handicapped. While obviously more should be done than is at present being done for the education, for example, of the blind, the deaf and the dumb, a special enquiry will have to be instituted in order to discover the number of mentally and physically handicapped children in this Province. At present, as elsewhere in India, no statistics are available. Before these statistics are made available, obviously no satisfactory programme of advance can be made. The Report of the Central Advisory Board



deals shortly with the question of the segregation or otherwise of handicapped children. This is largely a medical question and will again depend upon the results of the enquiry already suggested."

However, the education of the handicapped is receiving attention in this province. There are in this Presidency 4 schools for the blind, 4 for the deaf and dumb and 1 for the blind, deaf and dumb, working exclusively for the benefit of these children. It needs no mention that new schools of the kind will be allowed to be opened wherever there is demand.

Statistics of physically and mentally handicapped children have been called for - the teachers in each school has been asked to gather this information and the Divisional Inspectors and Inspectresses asked to consolidate the figures and report them to the Director with a view to improving the educational facilities of these defective children.

The question of inclusion of the subject "Education" of the Handicapped" in the syllabus for the B.T. and the M.Ed., courses is engaging the attention of Government.

Government are also considering the question of opening training schools for the training of teachers in special schools for the handicapped with a view to opening more schools for the Deaf and the Dumb etc.

#### CHAPTER X: Recreational and Social Activities:

Practically all the recommendations in this Chapter have to be yet considered and carried out. The provision for recreative and social activities in schools and colleges is not through the Physical education programme, games and sports, and the activities of organizations like Boys Scouts, Girl Guides, Junior Red Cross and so on. But even here the number reached through these erecreative and social activities programmes is very small, mainly because of the lack of playgrounds and - exclusion of these activities from the regular curriculum as extra curricular activities.



As far as the general public and those outside schools and colleges are concerned, there is practically no organized system or no one organization responsible for this work nor are activities of the different associations like the Y.M.C.A. Boys Scouts, Girl Guides, etc., co-ordinated by one agency. It is time that a Recreation Department is organised. The Central Committee suggest a Youth Movement on an All India Basis. This question is also engaging the attention of Government. Whatever may be the name of the organization, provision of social and recreative activities for non-school and college population is very urgent. The Educational Department may perhaps be the best agency for organizing such recreative and social activities programme.

The above does not mean that nothing is being done in this respect. Private clubs sponsoring various games of every kind, Provincial Associations for Games, Sports and Aquatics, Public Playgrounds under local bodies, the Boy Scouts and the Hindustan Scout Organizations, the Girl Guide and the Girl Scout Movements, the Junior Red Cross Group are all contributing to some extent towards the development of the recreative and social activities programme. The Inter-School games Associations, and the University Sports Committees also contribute their share.

CHAPTER XI: Employment Bureau.

Remarks:- Nil.

CHAPTER XII: Administration.

A scheme of reorganization of gazetted staff was submitted to Government.



ITEMS II AND III OF THE AGENDA.

The Department of Education of the Government of India are at present responsible for the following subjects in which Provincial Governments and States are chiefly interested.

(i) Central Advisory Board of Education:- Abolished under retrenchment measures in 1923 the Board was revived in 1935 to advise on educational questions referred to it by Central and Provincial Governments and to call for and circulate information and advice regarding educational developments. The Board has dealt with various important problems of education and its Report on Postwar Educational Development in India has been accepted by authorities concerned as the basis of planning educational development. A list of publications of the Board is appended (Annexure). The Board is being recognised increasingly as the sole means of co-ordinating educational policy on an all India basis.

(ii) Bureau of Education in India:- This is responsible for the collection and dissemination of upto date information on educational progress in India and abroad. It issues the Reports of the Central Advisory Board of Education, the Annual and Quinquennial Reports on the Progress of Education in India and occasional bulletins. An Educational Library is maintained and also a library of Educational films. Schemes for the strengthening of the Statistical staff and the Film Unit have been sanctioned with a view to rendering an efficient service to Provinces and States and educational, scientific and cultural organizations. The Bureau will also take up work connected with the production of suitable text books on modern lines and it has also been asked by the Board to produce suitable literature for Adults and children. It has an important part to play in India's co-operation with the UNESCO.

(iii) The Inter-University Board in India:- This important organization on which all the Indian Universities are represented is concerned with the coordination of University studies in India.



It advises Universities and Governments concerned in regard to University matters. Financial assistance is given to the Board by the Government of India to enable it to maintain an efficient Secretariat.

(iv) The Inter-Provincial Board for Anglo Indian and European Education:- Concerned with the co-ordination of Anglo Indian Education in India, this body too receives financial assistance from the Government of India.

(v) All India Council for Technical Education:- This Council has been set up to survey the entire field of technical education, to consider immediate projects and to secure all India co-operation in the field. Under its auspices six all India Boards of Technical Studies have been set up with a view to achieving a uniformly high standard of education in technological subjects. It is also proposed to set up four Regional Committees of the Council to perform in general the functions of the Council and supervise the work of the proposed Higher Technical Institutions. Plans for the establishment of two such institutions have been prepared and preliminary financial provisions made.

The Indian Institute of Science, Bangalore, has been given substantial financial assistance towards its further development plans. The Delhi Polytechnic is also being strengthened and enlarged to meet upto date requirements of the country.

(vi) University Grants Committee:- The Government of India after careful consideration of the recommendation of the Central Advisory Board of Education set up in 1945 a University Grants Committee to deal in a consultative advisory capacity with the Central Universities. It has been strengthened further to be in a position to take additional responsibility in the development of University Education in India. The Committee will make enquiries and recommendations regarding:



- (1) The lines on which the Universities should develop.
- (ii) The additional amounts in the form of grants-in-aid from public funds required for them; and
- (iii) The Co-ordination of their activities with a view to avoiding unnecessary overlapping.

(vii) Overseas Scholars and Information Bureau:- Under the Overseas Scholarships Scheme 705 Central Scholarships for - advanced studies abroad have been sanctioned so far (1945-47). In addition the provincial Governments awarded 727 scholarships in 1945 and 1946. Educational Liaison Officer in the United Kingdom and the United States of America have been appointed to arrange for the placing of students and for their welfare. Assistance is also rendered to students not directly sponsored by Government. A Bureau of Information for giving information and guidance to students proceeding abroad has been set up. Monthly Bulletins and occupational pamphlets are being issued.

(viii) Scholarships to Scheduled Caste Students:- For the technical and professional education of scheduled caste pupils a special scheme of scholarships has been in operation since 1945--46. In that year 202 scholarships were awarded. Two hundred were renewed in the next year and 300 new scholarships were awarded.

(ix) Educational Development Plans:-

(a) Provincial Plans:- Apart from giving technical advice in regard to Provincial plans, the plans are being partly financed by the Centre. The total amount of central grants provisionally sanctioned for all the Provincial (including educational) schemes in the quinquennium is over Rs.275 crores. For 1947--48 the Provinces have been promised about Rs.45 crores for development purposes, excluding loans. For the Centrally administered areas a provision of Rs.1.86 crores has been made. The share of Education from Central grants is to bear the same proportion as the estimated development expenditure under Education bears to the total of the entire development expenditure, exclusive of productive expenditure. This proportion is expected to be between 15% and 20% of the total expenditure. ~~This proportion~~



Provincial plans for further education of ex-service Personnel are also being financed by the Centre to the extent of 50%.

(b) Central Educational Plans:- Apart from the plans for the Centrally administered areas these plans aim at filling important gaps in the Provincial Plans with a view to making them an effective all India Scheme. The important schemes sanctioned are:

(1) Central Training Colleges:- (i) For High Schools, (ii) For Physical Education, (iii) For Domestic Science and (iv) For technical institutions; financial assistance to the Jamia Millia Islamic and the Viswabharati for training Basic Teachers and Teachers in Arts and Crafts respectively.

A Central Training College for Classical Music is also under consideration.

(2) A Central Bureau of Psychology is to be established.

(3) An All India Council of Social Service, a Central Reference Library and a Central Institute of Modern (Foreign) Languages have also been accepted in principle.

(x) UNESCO and other International Cultural Organizations: India is a member of the UNESCO. Membership carries with it certain obligations e.g. supply periodically to the organization educational, scientific and cultural information. The programme of the Organization and its technical services would be of great help to India. In addition steps are being taken to promote cultural cooperation with neighbouring countries, e.g. Iran, Indonesia, and China through exchange of students and teachers.

(xi) The Department is also responsible for the administration of the following:

1. Archaeological Survey of India and Museums.
2. Imperial Record Department = Central Archives and Indian Historical Records Commission.
3. ~~Anthropological Survey of India~~ Anthropological Survey of India.
4. Imperial Library, Calcutta.
5. Central Universities at Aligarh, Benares and Delhi.

Other important activities in the field of research - grants to scientific and cultural organizations are dealt with in a separate memorandum.



ITEM IV OF THE AGENDA.

Medium of Instruction.

The policy of this Government is that the medium of instruction in Secondary Schools in this Province should be either the mother-tongue or the regional language. The study of English in Primary classes in all schools has been abolished and the study of this subject begins with Form I with effect from the school year 1947--48. This policy has been successful. Those schools which had adopted English as the medium of instruction from the beginning right upto the VI Form have been asked to abolish the English medium progressively beginning from the lowest class so that the pupils who had received instruction in English need not be inconvenienced thereby. It is hoped that in the course of another five years, the medium of instruction in non-language subjects in all schools in this Presidency will be either the mother tongue of the pupil or the regional language of the Province excepting stray institutions which may have to provide English medium in special cases.

ITEM V OF THE AGENDA.

Report of the Committee on National Cultural Trust for India, which met in New Delhi on the 25th and 26th October 1946 as adopted by the Central Advisory Board of Education in January 1947.

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At their meeting held at Mysore on the 24th, 25th and 26th January, 1946, the Central Advisory Board of Education considered a Memorandum <sup>from</sup> for the Royal Asiatic Society of Bengal in regard to the formation of a National Cultural Trust of India (Annexure II) and decided to recommend that the question should be further examined by a Committee to be appointed by the Government of India. In pursuance of this recommendation, a Committee was appointed with the following:

1. Sachivothama Sir C.P. Ramaswamy Aiyar, K.C.S.I., K.C.I.E  
Dewan of Travancore.



2. Dr. P. Bagchi, M.A., D.Litt.,  
Professor, Visva Bharti, Santiniketan.
3. Dr. Tara Chand, M.A., D.Phil (Oxon),  
Vice-Chancellor, Allahabad University.
4. Mr. Justice Norman G.A. Edgley,  
President, Royal Asiatic Society of Bengal.
5. Sir Maurice Gwyer, K.C.B., K.C.S.I., LL.D.,  
Vice Chancellor, Delhi University.
6. Khan Bahadur Dr.M.Hasan, M.A., D.Phil(Oxon),  
Vice Chancellor, University of Decca.
7. Dr. Zakir Hussain, M.A., Ph.D.,  
Principal, Jamia Millia Islamia.
8. Sardar Surjit Singh Majithia, M.L.A., (Central).
9. The Hon'ble Diwan Bahadur Sir K. Ramunni Menon,  
M.A., (Cantab), LL.D.
10. Dr. Mohan Sinha Mehta, M.A., Ph.D., Bar-at-Law,  
Diwan of Banswara.
11. Diwan Bahadur Sir A. Lakshmanaswamy Mudaliar,  
B.A., M.D., F.R.C.O.G., F.A.C.S.,  
Vice Chancellor, University of Madras.
12. Sir Sarvapalli Radhakrishnan, LL.D., D.Litt., F.B.A.,  
Vice Chancellor, Benares Hindu University.
13. Mrs. Renuka Ray, B.Sc. Econ.(Lond).
14. Dr. D.M. Sen, O.B.E., M.A., Ph.D.,  
Educational Adviser to the Government of India.
15. Dr.(Mrs) Malini B. Sukthankar, M.B.B.S., J.P.
16. Mrs. Ammu Swaminadhan, M.L.A., (Central)

(2) The Committee met in New Delhi on the 25th and 26th  
October 1946. The following members were present.

Mrs. Renuka Ray, B.Sc.Econ.(Lond),  
Dr. P. Bagchi, M.A., D.Litt.,  
Dr. Tara Chand, M.A., D.Hil(Oxon),  
Mr. Justice Norman G.A. Edgley  
Sardar Surjit Singh Majithia, M.L.A.(Central)  
Dr.Mohan Sinha Mehta, M.A., Ph.D., Bar-at-Law,  
Dr. D.M.Sen, O.B.E., M.A., Ph.D.,  
Dr.(Mrs.) Malini B.Sukthankar, M.B.B.S., J.P.  
Mrs. Ammu Swaminadhan, M.L.A., (Central)  
Mrs.

Mrs. Renuka Ray presided over the meeting.

Dr. Akhtar Hussain, D.Litt.(Paris), Assistant Educational  
Adviser to the Government of India was Secretary to the Committee.



Dr. S.N. Sen, M.A., Ph.D., B.Litt.(Oxon), Director of Archives and Dr. N.P. Chakravarti, M.A., Ph.D., Joint Director General of Archaeology in India, attended the meeting as observers.

3. The following members were unable to be present owing to illness or other reasons:

Sachivottama Sir C.P. Ramaswamy Aiyar, K.C.S.I., K.C.I.E.  
Sir Maurice Gwyer, K.C.B., K.C.S.I., LL.D.,  
Khan Bahadur Dr. M. Hasan, M.A., D.Phil(Oxon),  
Bar-at-law.

Dr. Zakir Husain, M.A., Ph.D.,  
The Hon'ble Diwan Bahadur Sir K. Ramunni Menon,  
M.A.(Cantab), LL.D.,

Diwan Bahadur Sir A. Lakshmanaswami Mudaliar, B.A.,  
M.D., F.R.C.O.G., F.A.C.S.,

Sir Sarvapalli Radhakrishnan, LL.D., D.Litt., F.B.A.

4. The Agenda before the Committee was as follows:

(1) To consider the desirability of setting up a National Cultural Trust for stimulating and co-ordinating the cultural activities in the Country.

(2) To consider the constitution and functions of such a Trust, in the light of the decision on item 1 of the Agenda.

(3) To consider the ways and means of setting up the Trust.

(4) To consider the minimum administrative machinery for the efficient functioning of the Trust.

(5) To consider any other matter that may be raised with the consent of the Chairman.

5. Papers circulated along with the Agenda to the members are set out in the Annexure in addition to the following papers:

The Memoranda from the Royal Asiatic Society of Bengal containing proposals on Cultural Reconstruction. (Annexures I to VI).

6. The Committee considered carefully the Memorandum of the Royal Asiatic Society of Bengal and agreed with its object that it was desirable, to establish an organisation to stimulate and promote the culture of the Country. India has a precious cultural heritage. If she is to build afresh a civilisation worthy of her heritage, it must not ignore those moral and aesthetic values which provided so stable a foundation in the past. What is needed is to create an



environment which would stimulate and sustain creative activities in the cultural field. At present there is no suitable organisation to foster and coordinate the development of cultural activities of the Country as a whole and creative artists have often to work in environments which are by no means congenial to any aesthetic pursuits. An independent body of the kind suggested by the Royal Asiatic Society of Bengal and as representative as possible of the various cultural elements in Indian life should, therefore, be set up with the least possible delay to fill this important gap in the life of this Country. The Committee recommended that such a body could appropriately be called the "Indian Cultural Trust".

7. The Committee were of the opinion that while the Trust should be constituted by a Charter or by an Act of the Legislature, and should be handsomely endowed by the Central Government, it must function as an autonomous body with a preponderant non official element. The main function of the Trust should be <sup>to</sup> encourage cultural activities and it should operate through appropriate Academies and Committees.

#### Functions.

In addition to the functions to which reference is made below in connection with the proposed Academies, the main functions of the Indian Cultural Trust in the opinion of the Committee should be:

- (i) To encourage cultural educational and research with particular reference to the preservation and development of traditional Indian Culture in relation to such subjects as Literature, Architecture, Sculpture, Painting, Music, Dramatic Art and Dancing.
- (ii) To acquire for the State sites, monuments, manuscripts pictures or other objects of importance from the point of view of Indian Culture.
- (iii) To advise the Government of India and the Provincial Governments with regard to cultural matters.
- (iv) To co-operate with Indian Universities in the development of activities in the purely cultural fields.



(v) To co-operate with the learned societies of India in order to encourage and expand the cultural side of the work now performed by them.

(vi) To publish suitable popular literature on cultural matters.

(vii) To maintain close touch with all parts of India (including the States) by holding periodical conferences.

(viii) To organise Archaeological and other cultural missions to foreign countries and generally to develop and extent existing cultural contacts between Indian and other countries.

### Constitution.

The Committee recommended the following constitution for the Trust:

1. Chairman of the Inter-University Board
2. President of the National Institute of Sciences
3. President of the Royal Asiatic Society of Bengal
4. President of the Visva Bharti
5. The Head of the Jamia Millia
- 6-15. Ten members to be nominated by the Government of India, including representatives of Museums, Libraries etc., five of whom will represent the Principal cultural elements in the Indian States.
- 16-26. Eleven members to be nominated by the 11 Provincial Governments who shall be persons eminent in the cultural life of the Country.
- 27-30. One member to be nominated by the Council of State and three members by the Central Legislative Assembly.
- 31-33. Three members to be nominated by the All India Federation of Chambers of Commerce.
34. The Director General of Archaeology in India.
35. The Director of Anthropological Survey of India
- 37-47. Eleven members to represent the proposed Academies five to be elected by the Academy of Letters and three each by the Academies of Arts and Music.

The Trustees will have power to elect not more than three additional members; the total number of trustees shall not exceed 50.

The tenure of office of the Trustees will be five years in the case of each member of the Trust other than the ex-officio members.

The Committee further recommended that the Indian Cultural Trust should perform its functions through the Agency of the following committees.



- (i) A Finance Committee
- (ii) A Committee for the control and establishment of National Parks and for the acquisition of important sites and National Treasures.
- (iii) A Foreign Relations Committee
- (iv) A Committee for the publication of general cultural literature; and
- (v) Such other committees as the Trustees may consider it necessary to constitute.

8. The Committee suggested that the main activities of the Trust should be carried on through the medium of academies of which the following three, in the first instance, should be constituted:

- (i) The Academy of Letters which will deal with Indian Languages and Literature, Philosophy and History.
- (ii) The Academy of Arts (including the graphic, plastic and applied arts) and Architecture.
- (iii) The Academy of Music, Drama and Dancing.

The object of these Academies will be to foster and develop the subjects with which they deal and to promote the study of those subjects with a view to maintaining the highest possible standards of achievement.

It is contemplated that each Academy will be an autonomous body with a separate endowment which may be supplemented by grants-in-aid from the Trust and donations from other sources. The Trust will be the co-ordinating authority in regard to the work of these Academies. It will allow complete freedom to the Academies in the matter of their cultural activities, but in regard to matters of finance it may exercise a general control over the Academies by means of Regulations. The Academies will have power to frame rules with regard to their own functions which are not inconsistent with the regulations framed by the Trust.

Each Academy will be administered by a small Council and a President to be elected by the Fellows. The number of Fellows should be restricted in the case of the Academy of Letters to 100 persons, while in the case of the Academies of Arts and Music, the number of Fellows will be limited to 50 for each Academy.



The Committee recommended that in the Charter or in the Act of the Legislature by which the Indian Cultural Trust and the Academies would be constituted, the names of not more than 30% of the proposed number of Fellows should be mentioned as "Foundation Fellows", the remainder being elected by the Fellows as persons of suitable eminence become available. Not more than five new Fellows would be elected annually in the case of Academy of Letters and not more than three each in the case of the other two Academies. The Fellows on election will hold office for life.

At their annual meeting the fellows of each Academy will elect its Council and also the President of the Academy. After their election the first Council will appoint a permanent Secretary.

The Council of the Academy will consist of not more than 15 members in each case, including the permanent Secretary, who will be an ex-officio member of the Council.

9. The main functions of each Council will be:

(i) To manage the affairs of the Academy and for this purpose to frame such Rules as may appear to them to be necessary for its proper administration, provided that such Rules are not inconsistent with any Regulations framed by the Trustees of the Indian Cultural Trust. All rules so framed should be reported for the information of the Fellows at their next meeting.

(ii) To superintend the publication of periodical or other work published by the Academy.

(iii) To prepare and submit to the Annual meeting of the Fellows a report on the general concerns of the Academy, which report should be submitted to the Trustees of the Indian Cultural Trust with any recommendations which the Fellows might consider it necessary to make.

(iv) To take such legal proceedings as might be necessary in the interests of the Academy.



(v) To make recommendations to the Trustees of the Indian Cultural Trust for the affiliation of other cultural institutions and for making grants-in-aid to such institutions.

(vi) To award prizes for work of exceptional merit.

(vii) To organize lectures and conferences.

10. The Committee then considered the financial aspect of their proposals. They came to the conclusion that the autonomy of the Trust and continuity of its work would only be ensured by a substantial endowment. The endowment should yield sufficient recurring income to meet the administrative and other charges of the Trust and its components. On a rough basis, the Committee estimated that the annual expenditure on the combined Secretariat might <sup>amount</sup> ~~be~~ to Rs. one lakh approximately. The expenditure connected with the other functions mentioned above would be about Rs. 10 lakhs per annum making a total of Rs. 11 lakhs. It would, therefore, be necessary to provide the Trust with an endowment of not less than Rs. 4 crores to enable the Trustees to perform their functions properly.

The Committee hoped that if the Central Government undertook to contribute half of this sum, a quarter could be raised from the States and another quarter from the Provincial Governments.

11. The Committee then took into consideration two other Memoranda from the Royal Asiatic Society of Bengal relating to the development of cultural contacts between Indian and other countries.

The Committee took note of the fact that in India efforts are being made to develop cultural relations with foreign countries, and Societies and Committees have been established for this purpose; and that, in some countries, Committees have been established to develop such contacts with India. The Committee, therefore, recommended that an interim Standing Committee should be appointed by the Government of India immediately more or less on the model of the proposed Indian Cultural Trust, to develop cultural contacts with other countries.



and to co-ordinate the work of organizations already established in India for this purpose.

12. The following is a summary of the main conclusions and recommendations of the Committee:

(i) It is desirable to establish an autonomous body called the "Indian Cultural Trust" to stimulate and promote the Cultural life of the country.

(ii) The Trust should be constituted by a Charter or an Act of the Legislature and should be handsomely endowed by Government.

(iii) The functions and constitution of the Trust should be generally on the lines recommended in para. 7 of the Report.

(iv) The main activities of the Trust should be carried on through Academies, of which the following three should be constituted in the first instance.

- (a) The Academy of Letters.
- (b) The Academy of Arts (including the Graphic, Plastic and Applied Art) and Architecture.
- (c) The Academy of Music, Drama and Dancing.

(v) Each Academy should be an autonomous body with a separate endowment which may be supplemented by grants-in-aid from the Trust and donations from other sources.

(vi) The Trust will exercise a general control over the Academies in regard to financial matters by means of regulations. In other matters the Academies will be independent of the Trust.

(vii) The lines on which the Academies may be constituted are indicated in para 8 of the report.

(viii) The functions of the Council of the Academies are outlined in para 9 of the report.

(ix) The initial endowment of the Trust should be not less than Rs.4 crores to enable the Trustees to function properly.

If the Central Government contributed half of this sum, a quarter could be raised from the Provincial Governments and the balance from Indian States.



(x) An interim Standing Committee should be appointed by the Government of India immediately to develop cultural contacts with other countries and to co-ordinate the work of organizations already established in India for the purpose.

# ANNEXURE I.

A note on the organization of Cultural development in India, by the Secretary to the Government of India, Department of Education:

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The Royal Asiatic Society of Bengal has put forward proposals for a National Cultural Trust which are circulated to the members. The Society has also put up proposals for a National Academy of Arts and Letters and a National Parks Organization. The functions proposed for the National Cultural Trust include those to be covered by the two other organizations. In fact, it is suggested that the National Academy of Arts and Letters should be under the immediate control of the Trust.

2. It will be agreed in all quarters that there is much to be fostered and developed in the country in the field of art and culture and that in particular, steps should be taken to stimulate public interest in the arts and to raise the standing of the artist in public estimation. At the same time it will be generally accepted that Government should not undertake any direct control of the activities in the field of art except perhaps in the educational field.

3.-In considering the nature of the organization for the subjects proposed for the National Cultural Trust, the first question which arises is whether we can have one organization dealing with all of them. In the field of letters, the poet, dramatist or author, is generally able to achieve not only a tolerable living but also maintain some social status. Moreover, it is almost



impossible to divorce Literature from History and Philosophy and this shows the importance of the co-operation of Universities and other educational authorities. There is also a risk that by linking Letters to Arts, the needs of the Artists will not receive the same consideration as those of letters. It is therefore more appropriate to have two parallel organizations; one for Letters and the other for Arts. In England the body concerned with Letters is the British Academy. It is hoped to place copies of the Constitution of this body before the Committee.

4. So far as the Arts are concerned, there are three bodies concerned with the subject in England viz.,

- (1) Royal Academy
- (2) Arts Council (Formerly Council for the Encouragement of Music and the Arts)
- (3) Royal Fine Arts Commission.

The Royal Academy's authority and activities are confined to a particular branch of art, viz., Painting, Sculpture and Architecture. The Arts Council was founded in 1941 to ensure that the extraordinary conditions created by the war did not result in the complete destruction of artistic activities. The Council has three panels under the headings Music, Art and Drama. Under Art are dealt with painting, ballet design, design in houses and everyday life, book illustration, home and town planning, needle work and embroidery and typography. The Council's funds derive entirely from Government. Treasury criticism is not directed towards the particular objects selected for assistance. It is understood that the Council will continue its useful activities and has in fact prepared a five year plan.

The Royal Fine Arts Commission was set up to enquire into such questions of public amenity or of artistic importance as may be referred to them by Government departments and public or quasi-public bodies. It is a purely advisory body. The Commission is composed of five laymen, seven Architects, two Painters, two Sculptors and an Engineer. Subjects which







associations of individual arts to serve on them. These bodies will no doubt need substantial assistance from public funds though, in view of their nature, they can also look forward to endowments from private individuals.

6. Regarding the organization for parks and monuments, it should be noted that there is a suitable machinery for dealing with such questions which arise in the Archaeological field. As regards other buildings, sites of beauty, reserves, etc., it seems a separate and independent organization will be necessary. The Corresponding body in England is the National Trust. The President and Chairman of the Council is H.M. Queen Mary. The Council which is composed of fifty members (one half nominated by different learned bodies, the other elected by the members of the Trust), appoints its Executive Committee. The Executive Committee in its turn appoints number of Sub-Committees. Chief of these are the Finance and General Purposes Committee and the Estates Management Committee. The Trust enjoys statutory powers to hold land and buildings inalienably and for all time and has also certain other important powers and privileges.

## ANNEXURE II.

### THE NECESSITY FOR A NATIONAL CULTURAL TRUST.

Letter No.228 dated 26th January 1945 from the General Secretary, Royal Asiatic Society of Bengal to the Secretary to the Government of India, Department of Education, Health and Lands, New Delhi.

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In several of their previous letters to the Government of India, this Council have endeavoured to emphasise the necessity for developing the cultural side of Indian life in connection with postwar reconstruction. They fully realise the value of scientific, economic and industrial



development on which so much thought is now being concentrated, but they feel that, unless steps are taken simultaneously to develop the cultural life of the people, there is a danger that India may lose spiritually more than she is likely to gain materially in the race for postwar prosperity. So far, the Council have directed the attention of the Government of India to a few aspects of this problem. They have pointed out the importance of providing permanent records of India's cultural history from the earliest times in National and Provincial Museums. They have also stressed the necessity for preserving the ancient monuments of India and have discussed the question of the effective utilisation of such monuments in connection with cultural education by making them more accessible to Indian travellers or visitors from other countries.

(2) The Council feel, however, that so far they have only touched the fringe of this vital problem. In the past, India's contributions to world culture have been of inestimable value, especially in the fields of literature, religious philosophy, ~~extinct~~ architecture and the fine arts. The great traditions of the past still remain, but, unless prompt steps are taken to prevent such a catastrophe, there is an imminent danger that they may be submerged and lost in the flood of twentieth century materialism. The question therefore arises as to what steps, if any, should be taken to utilise everything that is best in India's ancient culture in connection with Postwar reconstruction. Although the Council feel that cultural, as opposed to academic and technical education, should ordinarily be left to non-official agencies and that learned Societies and the general public should be invited to take an active part in the matter, they are nevertheless of the opinion that under present conditions some encouragement and assistance from the Central Government is essential.



(3) In the first place, an organization should be established which might be known as the National Cultural Trust. Although it is desirable that this Trust should be in touch with Government it should be as far as possible non-official and autonomous. At the inception of the scheme it might be necessary for Government to endow the Trust with sufficient funds to enable it to fulfil its proper functions but, for its main regular income, it would have to rely on financial support from the public. This Council believe that all Indians of rank, wealth and education are proud of their great cultural heritage and they have no doubt that the requisite propaganda will secure the income necessary to ensure the success of the project.

(4) The main functions of the National Cultural Trust would be:-

- (i) To encourage cultural education and research with particular reference to the preservation and development of traditional Indian culture in relation with such subjects as literature, sculpture, painting, music, dramatic art and dancing.
- (ii) To acquire for the nation, sites, monuments, manuscripts, pictures or other objects of importance from the point of view of Indian National Culture
- (iii) To advise the Government of India and the Provincial Governments with regard to cultural matters which are beyond the scope of the ordinary school or college curriculum.
- (iv) To co-ordinate and assist in the development of the activities of Indian Universities in the purely cultural field.
- (v) To co-operate with the learned Societies of India in order to encourage and expand the cultural side of the work now performed by them.
- (vi) To publish suitable popular literature in connection with cultural matters.
- (vii) To maintain close touch with all parts of India (including the States) by holding periodical conferences.

(5) With regard to the first of these point I am to say that the Council have under their consideration a scheme for the establishment of a National Academy of Arts and Letters,



with regard to which the Government of India are being addressed separately. It is intended that this Academy should function under the immediate control of the National Trust. While the Council do not contemplate that this Academy will assume any direct administrative control or responsibility in respect of similar institutions in the Provinces or the Indian States, they expect that it will maintain a high standard of efficiency and taste, which other smaller Academies in the Council will seek to achieve. It will be a centre not merely for research and instruction in the fine and liberal arts but also for the training of persons deputed for this purposes by the Provinces and the States. The advice of experts from the Academy would be available if required by the Governing Bodies of local cultural institutions and, provided the Council of the Academy was satisfied that any such local institution had attained a reasonable standard of efficiency and deserved encouragement, it would be open to them to recommend to the Trustees that it should be given financial assistance in the form of a grant-in-aid from the funds of the National Trust.

(6) The second function proposed for the Trust would bear some resemblance to the work which is performed by the National Trust in England. The ultimate use to be made of the acquisitions would depend on their nature.

(7) As regards the third point, it is not intended that the National Trust should be concerned with the control or administration of museums. These would remain as at present under the Central and Provincial Governments assisted by the Trustees of the National Museum in the manner indicated in this Council's letters Nos. 2422 and 2736 dated 24th Novr. 1944, and 20th December 1944, respectively. Further, the Archaeological Department would continue to be administered as at present, but with the assistance of the recently constituted Archaeological Advisory Board. Except with regard to these



matters, the Council hope that, in due course, the functions of the National Trust would gradually approximate to such as are performed in some European Countries by the Department of Fine Arts. Apart, however, from its relations with the National Academy and items 2 and 6 ~~from~~ mentioned in para 4, the Trust would perform most of its functions not by the method of direct administration but as an advisory body with authority in suitable cases to allot grants-in-aid, to endow fellowships or scholarships, or otherwise to assist the Central and Provincial Governments or the States in the cultural development of India.

(8) The relations between the Trust and the Universities would naturally vary according to the prominence given to purely cultural education in the Universities concerned. The activities of most of the Indian universities are necessarily restricted by financial difficulties, and the average student, confined as he usually is to a rigid scientific or literary curriculum, has little opportunity to interest himself in culture in the wider sense of the term. On the other hand, cultural research of great national value is often undertaken at the post graduate stage in some of the Universities. What seems to be required at present is to encourage the formation of organizations such as exist in England and American Universities to foster the interest and activity of students in cultural matters outside their ordinary curriculum, and the publication in popular and attractive form of the results of cultural research. This is a field in which the help and co-operation of the National Trust could not fail to bear fruit. Further, their help in widening the scope of University education by endowing University Extension Lectures might have a very good effect.

7 (9) The assistance of the learned Societies of India would be of the greatest importance to the National Trust, especially in connection with the development of the popular side of the movement. The Royal Asiatic Society of Bengal



and its sister Societies in other parts of India are not merely groups of scholars associated for the purpose of scientific or cultural research. Probably the majority of the members of these bodies are ordinary intellectual people, who are not professional scientists or educationalists, but who find - stimulus and recreation in culture and learning. In any cultural revival the influence of such bodies, if properly, directed, might be of inestimable value to the country. In fact, in connection with the scheme which is now being outlined, the learned Societies would be in effect the agents of the National Trust within the areas from which the majority of their members are drawn. In a small way the Royal Asiatic Society of Bengal is endeavouring to further the cause of culture by holding weekly Discussion Meetings (which are open to the public) at which well-known people are invited to speak on various scientific/<sup>or</sup>cultural topics of interest to educated Indians and visitors to India. These talks have become popular not only with members of the Allied Forces but also with the ordinary residents of Calcutta and the interest which they have aroused is reflected by a considerable increase in applications for permanent membership of the Society. Possibly this side of the Society's work might be further developed by the publication of a number of popular hand books on the history, religion and literature of India or with regard to some of her ancient cities and provinces. It might also be possible to expand the very important work on which the Society has been engaged for many years in connection with research and the publication in the Bibliotheca Indica of ancient treatises of unique value. Further, in any cultural survey which may be undertaken at the instance of Government or the National Trust (if and when constituted), this Council would always be prepared to take <sup>a</sup> part and they are only too anxious to assist the cause of cultural reconstruction in any way in which their help may be required. The Council have little doubt that most of the other learned Societies of



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India would also be ready to co-operate to the best of their ability.

(10) As regards the sixth item mentioned in para 4, the Council feel that there is at present much scope in India for good popular literature (both for young people or for adults) on such subjects as Indian art and architecture, history, archaeology and the religion and ancient customs of the country. There is also a scarcity of good books for the intellectual traveller. It would be an important function of the National Trust to remedy this deficiency by the establishment of a good Publication Department. In this matter help would probably be forthcoming from the Universities and learned Societies.

(11) The seventh of the suggested functions of the National Trusts calls for little comment. Such Conferences should be held as frequently as possible in different parts of India for the purpose of keeping the Trustees in touch with the views of the leading people in all the chief cultural centres of the country. The sessions should be arranged to coincide with public holidays in order that there may be little interference as possible with the professional work of the people who are asked to attend the Conferences.

(12) It would of course be desirable to constitute the proposed National Trust by a special Act of the Central Legislature. The Trust would require a permanent Secretariat with its headquarters at New Delhi or possibly at Calcutta. The Board of Trustees should contain representatives from British India and States and should include businessmen and members of the learned professions.

(13) Finally, I am to suggest that the Government of India should appoint a Committee of Enquiry for the purpose of making a general survey of those branches of traditional Indian culture, which are still alive or are capable of being revived for the welfare of the entire community. The survey should deal with such subjects as vernacular literature



religious philosophy, the drama, architecture, painting, sculpture, the decorative arts, music and dancing. Although the Committee should not be too large it should be representative of cultured opinion in India as a whole, including the Indian States. It should also contain representatives from some of the leading learned Societies of India. The main committee might find it convenient to entrust the survey with regard to particular subjects to small sub-committees.

14. After completing their survey the Committee should submit their recommendations to the Government of India on the following points:-

- (a) Methods to be adopted for preserving traditional Indian Culture in localities where protective measures are necessary for this purpose.
- (b) The general development of cultural life in India with regard to the subjects mentioned in para 13.
- (c) The Committee's views might be also ascertained with regard to this Council's proposal for the formation of a National Cultural Trust and the financial implication of the scheme. They might be invited to offer suggestions with regard to the scope and activities of the proposed organization or to put forward any alternative suggestions for cultural reconstruction in India.

#### ITEM VI OF THE AGENDA.

The following additional information is given to what is already furnished in the notes prepared by the Government of India under this item.

A sum of Rs.500/- is being paid annually by the Government of Madras to the Indian Institute of Science, Bangalore.

The Government of Madras are also sanctioning a grant of Rs.1,000/- annually to the Bhandarkar Oriental Research Institute, Poona, towards the cost of preparation of a critical edition of the "Mahabharatha" for a period of ten years from 1941--42 or until the work is completed, whichever is earlier.

#### ITEM VII OF THE AGENDA.

The Director of Public Instruction is interviewing candidates of the Defence Services for appointment to the various categories in the Educational Department.



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No.F.12-5/47-E.II.  
GOVERNMENT OF INDIA,  
MINISTRY OF EDUCATION,  
New Delhi 3, the 4th September, 1947.

Dear

Please refer to my D.O. letter No.F.12-5/47-E.II, dated the 29th June, 1947. The Hon'ble Minister for Education has now decided to hold the Educational Conference (originally fixed for the 11th and 12th July, 1947) at New Delhi on the 6th and 7th October, 1947. I shall be grateful, if you will kindly inform me, as early as possible, whether you require accommodation to be arranged by us and intimate the dates and time of your arrival at and departure from New Delhi.

2. As regards the Agenda, one more item has been added to it and a revised copy thereof will be sent to you shortly, with the necessary additional papers.

3/-.....



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3. A telegraphic intimation of the acceptance of the invitation and of accommodation requirements will be appreciated.

Yours sincerely,

*John Sargent*  
(JOHN SARGENT).

To

*The Hon'ble Sri T.S. Avinashilingam*  
*Chettiar,*  
*Minister for Education,*  
*Madras.*

'THAKAR'  
70/4.9.47/D.

No. F.12-5/47-E.II.  
GOVERNMENT OF INDIA.  
MINISTRY OF EDUCATION.  
New Delhi, the September, 1947.

Dear Sir,

In continuance of D.O. letter No.F.12-5/47-E.II, dated September 4, 1947, from Sir John Sargent, I forward herewith a copy of the revised agenda with necessary additional papers, in connection with the Conference of Provincial Ministers of Education etc., to be held at New Delhi on the 6th and 7th October, 1947.

In case you have not already intimated your accommodation requirements, I am to request you to be good enough to do so immediately.

2. In view of the addition of a new item VII of the agenda, I am to request that the papers previously circulated for item VII of the original agenda, may be treated as the <sup>memo</sup> for item VIII of the revised agenda.

Yours sincerely,

The Hon'ble Sri T.S.Avinashilingam  
Chettiar,  
Minister for Education, Madras,  
Madras.

*Sud. D. 15/9*  
60 copies.  
Dated 15/9

*B. Ghosh*  
FOR SECRETARY.



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EDUCATIONAL CONFERENCE, NEW DELHI, 1947.

A G E N D A .

Place : New Delhi.

Dates Oct. 6 and 7, 1947.

Time : 10.30 a.m.

- I. To consider what substantial modifications, if any, are desirable in the plan of Educational Development set out in the Central Advisory Board of Education's Report, in the light of experience gained since it was published. (It is proposed that the chapters in the Report should be discussed seriatim).
- II. To consider in what ways and under what conditions the Centre can render most effective help to the Provinces in carrying out schemes of Educational Development.
- III. In the light of decisions arrived at on item 2, to consider what immediate practical steps can be taken for improving cooperation between the Central and Provincial Governments and between one Province and another.
- IV. To consider the medium of instruction at all stages of Education.
- V. To consider steps for encouraging the study of National culture and oriental classics.
- VI. To consider what steps should be taken to encourage research in all branches of learning.
- VII. To receive and consider the Interim Report of the Scientific Manpower Committee.

P.T.O.



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VIII. To discuss proposals for improving the material for the officer ranks of the Defence Services.

(This item will be taken up at the beginning of the afternoon session on the 7th of October with the permission of the Chairman).

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Educational Conference, New Delhi, 1947  
Item VII of Agenda.

For official use only.

BUREAU OF EDUCATION, INDIA.

SCIENTIFIC MAN-POWER COMMITTEE.

INTERIM REPORT

Programme for the Immediate Improvement  
and Expansion of Facilities for Scientific  
and Technical Education, Research &  
Training.

New Delhi,  
August 22, 1947.



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The Scientific Man-power Committee was set up by the Government of India in April 1947 under the Chairmanship of the late Sir Shafaat Ahmed Khan as notified in a press communique issued on April 19, 1947. The present composition of the Committee is as shown below.

1. Sir Shanti Swarup Bhatnagar, F.R.S.  
Director,  
Council of Scientific and  
Industrial Research, Delhi. (Chairman)
2. Dr. Birbal Sahni, F.R.S.,  
Professor of Botany,  
Dean of the Faculty of Science,  
Lucknow University,  
Lucknow.
3. Sir K.S. Krishnan, F.R.S.,  
Director,  
National Physical Laboratories,  
University Buildings,  
Delhi.
4. Dr. Homi Bhabha, F.R.S.,  
Director,  
Tata Institute of Fundamental Research,  
Peddar Road,  
Bombay.
5. Mian Afzal Husain,  
Member, Punjab & N.W.F.P. Joint  
Public Service Commission,  
Lahore.
6. Professor J.N. Mukherji,  
Director,  
Indian Agricultural Research Institute,  
Delhi.
7. Dr. M. Qureshi,  
Director,  
Board of Scientific & Industrial Research,  
Hyderabad (Deccan).
8. Rai Bahadur A.N. Khosla, I.S.E.,  
Chairman,  
Central Waterways, Irrigation and  
Navigation Commission,  
New Delhi.
9. Mr. D.N. Wadia,  
Mineral Adviser to the Govt. of India,  
Ministry of Works, Mines and Power,  
New Delhi.
10. Dr. K.A. Hanied,  
c/o C.I.P.L.A. Manufacturers of Chemical &  
Pharmaceutical Products,  
289, Belassis Road, Byculla, BOMBAY



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- 2 -
11. Mrs. Hansa Mehta,  
16, Altamont Road, Cumballa Hill,  
Bombay.
  12. Prof. Humayun Kabir,  
Member, Railway Enquiry Committee,  
Railway Board,  
New Delhi.
  13. Mr. G.L. Mehta,  
7, Wellesley Place,  
Calcutta.
  14. Major B.N. Mitra,  
Defence Department,  
New Delhi.
  15. Wing Commander H. Singh,  
Technical Branch, Air Headquarters,  
New Delhi.
  16. Rao Bahadur Dr. K.C.K.E. Raja,  
Officer on Special Duty,  
Ministry of Health,  
New Delhi.
  17. Dr. S.R. Sen Gupta,  
Deputy Educational Adviser, (Technical),  
Ministry of Education,  
New Delhi.

(Secretary)

The following are the terms of reference of the Committee:-

- (1) To assess the requirements for different grades of scientific and technical manpower, taking a comprehensive view over a period of the next ten years, of the needs of Government (civil and defence), of teaching and research, and of industry, agriculture, transport, medicine and other fields dependent on the use of scientific and technical manpower;
- (2) To make recommendations regarding action to be taken during the next five years to meet these requirements, in particular with reference to

- (a) the immediate improvement and expansion of facilities for scientific and technical training in Indian universities and special institutions.

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- (b) training overseas in scientific and technical subjects,
  - (c) the promotion and development of scientific and technical research,
  - (d) the utilisation of scientific and technical manpower, and
  - (e) the maintenance of a register of scientific and technical personnel to facilitate their utilisation to the best advantage.

At its third meeting held on the 22nd and 23rd August, 1947, the Scientific Man-power Committee adopted the following report prepared by its sub-committee adumbrating measures for the immediate improvement and expansion of facilities for scientific and technical education, research and training.



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REPORT OF THE SUB-COMMITTEE  
OF THE  
SCIENTIFIC MAN-POWER COMMITTEE.



INTRODUCTION.

At its exploratory meeting held on the 12th and 13th May, 1947, the Scientific Manpower Committee came to the conclusion that the available data on which <sup>to base</sup> the Committee's work were inadequate and that a considerable amount of information, both qualitative and quantitative, required to be collected before the Committee could begin its work. They thought that the collection, sifting and collation of such data could be made speedily only if the Government placed at the disposal of the Committee 15 Officers On Special Duty. The Government have been good enough to sanction ten posts but owing to certain administrative difficulties, arising mainly out of the present constitutional changes, it has not been possible to fill these posts, excepting one and that also only a few days back. Meanwhile, the health of the Chairman, the late Sir Shafaat Ahmed Khan, had deteriorated greatly and at his request, Sir Shanti Swarup Bhatnagar consented to act as the Chairman of the Committee.

Sir Shanti Swarup Bhatnagar has since been appointed Chairman in place of the late Sir Shafaat Ahmed Khan with effect from the 23rd July, 1947.

On the 7th July, 1947, the acting Chairman was requested by the Government to let them have by the 5th of August, at the latest, an 'Interim Report' based on available information, however, inadequate, recommending measures which should be given the highest priority and initiated within six months in order to meet, to some extent at least, the shortage of scientific and technical personnel - a shortage which is admitted on all hands.



In view of the urgency of the situation, Sir Shanti Swarup Bhatnagar agreed to undertake this work. A Sub-committee consisting mainly of the local members of the Main Committee was constituted at the instance of the Government. The purpose of the Sub-committee was to formulate certain interim recommendations, prompt action on which on the part of the Government could pave the way to meeting partially the scientific and technical manpower shortage. The Sub-committee consisted of:-

Sir S.S. Bhatnagar, F.R.S. (Chairman)

Rai Bahadur A.N. Khosla

Dr. J.N. Mukherjee

Dr. K.C.K.E. Raja,

Dr. J.N. Ray

Wing Comdr. H. Singh

Mr. D.N. Wadia

Dr. S.R. Sen Gupta (Secretary)

and had before it the following terms of reference:-

To advise the Government of India on measures which should be given the highest priority and initiated within the next six months in respect of

(a) the immediate improvement and expansion of facilities for scientific and technical training in Indian universities and in special institutions

and

(b) the promotion and development of scientific and technical research.

The Sub-committee held its first meeting on the 16th July, 1947, and came to the conclusion that the best method of tackling the task before it would be for each member of the Committee to prepare a note on the subject



or subjects with which he was concerned, suggesting what programme of training could be initiated within the next six months, taking due note of the existing facilities for education, training and research with a view to improving and developing them and using them to their fullest extent. Thereafter, the Sub-committee as a whole could consider the facts thus presented and formulate recommendations. The members accordingly prepared the following notes, which are given in Part II of the Report:-

- |                         |                                                                                                                                                                             |
|-------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Sir S.S. Bhatnagar      | - Training of personnel for scientific and industrial research and for industry.                                                                                            |
| Rai Bahadur A.N. Khosla | - Programme for provision of facilities for education, training and research for engineering personnel which can be initiated within the next six months.                   |
| Dr. J.N. Mukherjee      | - Measures which can be implemented in the next six months for speeding up education, training and research in agriculture and allied subjects.                             |
| Dr. K.C.K.E. Raja       | - Training of health personnel                                                                                                                                              |
| Dr. J.N. Ray            | - Requirements of technical and scientific personnel for industrial development and their training programme.                                                               |
| Wing Comdr. H. Singh    | - <del>Brilliant training personnel</del> <i>Research &amp; Develop</i><br><i>ment in collaboration</i> <del>development in collaboration with</del><br>Civil institutions. |
| Mr. D.N. Wadia          | - Programme for provision of facilities for education, training and research in Geology and Mining which can be initiated within the next six months.                       |
| Dr. S.R. Sen Gupta      | - Programme for the improvement and development of higher technical education.                                                                                              |

Those notes were considered by the Sub-committee on July 25, 26, 28 and August 3, 1947, and the Sub-committee's findings and recommendations are given in Chapter I. A brief summary of the Sub-committee's recommendations is given in Chapter II.

CHAPTER I.

Programme for the immediate improvement and expansion of facilities for scientific and technical education, research and training.

1. In order to maintain the closest possible relation between the terms of reference before us and our findings and recommendations, we have found it convenient to report under distinct main headings, viz. Education, Research and Industrial Training. It should, however, be mentioned that the subjects are so inter-linked and have such close bearing on each other that any hard and fast demarcation can neither be made nor is desirable. We also mention that owing to the limited amount of information available to us as well as our cognisance of the present scarcity of capital goods, building materials, etc. we have exercised considerable caution and restraint in formulating our recommendations.

SECTION I - EDUCATION.

2. Although we did not have up-to-date statistics concerning the annual output of scientific and technical personnel from institutions, we had before us a certain amount of information, which is necessarily slightly out-of-date. We reproduce below the figures concerning the whole of British India for the year 1940.

Students passing the various examinations.

|                                                                              |    |        |
|------------------------------------------------------------------------------|----|--------|
| Matriculation or its equivalent                                              | .. | 92,552 |
| Intermediate Arts                                                            | .. | 19,000 |
| Intermediate Science                                                         | .. | 5,453  |
| B.Sc. (Pass)                                                                 | .. | 2,199  |
| B.Sc. (Honours School)                                                       | .. | 359    |
| M.Sc.                                                                        | .. | 428    |
| Medical Degree                                                               | .. | 875    |
| Agricultural Degree                                                          | .. | 293    |
| Engineering (Civil, Mechanical, & Electrical), Mining and Metallurgy Degrees | .. | 638    |
| Doctorate (Arts, Science, Medicine) Degrees                                  | .. | 38     |



These figures reveal the inadequacy of the 1940 output. We have no reason to suppose that conditions have changed to any great extent.

BASIC SCIENTIFIC EDUCATION.

3. A substantial increase in the facilities for education in general science up to Intermediate Science and B.Sc. standards is clearly an immediate necessity so that the output from these courses may be adequate, in quantity as well as in quality, to feed the professional and post-graduate institutions, which it will be necessary to improve, expand and multiply to meet India's immediate and future needs for scientists, technologists, engineers and medical men.

Double Shift.

4. We have considered in this connection, as an interim measure, the possibility of running double shifts in Colleges. While the double shift system would certainly help us to tide over the present difficulty of providing additional teaching accommodation and perhaps additional equipment, we cannot whole-heartedly support its adoption. We are given to understand that during the war the double shift system was given a trial in some places but was not altogether a success. Teachers should have sufficient leisure not only to prepare lectures, correct home work and laboratory record books, etc. but also to keep themselves up-to-date by reading current literature and latest text books. Although educationally unsound, we, in view of the present emergency, recommend, only as an interim measure, the introduction of double shifts in such institutions where there is a certain amount of spare equipment, provided a completely new set of staff is engaged for lecture and laboratory work in the second shift. The Government should, wherever the introduction of the double



shift system is considered feasible, come to the aid of the institutions if necessary by

(a) bearing a share of the expenses on staff salaries and contingencies and

(b) assisting the institutions in the procurement of equipment and building materials. not much

5. We note with regret that progress has been made in the establishment of Technical High Schools. We strongly urge the Provincial Governments, etc. to convert without delay some of their existing ordinary High Schools to Technical High Schools, and to simultaneously proceed with the early establishment of new Technical High Schools. We attach considerable importance to the establishment of a large number of institutions of this type. For, the products of these institutions are likely to be better fitted to take to scientific and technical occupations. As the establishment of such schools will reduce the total schooling period as preparation for professional courses by one year, it will also lead to an increase in the available material for admission to the professional and scientific institutions.

#### Higher Scientific Education.

6. While we are pleased to note that the Central Universities, viz. Aligarh, Benares and Delhi, are being developed to provide wider facilities for higher scientific education, we feel at the same time that there is need for developing also the scientific departments of other universities, especially their post-graduate departments, so that an adequate number of scientific personnel with Honours and M.Sc. qualifications may be forthcoming for teaching posts, for service as specialists, for research and training in the National Laboratories and in industry; for example, each of the proposed higher technical institutions is likely to require over 600 teachers and

and the National Laboratories would require more than 600 men with specialised qualifications. There is also the need for a large number of scientists to provide the expanded facilities for education in universities and other institutions. We, therefore, recommend that the Central Government should come to the aid of all universities by giving them suitable financial and other assistance to expand their post-graduate departments.

Geological Education.

7. In particular, we strongly support the recommendations of the Geological Education Committee and urge the Government to give effect to these recommendations immediately, so that trained geologists adequate in number, say about 80 per year, for the teaching of geology and for the survey and development of the mineral resources of India may become available; for example, the Geological Survey of India alone will require within the next two or three years 150 geologists.

8. In regard to the training of geologists, there is one special aspect which cannot be passed over. The education of a working geologist is different from that of any other scientist. A systematic field training forms an essential part of a geologist's education. This kind of instruction could hardly be provided by universities and colleges. We understand that the Geological Survey of India will soon have adequate staff to help educational institutions by opening field training camps to supplement the education of our geology-graduates. We recommend that the Geological Survey should increase the number of their field training camps in order to train at least 50 geologists annually for field work. (For details see Mr. Wadia's Note)

Engineering and Technological Education.

In view of the uncertainty of the extent of development of Indian industries during the next few years



and as a consequence of the inadequacy of information available to us, we are unable to assess with reasonable exactitude the requirements for technical personnel during the next four or five years. In the absence of other data, the only way in which an approximate assessment can be made of our immediate requirements is to analyse the new capital flotation allowed by the Government and to infer from that India's requirements for technicians. The table below gives the position of new capital issues for some of the various industries since January, 1946. In the last column is shown the number of additional technical personnel that would be required for the successful running of these industries. The technical personnel have been divided into three categories:-

- 'A' = Experts  
'B' = Technicians with superior qualifications  
'C' = Lower grade technicians including mechanics.

| Industries.                                           | New Capital<br>issued allowed<br>(in 1946<br>(in lakhs) | Estimated requirements<br>(Number in Grades) |     |       |
|-------------------------------------------------------|---------------------------------------------------------|----------------------------------------------|-----|-------|
|                                                       |                                                         | 'A'                                          | 'B' | 'C'   |
|                                                       | Rs.                                                     |                                              |     |       |
| 1. Glass and Ceramics                                 | 213                                                     | 10                                           | 30  | 200   |
| 2. Chemicals & Drugs                                  | 570                                                     | 20                                           | 100 | 250   |
| 3. Soap and oil (excluding edible oils and Vanaspati) | 110                                                     | 8                                            | 10  | 100   |
| 4. Rayon and Art silk                                 | 402                                                     | 6                                            | 30  | 200   |
| 5. Paper, Board, etc.                                 | 281                                                     | 10                                           | 50  | 150   |
| 6. Plastics                                           | 50                                                      | 10                                           | 40  | 200   |
| 7. Leather                                            | 85                                                      | 5                                            | 13  | 35    |
| 8. Cement                                             | 463                                                     | 10                                           | 20  | 80    |
| 9. Woollen                                            | 137                                                     | 10                                           | 36  | 100   |
| 10. Rubber                                            | 117                                                     | 70                                           | 94  | 188   |
| 11. Engineering                                       | 1,242                                                   | 25                                           | 150 | 1,000 |
| 12. Electrical                                        | 910                                                     | 25                                           | 150 | 300   |
| 13. Non-Ferrous Metals                                | 98                                                      | 6                                            | 45  | 250   |
| 14. Machine tools                                     | 122                                                     | 100                                          | 400 | 1,000 |

10. It is worth noting that the new capital floated since 1946 is about Rs. 47 crores whereas the total capital invested in organised industry up to the year 1937 has been estimated to be about Rs. 80 crores. It is, therefore, clear that since 1946 the capital issue for industry has increased by about 60%. We are informed that since the last Budget

Session of the Central Legislature there has been a considerable falling off of application from industry to start new lines of manufacture and it is therefore, not possible to foresee what would be the requirements of industry for technical personnel unless the precise industrial policy of the Central Government is definitely known. There is, however, every reason to believe that the tempo of capital investment in industry is likely to be faster in the near future provided the Government adopt a benevolent policy to foster the growth of industry.

11. The present (1946) output of graduates in engineering and technology is estimated to be as follows:-

|                                              |              |
|----------------------------------------------|--------------|
| Aeronautical Engineering                     | 15           |
| Architecture and Building construction       | 20           |
| Civil and Municipal Engineering              | 467          |
| Chemical Engineering and Chemical Technology | 244          |
| Electrical Engineering                       | 285          |
| Mechanical Engineering                       | 258          |
| Metallurgy                                   | 27           |
| Mining                                       | 27           |
| Total:-                                      | <u>1,343</u> |

12. From a comparative study of the figures for the present output with those for the immediate requirements of industry alone, leaving aside the requirement of Governments for their contemplated large-scale public works - we have come to the conclusion that we have to plan for at least a four-fold increase in the output of all categories of personnel, if we are to meet our needs for the next four or five years.

13. We have dealt with the question of training of 'A' grade technicians, i.e. experts, in subsequent sections dealing with Research and Training. In the matters of education in engineering and technology, we, therefore, recommend a short-term and a long-term programme, both of



which require to be initiated within six months.

Short-term programme.

14. Under the short-term programme, we recommend the adoption of the following five measures:-

- I. Introduction of an intensive twelve month training programme in co-operation with industry.
- II. Introduction of three-year degree course in Engineering.
- III. Introduction of double-shift system in engineering colleges.
- IV. Use of science departments of university colleges for the instruction of engineering students in science subjects.
- V. Employment of experts to assist in teaching.
- VI. Improvement of salaries of teachers.

15. (I) We recommend the introduction of an intensive 12-month training programme for M.Sc.'s and graduates in chemical technology to be run on co-operative basis, between different universities and relevant industries. We feel that some of the existing institutions, if assisted with suitable grants, capital and recurring, should be able to impart short-term courses to the technological graduates, who can then be placed in appropriate factories for practical training for a further period of six months. For example, an ordinary M.Sc. graduate in applied chemistry can be trained in educational institutions in such subjects as oils, and fats, paints and varnishes etc. for a short period, say six months, to supplement his basic scientific training. This training programme can be shared by two or three institutions depending on the subject and the specialisation required; this academic training to be followed by practical training in a suitable factory for

a period of six months or so. We consider that the following institutions are capable of organising such courses and recommend the grants noted against each.

|                                                                     | Capital grant<br>(in Rs. lakhs) | Recurring grant<br>(in Rs. lakhs) |
|---------------------------------------------------------------------|---------------------------------|-----------------------------------|
| (1) Harcourt Butler Technological Institute, Cawnpore               | 5                               | 1                                 |
| (2) College of Technology, Hindu University, Benares                | 5                               | 2                                 |
| (3) Department of Applied Chemistry, Calcutta University            | 7                               | 2                                 |
| (4) Laxminarayan Technological Institute, Nagpur                    | 3                               | 0.8                               |
| (5) University College, Andhra University                           | 3                               | 0.5                               |
| (6) Indian Institute of Science, Bangalore                          | -                               | 2                                 |
| (7) Bengal Tanning Institute, Calcutta                              | 1                               | 0.5                               |
| (8) Institute of Leather Technology, Madras                         | 1                               | 0.5                               |
| (9) Engineering College, Guindy, Madras                             | 2                               | 0.75                              |
| (10) Department of Engineering and Technology, Annamalai University | 1                               | 0.5                               |
| (11) Department of Chemical Technology, Bombay University           | 1                               | 0.5                               |
| (12) Forest Research Institute, Dehra Dun                           | 2                               | 0.75                              |
| (13) College of Engineering and Technology, Jadavpur                | 2                               | 1                                 |
| (14) Victoria Jubilee Technical Institute, Bombay                   | 1                               | 0.5                               |
| Total                                                               | 34                              | 12.38                             |

This recommendation on being given effect to will help to a great extent in making good the present shortage of chemical technologists of grade B.



16. (II) At present, the courses in engineering extend over a period varying from three to four years. We have every reason to presume that with judicious selection for admission to engineering colleges, it should be possible to reduce the period of training to three years. We understand that the All-India Council for Technical Education have prepared a draft curriculum and <sup>syllabuses</sup> of studies which it should be possible to cover in three academic sessions of 1400 hours each as against the commonly prevailing four academic sessions of less than 1000 hours each. We, therefore, recommend that the universities should consider the introduction of three-year-degree courses in engineering. This would shorten the training period, and also largely help in the increase of the number of engineers.

17. (III) We have also considered the feasibility of introduction of double shifts in some of the colleges. We are given to understand that it was run with some success in the Thomason Engineering College, Roorkee during the war years. Elsewhere, in paragraph 4, we have stated the reasons for our reluctance to recommend the general introduction of double shift system. With the provisos stipulated therein we recommend that the universities may consider the introduction of double shift system, if conditions permit.

18. (IV) Wherever possible use should be made of the teaching facilities of the science departments of suitable colleges to assist in the education in basic sciences for engineering students.

19. (V) As an interim measure we recommend that engineers in Government service should be encouraged, where necessary, to assist in the instruction in engineering colleges. This would relieve the strain on college professors and will save them some of their time for training additional students, who too will derive more benefit

from the latest ideas and knowledge and appreciation of the latest developments in the various engineering activities.

20. (VI) We understand that there is an acute shortage of teachers in most of the engineering colleges and this is mainly due to the inadequate salaries offered for teaching posts. We are definitely of the opinion that the pay and prospects of a teacher should correspond to those that would be open to him had he joined a technical department under the Government.

Long-term programme.

21. As long-term measures which have to be initiated right now if they are to bear fruit within the next four or five years, we recommend the following:-

- I. Establishment of Regional Committees of the All-India Council for Technical Education.
- II. Improvement and expansion of the existing colleges of engineering and technology.
- III. Expansion of the Delhi Polytechnic, especially its departments of Architecture and Engineering.
- IV. Equipping of all institutions of engineering and technology, adequately.
- V. Arranging for the early operation of the Power Engineering Department of the Indian Institute of Science.
- VI. Expediting the establishment of the Regional (Eastern & Western) Higher Technical Institutions.
- VII. Expansion of the Indian School of Mines, Dhanbad.

22. (I) We understand that in order to enable the All-India Council for Technical Education to tender judicious advice to the Government for the provision of facilities for technical education in every part of the country, adequate in relation to the possible industrial development of each region, the Council have decided to establish regional committees and that the formation of these



committees has been delayed owing to the present constitutional changes. We strongly recommend that for ensuring co-ordinated development of technical education and generally to raise its standard, it is essential to establish the regional committees immediately.

23. (II) For the improvement of the standard of education as well as the expansion of some of the institutions of engineering and technology, so that the present facilities may be utilised to the fullest extent, the Government of India should immediately make grants to such institutions as are recommended by the All-India Council for Technical Education. We understand that the All-India Council for Technical Education will shortly submit specific recommendations for the improvement and expansion of the following institutions on the basis of reports of Expert Committees set up by them for this purpose.

- (i) College of Engineering and Technology, Jadavpur.
- (ii) Department of Applied Chemistry, University College of Science and Technology, Calcutta.
- (iii) Department of Applied Physics, University College of Science and Technology, Calcutta.
- (iv) Engineering College, Benares Hindu University.
- (v) College of Mining and Metallurgy, Benares Hindu University.
- (vi) College of Technology, Benares Hindu University.
- (vii) Engineering College, Dayalbagh.
- (viii) Engineering College, Muslim University, Aligarh.
- (ix) N.E.D. Engineering College, Karachi.
- (x) Victoria Jubilee Technical Institute, Bombay.
- (xi) Department of Chemical Technology, Forman Christian College, Lahore.
- (xii) Department of Chemical Technology, Bombay University.
- (xiii) Laxmi Narayan Institute of Technology, Nagpur University.

University

(xiv) Department of Technology, Andhra University.

(xv) Department of Chemical Technology, Madras University.

(xvi) Engineering College, Annamalai University.

With suitable financial assistance the output from these institutions can be increased by more than 50% within the next three or four years. The total capital grant required for the purpose would be in the neighbourhood of about rupees two crores spread over five years and the recurring grant about rupees 31 lakhs. We strongly recommend that adequate funds should be made available and steps initiated by October, 1947, for the improvement of these institutions. This measure would raise the standard of education in these institutions and in most cases also increase their training capacity and thereby lead to a gradual increase in the annual output of graduates.

24. (iii) We understand that some building construction is contemplated for the Delhi Polytechnic to enable it to increase the annual intake to the Architecture Classes. The matter requires immediate attention as there are less than 300 qualified architects in the whole of India and facilities for architectural education are almost non-existent in the country. With the expenditure of about a lakh of rupees, the Government would be providing facilities for the education of 30 or more architects every year.

25. We should have been happier if the progress of the Delhi Polytechnic had been more satisfactory. We understand that the lack of progress has been mainly due to the utterly inadequate salaries which are being offered to the teaching posts in the Delhi Polytechnic. We consider it essential that the Government should forth-



with improve the prevailing scales of pay for teachers in the Delhi Polytechnic and also take steps to shift the institution from its present premises to a more commodious site. The Government should also consider the desirability of setting up a small technical committee to advise the Governing Body on technical matters and also affiliate certain departments of the Polytechnic to the Delhi University.

26. (IV) At present most of the educational institutions are suffering from lack of equipment. We consider the matter worthy of special attention, and have dealt with it in a later section. Here, we would urge the Government to remove immediately all restrictions on the import of scientific and technological equipment and also introduce measures affording relief from import duty by allowing rebate on such imports to educational institutions.

27. (V) We note that the Indian Institute of Science is being developed further and that a High Voltage Laboratory and a Power Engineering Department for the post-graduate training in power engineering are being established. We would urge the Indian Institute of Science authorities to expedite the operation of the Power Engineering Department so that a number of engineers adequately qualified to tackle power development especially hydro-electric, may be available in the very near future.

28. (VI) We note that on the recommendation of the Sarkar Committee the Government have decided to establish within the quinquennium commencing from 1946-47 two regional institutions, namely, the Eastern and the Western Institutions, each with a capacity for the training of about 2000 under-graduates and 1000 post-graduate and research students. Each of these institutions is to have wide facilities for post-graduate study and research. For

example, the Eastern Institutions is expected to provide facilities for post-graduate study and research in the following subjects:-

Fuel Technology  
Pharmaceutics and Fine Chemicals.  
Regional Planning.  
Paper Technology.  
Glass and Ceramics.  
Plastics.  
Paints and Pigments.  
Hydraulic and River Research.  
Transportation (including Railway Engineering)  
Structural Engineering (including High Dams)  
Design of Electrical Machinery.  
Refrigeration and Air conditioning.  
Automobile Engineering.  
Machine-Tools.  
Design of Machinery and Instruments.  
Light Alloys.  
Industrial Physics.  
Electronics (including Radio Engineering)  
Economic Botany.  
Geophysics, Geology, Mineralogy.  
Meteorology.  
Food Technology.

29. We strongly recommend that within the next six months the Government should complete the purchase of the sites and appoint the planning staff and, if possible, arrange to hire temporary buildings to start the institutions. We attach the greatest importance to the early establishment of these institutions, for the sooner they are established the sooner will India be free from the necessity of sending overseas a large number of scholars for advanced training in different branches of technology. We are also of the opinion that in order to expedite construction of buildings for these institutions, it would be desirable to authorise the department concerned to use private agencies instead of the Central Public Works Department.

30. (VII) We understand that a Reorganisation Committee has recommended comprehensive measures for the improvement and expansion (doubling its present output of mining engineers and applied geologists) - of the Indian School of Mines, Dhanbad. We urge that these recommendations be acted upon without delay.



Education and Training of  
'C' Grade Technicians.

31. We cannot close this sub-section without making some reference to the matter of education and training of the 'C' grade technicians including mechanics. We understand that the Labour Department of the Govt. of India have under consideration a comprehensive scheme for the training and apprenticeship of craftsmen for industry. We are of the opinion that the implementation of this scheme should not be delayed any longer and that it should be initiated, wherever possible, within the next six months.

32. For this purpose and for the training of foremen and overseer type of personnel, the Government should take over some of the private engineering schools and develop them. We are not able to make any estimate of the financial implications of such a step, but we are convinced that the step recommended by us is the only possible way under the present conditions for quickly developing engineering schools for the training of overseer type of personnel and also for increasing the out-turn of the number of craftsmen. Later on, in Section III dealing with "Industrial Training" we have made further suggestions.

33. Before we close this sub-section, we should also like to refer to the special needs of Footwear and Leather Industries. The available training facilities for both the superior as well as the craftsmen type of personnel are inadequate. The development and promotion of scientific and technical research in leather industries would be stimulated by introducing leather chemistry as one of the subjects for the M.Sc. Industrial Chemistry and encouraging the students qualified in leather technology to do research in leather chemistry for the doctorate degrees. We also consider that

the existing training institutions should be made more efficient and useful by adding to their equipment, and by enabling them to employ better paid staff.

Practical Training of Engineers.

34. One aspect of engineering education deserves special attention viz. facilities for their post-collegiate practical training. We have later, under the section 'Industrial Training' also dealt with certain aspects of this question. Past experience has shown the necessity of some positive steps to ensure that fresh graduates receive an adequate amount of such training. Employers, including Indian mines, metallurgical works, oil companies as well as Government departments should appreciate that engineering colleges cannot provide them with finished products for ready employment in responsible posts and that it would be to their interest to take in fresh graduates and train them properly. Unless employers are willing to face this responsibility and readily undertake to provide facilities for the practical training of fresh graduates, it may be necessary to introduce legislation making it obligatory on the part of organised industry to do so.

Education of Agricultural personnel.

35. It is understood that on the whole the standard of teaching in agricultural colleges in the country is rather indifferent. Certain suggestions, which have been put forward in Dr. Mukherjee's note (Part II, Chapter III) for the improvement of the standard of education deserve serious consideration. It is essential to ensure co-ordinated development of agricultural education, for which purpose the Government should consider the desirability of establishing an Advisory Council for Agricultural Education on an All-India basis. This is specially necessary in view of the large number of agricultural personnel that would be required.



For example, according to the findings of the Agricultural Education Committee of the Central Advisory Board of Education, the Agriculture Departments alone would require during the next 10 or 15 years:-

300 Gazetted Officers.  
15,000 Graduate Assistants  
30,000 Non-gazetted field assistants for agricultural work.  
and 550 Gazetted Officers  
4,000 Non-gazetted Inspectors  
and 20,000 Stock-men for animal-husbandry work

36. Considering the output figures for the year 1940, i.e. about 293 graduates and 290 licentiates, it is apparent that steps must be initiated without delay to implement all schemes for large scale expansion of facilities for agricultural education. Here again we have to recommend only as an interim measure the introduction of a double shift system subject to the provisos stipulated in paragraph 4 above. In our final report, we hope to be able to make specific proposals on this point in respect of some of the existing institutions.

37. Since agricultural colleges like other professional colleges receive their intake from the general science colleges, it may be pertinent to observe that in so far as agricultural education is concerned, entry qualifications of candidates require improvement in certain ways, some of which have been referred to in Dr. Mukherjee's note.

38. In view of the urgent need for gazetted staff of the Departments of the Central, Provincial and State Governments, we also urge that the training programme of the Central Institutions be speeded up in all possible ways. We would specially recommend that necessary measures be taken to increase the output from the Indian Agricultural Research Institute, the Indian Veterinary Research Institute, the Indian Dairy Research Institute etc.

39. We note that the Central Agricultural College has just started functioning and will be producing about 40 graduates in three years time and later on 60 every year. We recommend that the institutions be advised to increase the scope of the training programme so as to be able to train double the present number. The various central plans for agricultural education have been outlined in the annexure to Dr. Mukherjee's note.

For purposes of education, research and their applications, it is desirable to promote ecological studies which have been neglected in the past. Soil surveys on a coordinated all-India basis and establishment of a large number of experimental stations in each region distinguished by climatic and soil conditions is an immediate necessity.

A greater degree of diversification and also flexibility is necessary in the curricula of studies of universities in order that facilities for training and research in a larger number of scientific subjects, especially in agriculture, can be provided for. The American unit system is a model which may be adopted with suitable modifications. For example, many chemists should the option of training in bacteriology or in plant physiology. Similarly, Plant Physiologists should be able to take supplementary courses in chemistry. Besides, in view of the importance of agriculture, more universities should be encouraged to open faculties of agriculture. Where the resources of any one university may not be sufficient, two or more of them may combine to establish agricultural colleges if geographical and other considerations make it feasible. The resources of universities and colleges for training in the primary sciences may be utilised to a greater extent for developing technical and agricultural education.



EDUCATION FOR HEALTH PERSONNEL.

40. From Dr. Raja's note (Part II, Chapter IV) it will be seen that 20 medical colleges (new and converted medical schools together) are being established for undergraduate medical education. While the number of existing colleges is thus being doubled the total output of medical graduates in the country as a whole after five years is likely to be about 1800, an increase of only 80%.

41. If India is to be provided with reasonable medical facilities it is clearly necessary to initiate immediately, measures for stepping up the output of doctors. As a short term measure, we have examined the possibility of introduction of double shift system in medical colleges. We understand that the Calcutta Medical College authorities are prepared to try out the system and it is expected to cost 1.30 lakhs recurring and 0.10 lakhs capital expenditure. Subject to the provisos set out in paragraph 4 above we recommend its introduction in the Calcutta Medical College to begin with. The possibility of introducing this system in the G.S. Medical College, Bombay, where the authorities seem hopeful of doing so if adequate help could be given, should also be investigated.

42. As a long-term measure to be initiated right now, we support the recommendations of the Bhoré committee in the matter of improvement and expansion of the existing colleges. This would lead not only to an improvement of the standard of education but also to an increase in the output by about 53 per cent over the present level in the country as a whole. We recommend that the Central Government should make available to Provincial Governments a substantial proportion of the capital and recurring grants required.

|                       | <u>Existing Colleges in</u> |                   |
|-----------------------|-----------------------------|-------------------|
|                       | <u>India</u>                | <u>Pakistan.</u>  |
|                       | (in lakhs of Rs.)           | (in lakhs of Rs.) |
| Capital expenditure   | 432.0                       | 54.0              |
| Recurring expenditure | 115.5                       | 16.5              |

43. We also recommend that Departments of Preventive Medicine and Public Health should be opened in the Madras Medical Colleges, the Grant Medical College, Bombay, and the Calcutta Medical College. The total expenditure is likely to be -

Capital .. 6 lakhs  
Recurring.. 6.75 lakhs.

44. The development of existing postgraduate training facilities in special branches of medicine in a manner designed to serve the needs of the whole of India, is an urgent need and we recommend the immediate formation of a small committee of experts to inspect centres and report on steps that should be taken to encourage post-graduate and research studies. Fifty scholarships of Rs. 100 per month should be provided each year with immediate effect to encourage such studies. The recurring cost involved is likely to be 0.825 lakhs.

45. We have considered certain proposals for further utilising the present facilities of the All-India Institute of Hygiene and Public Health. The details of this scheme will be found in Dr. Raja's note. Briefly, it involves maximum utilisation of the present facilities, the setting up of a Department of Food Technology and the training of certain types of public health personnel. The expenditure involved is, capital Rs. 2.80 lakhs and recurring Rs. 2.66 lakhs.

46. Facilities for dental education are utterly inadequate at present and we recommend a capital grant of recurring grant of Rs. 1.49 lakhs in each case for the Rs. 1.69 lakhs and a improvement and expansion of the Calcutta Dental College and of the Nair Dental College, Bombay.

47. The training of nurses should receive the highest priority. The Nursing College in New Delhi is the only one of its kind in India and is intended to train public health nurses, a type so far unknown in this country, as well as to provide administrators and teachers in the field



of nursing. Future expansion of training in this subject and the development of provincial nursing services will be greatly assisted by increasing the intake of the Nursing College. The details of the recommendations put forward in this connection will be found in Dr. Raja's note. We strongly recommend that the additional staff, equipment and accommodation which are required should be made available without delay. A capital grant of Rs. 1 lakh and a recurring grant of Rs. 1.5 lakhs will be required over and above the present expenditure.

48. The need for increasing the rate of production of health visitors is equally great. The proposal for expanding training facilities at the Lady Reading Health School in Dr. Raja's note has our full support. The proposed annual expenditure of Rs. 71,000 should, we recommend, be sanctioned and the additional accommodation and staff required should be provided.

49. We also warmly commend the training schemes for certain types of non-medical personnel such as health inspectors, health visitors, mid-wives and vaccinators which have been put forward by provincial authorities and suggest that expenditure to the extent of Rs. 11,000 (non-recurring) and of Rs. 2.05 lakhs (recurring) should be sanctioned for a period of three years, at the end of which the position should be reviewed.

50. We also recommend the institution of twelve scholarships for training in medical social work at the Tata Institute of Social Sciences at an annual recurring cost of 0.60 lakhs.

51. A start should also be made during the next six months, with the establishment of a college of pharmacy in Calcutta at an estimated cost of

|           |                 |
|-----------|-----------------|
| Recurring | Rs. 132.8 lakhs |
| Capital   | Rs. 446.3 lakhs |

Training of Personnel for Scientific and Industrial Research.

52. The highest type of scientific and technical personnel required falls into two distinct categories: (a) research workers of the highest type and (b) technical workers with a basic knowledge of the sciences and technology along with experience of industry. The former category of personnel is drawn from university post-graduates, who have shown a definite flair or disposition for research. The second category of men, who are responsible for the manning of industries is built of graduates and diploma holders in technological subjects and the question of "conditioning" them for employment will be dealt with in the next Section.

53. The inadequacy of facilities for research, higher study and training in our universities and research institutions has been chiefly responsible for the present rather unsatisfactory state of development of both research and industry. To aggravate matters, many of our universities have not yet established well-equipped (both by way of staff and equipment) post-graduate research departments in the several fundamental and applied sciences. The only way in which we may improve the situation immediately and give impetus to an increase in the outturn of trained scientific workers is to tap the existing universities and research institutions by enabling them to expand their training facilities. We are also of the opinion that the rigidity of the system of training prevalent in certain universities and institutions should be removed and the system made more flexible and diversified so that a wider sphere of activity might be covered. For instance, universities which are well-equipped for research in organic chemistry should expand their activity to include bio-chemistry, fermentation chemistry and other allied



subjects, and those having a well equipped research school in physics should also take up geophysics. Similarly, technical institutions which impart graduate and post-graduate training in mechanical and electrical engineering should be able to take up, for example, communication engineering, chemical engineering, and other allied branches also.

54. A good proportion of the available scientific man-power in the country has not been made use of in a fruitful way in as much as owing to the existing conditions of recruitment to services and other factors many qualified men have not had suitable opportunities of contributing all they could in the sphere of scientific and industrial activity. The prevention of this kind of wastage or drift of scientific talent should engage our immediate attention. As a quick and effective way of assessing the availability of such wasted talent and usefully employing it, we recommend that the necessary information about all trained men who are not profitably engaged at present be collected through advertisement and an attempt made to fit them into their proper places. This measure will help to a better utilisation of the existing resources and will also inspire confidence in the men undergoing training that the State will look after their interests.

55. We consider that the existing centres of research are capable of being better utilised than at present for the training of personnel for scientific and industrial research. Such training should be of two general types, viz. (a) higher research and to some extent advanced technological training in special institutions; and (b) post-graduate education with research also leading to a post-graduate degree in Indian universities.

To take the former into consideration first, there are 30 special institutions, as mentioned in appendix 'A' of Sir S.S. Bhatnagar's note (Part II, Chapter I) catering for



a wide range of subjects both in the fundamental and applied sciences. We find that a large number of these are fairly well-equipped and well-established research centres; and some like the Government Test House, Geological Survey of India, Ordnance Laboratories, etc., are scientific departments of the Government. Although these latter institutions carry out mostly routine scientific work, as distinct from research they could become no less important as training centres. For scientific workers trained in these places would be useful not only for certain types of research in specialised fields but also if needed in the manning of the departments concerned.

56. Almost all the special institutions mentioned in the appendix 'A' referred to above have training facilities which may be stretched to train more men than at present. Since the inadequacy of research scholarships has been mainly responsible for the limited use of this facility, the best way of attaining the objective in view is to provide research scholarships on a generous scale.

57. According to appendix 'A' mentioned above, altogether about 300 additional workers may be trained in these special institutions. Eighty of these could be placed for training in non-government organisations and the rest in the scientific departments of the government.

As an urgent measure we recommend that eighty research scholarships, each of the value of Rs. 100 per month, be instituted in the following non-government research institutions:

| <u>Institution.</u>                                              | <u>Number of scholarships.</u> |
|------------------------------------------------------------------|--------------------------------|
| (1) Indian Institute of Science, Bangalore                       | 28                             |
| (2) Bose Research Institute, Calcutta                            | 11                             |
| (3) Tata Institute of Fundamental Research, Bombay               | 4                              |
| (4) Nutrition Research Institute, Coonoor                        | 8                              |
| (5) Cotton Technological Laboratory, Bombay                      | 5                              |
| (6) Indian Association for the Cultivation of Sciences, Calcutta | 8                              |

|                                                              |                     |
|--------------------------------------------------------------|---------------------|
| (7) Lac Research Institute, Ranchi                           | 5                   |
| (8) Jute Research Institute, Calcutta                        | 5                   |
| (9) Laboratory of the Indian Academy of Sciences, Bangalore  | 3 (for the present) |
| (10) Palaeo Botanical Research Institute, Lucknow University | 3                   |

The subject-wise distribution of scholarships proposed above may be decided in consultation with the institute concerned.

58. In addition to the institution of scholarships, we would also recommend that institutes 1, 2, 3, 6 and 9 be each given a capital grant of Rs. 2 lakhs for the immediate purchase of much needed equipment, books, journals etc., and Institutes 4, 5, 7 and 8 each a capital grant of Rs. 50,000 for the same purpose. We would also recommend that the above institutes be each given a recurring grant of Rs. 25,000 for their expanded activities.

59. We have already referred to the 20 scientific departments of the Government, which are in a position to provide training facilities for 200 additional workers. Generally due to various administrative reasons these departments are not at present admitting trainees, and have thereby shut off very useful training centres. We feel that the present situation calls for an early examination of the question so that facilities available in these places may be fully utilised to bring about a quick increase in the supply of trained scientific workers. We feel that the various departments should be able to train additional men as indicated below:

| <u>Department.</u>                               | <u>No. of additional men.</u> |
|--------------------------------------------------|-------------------------------|
| Forest Research Institute, Dehradun              | 12                            |
| Haffkine Institute, Bombay                       | 10                            |
| Biochemical Standardisation Laboratory, Calcutta | 5                             |
| Geological Survey of India                       | 12                            |
| Ordnance Laboratories                            | 20                            |



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Department.

|                                                                                        | No. of additional men. |
|----------------------------------------------------------------------------------------|------------------------|
| Directorate General of Observatories                                                   | 25                     |
| All-India Radio                                                                        | 10                     |
| Government Test House, Alipore, Calcutta                                               | 15                     |
| Metallurgical Inspectorate                                                             | 5                      |
| Inspectorate of Military Explosives                                                    | 4                      |
| Survey of India                                                                        | 10                     |
| Mathematical Instruments Office, Calcutta                                              | 5                      |
| Civil Aviation Directorate                                                             | 10                     |
| Posts & Telegraphs Department Workshops and Laboratories                               | 20                     |
| Zoological Survey of India                                                             | 5                      |
| Botanical Survey of India                                                              | 6                      |
| Central Waterways Irrigation & Navigation Commission & Waterways Experimental Stations | 12                     |
| Central Public Works Department                                                        | 15                     |
| Imperial Dairy Institute                                                               | 8                      |
| Provincial Industrial Research Laboratories                                            | 5                      |

We recommend that all the above institutions be asked to submit detailed proposals in respect of scientific training, preferably on the same lines proposed for non-government organisations, and the Government give immediate effect to such proposals.

60. We have examined with interest a scheme of Railway Scientific Research described on pp. 6 of Sir S.S. Bhatnagar's Note (Part II, Chapter I) and commend it to the Government. Our railways and their workshops and laboratories constitute ideal training centres for scientific and technical workers in all problems relating to railway and we should not fail to utilise these facilities. There are at present six laboratories and 10 workshops attached to the State Railways where facilities for research in chemical, metallurgical and other allied fields exist. The scheme put forth proposes to mobilise these facilities for the organisation of an efficient Railway Scientific Research Section, where about 200 research workers

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may be trained. We recommend that the scheme be approved, a recurring grant of Rs. 3.42 lacs made and a Director of Railway Scientific Research be appointed to work out the details of the scheme.

61. We have also noted that the existing laboratories of the Council of Scientific and Industrial Research can provide for the training of about 20 additional research workers in various branches of Chemistry, Physics, Glass and Ceramics and Fuel, and recommend that the Council be asked to organise immediately such training. We further recommend that the Council be given such grants as are necessary for the purpose. It is likely that this training programme would entail a recurring grant of Rs. 35,000 for 20 research scholarships each of Rs. 100 p.m. and Rs. 10,000 towards miscellaneous or contingent expenses.

62. Next to special institutions, the universities and other educational institutions constitute the most important centres for the training of personnel in scientific and industrial research. In appendix B of Sir S.S. Bhatnagar's note is given a comprehensive statement of the facilities available in various Indian Universities, and the urgent measures which should be given effect to, in order to increase the outturn of research workers and also the probable number of additional men each University will be in a position to admit in the immediate future. From these data we find that only the universities of Calcutta, Bombay, Andhra, Benares, Lucknow, Allahabad, Aligarh, Dacca and Punjab have fairly well-equipped post-graduate research departments and the universities of Madras, Nagpur, Delhi, Patna, Annamalai and Agra are not so good in this respect. The Sind University has just been established and it will be some time before this university could come into its own. From the information presented, it is obvious that our approach to the problem of research training in universities should be two-fold viz. an immediate all-round strengthening of the existing post-graduate departments in all Indian Universities both by way of equipment and research scholarships and the



creation of post-graduate research departments for certain important subjects in such of the universities as do not have them at present. We would, therefore, recommend to the Government that: (a) the post-graduate research departments of the following universities be given the grant noted against them:

| University.   | G r a n t s. |                                                                                     |
|---------------|--------------|-------------------------------------------------------------------------------------|
|               | Capital.     | Recurring.                                                                          |
| (1) Calcutta  | Rs. 2 lakhs  | 25 scholarships each of the value of Rs. 100 p.m. and Rs. 50,000 as contingencies.  |
| (2) Bombay    | Rs. 2 lakhs  | 15 scholarships of the value of Rs. 100 p.m. and Rs. 50,000 as contingencies.       |
| (3) Andhra    | Rs. 2 lakhs  | 10 scholarships each of the value of Rs. 100 p.m. and Rs. 30,000 as contingencies.  |
| (4) Benares   | Rs. 2 lakhs  | 20 scholarships each of the value of Rs. 100 p.m. and Rs. 40,000 as contingencies.  |
| (5) Lucknow   | Rs. 2 lakhs  | 6 scholarships each of the value of Rs. 100 p.m. and Rs. 20,000 for contingencies.  |
| (6) Allahabad | Rs. 2 lakhs  | 6 scholarships each of the value of Rs. 100 p.m. and Rs. 20,000 for contingencies.  |
| (7) Aligarh   | Rs. 2 lakhs  | 10 scholarships each of the value of Rs. 100 p.m. and Rs. 40,000 for contingencies. |
| (8) Punjab    | Rs. 2 lakhs  | 10 scholarships each of the value of Rs. 100 p.m. and Rs. 30,000 for contingencies. |
| (9) Dacca     | Rs. 2 lakhs  | 8 scholarships each of the value of Rs. 100 p.m. and Rs. 20,000 for contingencies.  |

and (b) the following universities be given the grants noted against them for expanding their post-graduate departments and also to start new post-graduate research departments in the subjects in which they can do so immediately, (the grants recommended include expenditure for the creation of professorships, readerships and other tutorial staff).

| University.   | G r a n t s. |                                                                                                  |
|---------------|--------------|--------------------------------------------------------------------------------------------------|
|               | Capital      | Recurring.                                                                                       |
| (1) Madras    | Rs. 5 lakhs  | 8 scholarships each of Rs. 100 p.m. and Rs. 1.75 lakhs towards teaching staff and contingencies. |
| (2) Nagpur    | Rs. 5 lakhs  | 5 scholarships each of Rs. 100 p.m. and Rs. 1.05 lakhs towards teaching staff and contingencies. |
| (3) Delhi     | Rs. 5 lakhs  | 4 scholarships each of Rs. 100 p.m. and Rs. 1.05 lakhs towards teaching staff and contingencies. |
| (4) Agra      | Rs. 5 lakhs  | 2 scholarships each of Rs. 100 p.m. and Rs. 1.05 lakhs towards teaching staff and contingencies. |
| (5) Patna     | Rs. 5 lakhs  | 5 scholarships each of Rs. 100 p.m. and Rs. 1.05 lakhs towards teaching staff and contingencies. |
| (6) Annamalai | Rs. 5 lakhs  | 4 scholarships each of Rs. 100 p.m. and Rs. 1.05 lakhs towards teaching staff and contingencies. |

(c) In addition to the above we would also recommend that the following educational institutions not attached to any university also be given the grants noted against them for the general expansion of research facilities:

| Institutions.                | Grants - Recurring                                                       |
|------------------------------|--------------------------------------------------------------------------|
| (1) Bengal Tanning Institute | .. 5 scholarships each of Rs. 100 p.m. and Rs. 15,000 for contingencies. |



Institutions.

Grants - Recurring.

|                                                      |                                                                       |
|------------------------------------------------------|-----------------------------------------------------------------------|
| (2) Leather Trades Institute, Madras                 | 5 scholarships each of Rs. 100 p.m. and Rs. 12,000 for contingencies. |
| (3) Harcourt Butler Technological Institute          | 4 scholarships each of Rs. 100 p.m. and Rs. 12,000 for contingencies. |
| (4) Kerala Soap Institute Calicut                    | 3 scholarships each of Rs. 100 p.m. and Rs. 12,000 for contingencies. |
| (5) Imperial Institute of Sugar Technology, Cawnpore | 4 scholarships each of Rs. 100 p.m. and Rs. 12,000 for contingencies. |
| (6) Indian School of Mines, Dhanbad.                 | 5 scholarships each of Rs. 100 p.m. and Rs. 12,000 for contingencies. |

The total grant, which we have recommended above for the expansion of research facilities in special institutions and universities will be:

|           |                     |
|-----------|---------------------|
| Capital   | ... Rs. 60 lakhs    |
| Recurring | ... Rs. 19.77 lakhs |

Special Measures to be initiated within the next six months.

63. The question of providing expanded facilities for the training of personnel in scientific and industrial research is closely linked up with the general question of organisation and development of scientific research in the country. The recommendations which we have made in the preceding sections are merely in the nature of interim measures for bringing about an immediate increase in the out-turn of scientific manpower in the country, and do not fulfil all our requirements in respect of development of scientific research. Long term measures will, therefore, have to be formulated. Since these are equally urgent and important, we have examined the general question in the light of recommendations, made at various times, especially the recommendations of the Industrial Research Planning Committee. Of the various recommendations of the Research Planning Committee the following are of far-reaching importance not merely for research development but also in the present context

of research training: (i) Levy of a statutory cess (1/16 of 1%) on industry on the basis of industrial production or as a small surcharge on income-tax so as to realise at least Rs. 1 crore for supplementing the grant from the Govt. for research; (ii) Block grant of Rs. 6 crores from the Government (spread over a period of 5 years) for the establishment of various National Laboratories and for providing funds to universities and special institutions for research in all the sciences and technologies; (iii) Annual recurring grant of Rs. 1 crore from the Government for ensuring the continuity of research activities on a progressive scale.

We are of the opinion that in as much as the above recommendations relate not only to the organisation and development of scientific research in the country but also to the outturn of scientific manpower, they should be given effect to immediately. The principle of levying cess on industry has been accepted by the Government in the late Planning and Development Department but has not yet been translated into action. We, therefore, strongly urge that immediate action on the recommendations of the Industrial Research Planning Committee, especially in regard to the levy of cess on industry for research purposes be initiated.



69 those in the fields of iron and steel metallurgy, engineering, heavy chemicals, pharmaceuticals and drugs, soaps, oils and fats, paints and varnishes, cement, ~~sugar~~ and alcohol, mineral oils and mining have good facilities for both advanced and foremanship training of technical personnel. But a majority of these firms are at present rather lukewarm in the matter of admitting trainees in numbers larger than required for their own purpose. This situation has contributed in no small measure to a denial of opportunities to suitably qualified students, seeking necessary training in industry. We sincerely hope that industry will come to appreciate that it would be in their own interest to take a more enlightened view in the matter. As we have stated earlier in this Chapter, it may perhaps become necessary for the Government to introduce suitable legislative measures so that it becomes incumbent on every established industrial concern to provide facilities for technical training to qualified young men in all the grades notwithstanding whether the personnel thus trained would be required by the concern or not. We also recommend that in every contract entered into by the Government for the purchase of industrial machinery, plant and equipment from foreign and Indian firms there should be provision in the terms of purchase for the training of a suitable number of Indians in the workshops of the firms.

65. Training in industrial concerns may be brought under two general categories: (i) advanced practical training of graduates and to some extent research; (ii) semi-advanced or foremanship training. At present we

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have not been able to obtain correct information regarding the various industrial concerns in the country which are willing to admit additional men for training in the immediate future and the number of men who could be thus admitted into the various categories of training. In appendix 'C' of Sir S.S. Bhatnagar's note, however, is presented whatever information is available in this respect. A summary of these particulars is given below to indicate the total number of major concerns in the country in each important industry and the probable number of additional men who may be trained.

| Industry.                                                    | Additional Number of<br>workers to be trained. |
|--------------------------------------------------------------|------------------------------------------------|
| (1) Iron & Steel - 12 concerns                               | 20                                             |
| (2) Refractories - 6 concerns                                | 5                                              |
| (3) Associated Industries -<br>4 firms                       | Not definitely known                           |
| (4) Non-ferrous metallurgical<br>industries - 10 firms       | 5                                              |
| (5) Engineering Industries -<br>24 firms                     | 50                                             |
| (6) Electrical Industries -<br>23 firms                      | 50                                             |
| (7) Ship-building & Marine<br>Engineering - 8 firms          | 15                                             |
| (8) Air-craft (Assembly &<br>maintenance) - 1 firm           | 20                                             |
| (9) Scientific stores - 11 firms                             | 8                                              |
| (10) Coking & Carbonisation<br>Industries - 6 firms          | 5                                              |
| (11) Heavy Chemicals and Chemical<br>Industries - 29 firms   | 15                                             |
| (12) Soaps & Cosmetics - 10 firms                            | 15                                             |
| (13) Textiles (over 50 groups of<br>Mills)                   | 100                                            |
| (14) Tanning, Leather & Leather<br>Products (over 10 firms)  | 25                                             |
| (15) Paints, Varnishes & Associated<br>Industries (16 firms) | 35                                             |
| (16) Paper (over 7 firms)                                    | 10                                             |
| (17) Sugar and alcohol (over 25 firms)                       | 50                                             |



| Industry.                                             | Additional Number of workers to be trained. |
|-------------------------------------------------------|---------------------------------------------|
| (18) Glass & Ceramics (22 firms)                      | 20 (not definite)                           |
| (19) Cement (over 15 firms)                           | 20                                          |
| (20) Rubber (7 firms)                                 | 5                                           |
| (21) Oil Companies and Petroleum Refineries (2 firms) | Not definitely known                        |
| (22) Manganese Mining (3 firms)                       | -do-                                        |
| (23) Copper Mining (1 firm)                           | -do-                                        |

In addition to above firms there is a large number of industrial concerns as for example, the Ordnance factories, Explosive factories, the Mint, Printing presses, Railway workshops, etc. under the direct administration and control of the Government. These have good training facilities.

66. From the foregoing it is obvious that an immediate increase in the outturn of trained technical personnel may be brought about if the facilities available in all industrial concerns including Government establishments in the country are fully mobilised. We attach considerable importance to this and recommend that arrangements be made for the practical training of 300 graduates and for the foremanship training of about 500 men in the immediate future. We also recommend the following tentative distribution of the trainees among the various industries:

|                               | Advanced | Foreman. |
|-------------------------------|----------|----------|
| Iron and Steel Metallurgy     | 20       | 45       |
| Refractories                  | 5        | 8        |
| Associated Industries         | 3        | 5        |
| Non-ferrous Industries        | 5        | 8        |
| Engineering Industries        | 30       | 50       |
| Electrical Industries         | 20       | 35       |
| Ship-building and Marine Eng. | 10       | 15       |
| Air-craft                     | 5        | 8        |

|                                               | Advanced | Foreman. |
|-----------------------------------------------|----------|----------|
| Scientific stores                             | 5        | 8        |
| Coking and Carbonisation                      | 5        | 8        |
| Heavy Chemicals and Pharmaceuticals and Drugs | 30       | 50       |
| Soaps and fats and oils                       | 10       | 15       |
| Textiles                                      | 25       | 40       |
| Leather                                       | 10       | 15       |
| Paints and varnishes                          | 10       | 15       |
| Paper                                         | 10       | 15       |
| Sugar and alcohol                             | 20       | 35       |
| Glass and Ceramics                            | 15       | 24       |
| Rubber                                        | 5        | 8        |
| Cement                                        | 10       | 15       |
| Defence Industries                            | 20       | 35       |
| Railway Engineering                           | 12       | 20       |
| Mint                                          | 5        | 8        |
| Printing                                      | 10       | 15       |

We should, however, like to see a larger proportion of foremen trained.

Training in industrial concerns may be best provided by selecting suitably qualified men and assigning them to various factories. The selected men should be given attractive stipends - at least Rs. 100 per month for advanced training and Rs. 75 per month for foremanship training; and should be placed under the top technical executives of the concerns so that they may receive the best of attention. Advanced industrial training should as far as practicable include training in design and research also. Provision should also be made for the proper supervision of the trainees. We recommend that a total recurring grant of Rs. 8.2 lakhs be sanctioned by the Government for this industrial training scheme. Further we also recommend that the Government may provide whatever additional facilities



the factories concerned might require by way of housing accommodation for the trainees, additional laboratory equipment for research, etc.

67. 'A' grade technicians are experts and specialists in the subject and in most cases it is difficult to provide for their satisfactory training in India. The Overseas Scholarships Scheme was, therefore, introduced by the Government to meet this situation. But at present great difficulties are being experienced in finding admission for these students in institutions abroad. We, therefore, suggest as an urgent measure that a certain number of 'A' grade technicians be trained in India. A tentative priority list of subjects in which training can be imparted in India has been indicated in Dr. Ray's note. (Part II, Chapter V). We hope to be in a position to formulate detailed proposals in this matter later.

68. We have already referred to in brief to the question of training of 'C' grade technicians, although this matter does not come strictly within our purview. We, however, recommend further that a fund of Rs. 5 lakhs should be provided for instituting a system of scholarships to make it possible for 'C' grade technicians already engaged in Industry to undergo a short refresher and supplementary course in suitable institutions or industrial concerns. This refresher course should be arranged in co-operation with the Railway workshops, ordnance factories and the various engineering firms.

#### Section IV.- Technical training for Defence Services:

69. Owing to various reasons Defence Services have so far remained an excluded field and consequently, we are unable to assess the requirements of scientific and technical personnel for the various branches of the services. Working as we are under these handicaps, we are unable to formulate any specific proposals for the immediate filling in of the existing lacunae if any. However, in view of the imminent constitutional changes in the country with the consequent changes in the organisational set up of the services both on the operational side and on the technical side, we have felt it necessary to examine at this stage the subject of Defence in its general technical aspects, so as to be able to suggest certain essential and immediate measures that might be a sort of 'path-finder' for a future comprehensive plan. For this purpose we have had the note prepared by Wing Commander Singh (Part II, Chapter VI) as a basis although it refers chiefly to the Air Forces.

70. It has been brought to our notice that certain recommendations of the Pay Commission are likely to affect adversely the efficiency of the Technical Arms of the Defence Services. We wish to bring it to the notice of the Government that unless the status of technical and scientific men in the Services as in other services is improved the efficiency of Defence Services will greatly suffer. Since, however, this question is closely linked up with the larger general question of status of scientists and technical men we defer making any definite recommendations in the matter here.

71. Although during the war, a certain amount of co-operative research was carried out between the Defence Department and certain civilian research organisations, we regret to have to say that the Defence Organisation of the country has not become research conscious and consequently



55  
there has been poor development of defence research.

The chief contributory factor to this state of affairs has been that the Defence Forces in India have so far been staffed and manned by British Officers, who depended on British resources for scientific developments. Now that the power of administration and defence of the country is going to pass into our hands it is imperative that we should build up a strong defence organisation on up-to-date and scientific lines. For this, we need to organised defence research on an extensive scale with strong scientific sections to deal with the training and utilisation of resources available in the country for forward advance in the manufacture of defence materials. Our considered recommendation in this respect, therefore, is that the Defence Department should be asked to formulate a project which should include research, design and engineering construction for the several branches of the Defence Forces viz. Army, Navy and Air Forces; and the project should be examined by a commission of experts.

Since Defence research cannot make any progress without the co-operation of civil research, we also recommend that effective liaison between the Civil and the Defence Organisations be established immediately. We understand that a scientific adviser appointed by the Government has made certain recommendations for the development of the scientific and technical side of the Defence Services. We urge that the report of this expert be made available to Scientific Man-power Committee.

72. In the matter of technical training for Defence Services we have already referred to the inadequacy of information. It is, therefore, essential that the necessary information should be collected by the Defence Department and examined immediately. Meanwhile,

on the basis of information presented in Wing Commander Singh's note relating to Air Force requirements we propose the following urgent measures for adoption:

(a) The existing scheme of technical training in Civil Aviation be correlated with that in the Royal Indian Air Force. This measure will not only quicken the pace in the training of mechanics but will also enable us to create a common pool of trained men for sharing it between the two organisations.

(b) The Civil Aviation Training Centre at Saharanpur should be utilised for the training of both the Air Force and the Civil Aviation personnel.

(c) Ground engineers in Civil Aviation with A, B, C, D & X licenses should be employed by the Air Force; and the Air Force should be fully represented on the examination boards and the certificates endorsed as 'Acceptable to the Defence Services.'

(d) For the development of radio research the Indian Institute of Science, Bangalore, the Universities of Calcutta and Allahabad and the National Physical Laboratory should be enabled to expand their facilities so that a large number of research workers may be admitted.

#### Section V. Shortage of Equipment and other related questions.

73. Elsewhere we had occasion to refer to the shortage of essential laboratory equipment in our educational research institutions. We feel, however, that the matter is so important that it deserves special consideration. During the war years most of our educational and research institutions have greatly suffered in the matter of scientific instruments and apparatus, due to various disabilities as for instance lack of funds, import control restrictions etc. These handicaps continue in a large measure even now; and unless they are removed immediately,



it will be almost impossible for the institutions to expand their training facilities and increase the output of scientific manpower in the country. The situation calls for quick action and we strongly urge the Government to give top priority to the import of scientific equipment for educational and research institutions. We also urge that the Government should remove all restrictions on import of scientific equipment and endeavour to secure from abroad through the supply missions or other official channels whatever equipment the institutions concerned fail to obtain themselves. The Government should also encourage Indian concerns to manufacture scientific and technical equipment. If the government allows a rebate on the import duty of scientific equipment it would be giving considerable help to the institutions. We commend this for the earnest consideration of the government.

74. On the cessation of the war a considerable amount of scientific stores and equipment of educational value was rendered surplus and these are now being released for civilian use. But due to the existing disposals policy of the Government a large part of the valuable materials of educational value is passing into the hands of private dealers and the hard-pressed educational institutions are being deprived of much needed equipment. We take a serious view of the matter and desire that the present disposals policy should be reviewed. We have projected in this report a plan of scientific and technical training in various institutions in the immediate future which entails a supply of a fair amount of scientific apparatus and equipment to the institutions. Unless the necessary equipment is provided to the institutions we are afraid the plan may very well fail to produce the desired result. Under the existing circumstances, it is difficult to obtain

all the needed equipment from abroad even if there is enough money for it. Recourse will, therefore, have to be had to our own resources in the country of which the surplus war goods form a valuable part. We strongly urge the government to reconsider its disposal policy in the light of these circumstances and take such measures as are necessary to ensure that surplus war goods of scientific value are made easily available to educational and research institutions and as far as possible without cost.

#### Housing.

75. The next important question is the housing accommodation for additional men who will have to undergo the proposed training in universities, special institutions and industry. There is already acute shortage of hostel or suitable housing accommodation in every educational institution in the country. Industrial concerns are also hard pressed in this respect and many of them, although willing to take in apprentices in large numbers have been compelled to greatly restrict admissions on this ground. This is a serious situation and needs looking into soon. For otherwise, it will become worse and no institution or factory will be able to take in additional men under our proposed training programme. The government should immediately evolve a suitable machinery for expediting building construction especially at various training centres and also provide necessary funds for the purpose. We suggest the following concrete steps:-

- (a) construction of additional wings to the existing hostels in universities, research and technical institutions where the additional men are intended to be trained and the cost of such construction to be borne partially or entirely by the Government.



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- (b) construction of residential buildings in factories, where training is to be provided on the basis of 50% of the cost as interest free loan to the industrial concerns, the loan to be repaid to the government in instalments and the buildings constructed to become the property of the concerns after a certain period when the loan has been repaid. It is hoped that the concerns will welcome this proposal.

Section VI. Steps to expedite Government projects.

76. Before we close this chapter, we feel it necessary to mention that we have been told that great difficulties are being experienced in implementing most of the Governmental schemes for the improvement and expansion of research and training facilities. Even though the subject does not come strictly within our terms of reference, we feel it incumbent on us to make a reference to some of the difficulties which have been brought to our notice, and to suggest steps that the Government may take to overcome them.

We are informed that:

- (1) It is difficult to secure suitably trained men, especially in the higher cadres owing to
- (a) the lack of proper appreciation of the services which scientists can render and consequent relegation of scientists to a status subordinate to administrators;
  - (b) the prevailing system of recruitment through the Federal Public Service Commission; (scientists of good standing do not normally respond to advertisements and can be secured only through negotiation);
  - (c) the generally low salaries attached to scientific posts;

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- (d) the lack of funds and the machinery whereby teaching and research institutions can benefit by sending their experienced men to visit the well-known world centres of training and research;

- (e) the inadequacy of the number of scholarships available for research and post-graduate training.

(II) Most of the institutions are hopelessly out of date in the matter of equipment and what they possess require complete overhauling.

(III) A great deal of time is wasted in getting buildings planned and executed through the Government agencies.

(IV) A great deal of time is wasted owing to the necessity of getting the administrative department's sanction on major as well as minor issues relating to staff, equipment, etc.

77. In our opinion the above difficulties can be overcome if the Government agree to

(1) Leave it to the administrative department to decide as to how any particular scientific or technical post should be filled. The normal procedure of recruitment through the Federal Public Service Commission may be followed generally but in special cases at the discretion of the administrative department, posts may be filled by negotiation with prospective candidates through the medium of a selection committee, with which, if necessary, it may be possible to associate the Federal Public Service Commission.

(II) Create a Scientific Service equal in status and emoluments to administrative services, similar to that created in Great Britain.

(III) Improve the salary scales of teachers especially those engaged in technical education.



(IV) Provide funds to enable the institution to send their experienced staff overseas to visit important centres of scientific and technical education and research.

(V) Institute a large number of scholarships for post-graduate and research training in institutions in India.

(VI) Assist institutions to bring their equipment up-to-date.

(VII) Afford the fullest scope to Indian agencies to manufacture and wherever necessary import scientific and technical equipment.

(VIII) Authorise the administrative department to set up a Building Committee on which representatives of the Central Public Works Department and the Finance Department may sit together with departmental representatives and wherever necessary, to entrust the department at its discretion to have their buildings planned and executed through private agencies.

(IX) Delegate a greater amount of power than at present to heads of educational and research institutions.

(X) Place at the disposal of institutions funds in the form of block grants to implement programmes approved by the Government. The procedure for expending these grants should be simplified so as to give the greatest amount of freedom to the head of the institution, consistent with due safeguards, to enable the programme to be put into execution speedily and effectively.

(XI) Decisions on technical matters should be arrived at in full consultation with scientific and technical men of the department concerned at all stages. Any change, in technical proposals including policy should be effected only after giving technical men the fullest opportunity to represent their view point.

78. The Sub-committee desires to place on record its high appreciation of the valuable services rendered by Dr. S.R. Sen Gupta and Mr. L.S. Chandra Kant in the preparation of this report.

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New Delhi,  
August 3, 1947.



CHAPTER II.

Summary of Recommendations.

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The Sub-committee of the Scientific Manpower Committee makes the following recommendations to the Government of India for immediate implementation:

I. For an immediate improvement in the outturn of scientific man-power the Government should utilise the existing sources, viz., universities, special institutions and the industrial concerns by helping to create in these places adequate facilities for higher education, research and practical training. Such help as is to be given should largely be in the form of grants for <sup>(a)</sup> the creation of scholarships on a generous scale (b) the purchase of equipment, (c) the opening of post-graduate research departments in the universities, which do not have any at the moment. In addition to above, the several educational development plans, which have been prepared by the Departments of Education etc., should be pushed through, immediately.

For the objectives generally set forth above the Sub-committee makes the following detailed recommendations under various heads.

II. Education:

(a) Basic Scientific Education

- (i) A substantial increase in the facilities for education in general science up to the Intermediate Science and B.Sc. standards should be aimed at so that the output from these courses may be adequate to feed the post-graduate institutions. (Para 3, Chapter I).
- (ii) As an interim measure to meet the present emergency double shifts should be introduced in such institutions where there is some spare teaching accommodation and equipment but a

completely new set of staff should be engaged for the second shift. The Government should, wherever the introduction of double shift is concerned feasible, come to the aid of the institution by bearing a share of the expenses on staff salary and contingencies; and by assisting the institution in securing a certain amount of equipment and building materials.

(Para 4, Chapter I)

- (iii) The Provincial Governments should be requested to convert without delay some of their existing ordinary High Schools into Technical High Schools.

(Para 5, Chapter I)

(b) Higher Scientific Education:

- (i) The Government of India should come to the aid of all universities by giving them suitable financial assistance to expand their post-graduate departments so that the output of post-graduate science students may be increased (para 6, Chapter I)
- (ii) The recommendations of the Geological Education Committee should be acted on immediately so that trained geologists adequate in number may be available for the survey and development of India's mineral resources. The Geological Survey of India should increase the number of their present training camps so as to be able to train annually at least 50 geologists in field work. (Para 7 & 8, Chapter I)

(c) Engineering and Technological Education:

In the matter of education in engineering and technology a short term and a long term programme should be initiated within the next six months:

Short-term programme:

- (i) Introduction of an intensive 12 month training programme of M.Sc's and graduates in Chemical Technology to be run on a co-operative basis



between (14 different technical institutions and corresponding industries) at a cost of Rs. 34 lakhs in capital and Rs. 13.3 lakhs in recurring (Para 15, Chapter I).

- (ii) The universities should introduce 3-year degree courses in engineering as proposed by the All-India Council for Technical Education. (Para 16, Chapter I).
- (iii) Double shift system should be introduced in engineering colleges, if conditions justify (Para 17, Chapter I)
- (iv) Wherever possible use should be made of the teaching facilities of the science departments of general colleges to assist in the education in basic sciences for engineering students. (Para 18, Chap. I)
- (v) As an interim measure, engineers in Government service should be encouraged to assist in the instruction in engineering colleges. (Para 19, Chapter I).

Long-term Programme:

- (i) For ensuring co-ordinated development of technical education and generally to raise its standard, the Regional Committees, recommended by the All-India Council for Technical Education be established immediately. (Para 22, Chapter I)
- (ii) For the improvement of the standard of education as well as the expansion of some of the institutions of engineering and technology, so that the present facilities may be fully utilised the Government of India should immediately make grants to such institutions as are recommended by the All-India Council for Technical Education. The grants required will be about Rs. 2 crores capital spread

over 5 years and Rs. 31 lakhs recurring (Para 23, Chapter I)

- (iii) Building construction at present contemplated to increase the annual intake of architecture and engineering classes of the Delhi Polytechnic should be expedited. The existing unsatisfactory conditions in the Delhi Polytechnic, especially in the matter of salaries to teachers, accommodation etc. should be removed and certain departments of the institution should be affiliated to the Delhi University. The government should also consider the desirability of setting up a small technical committee to advise the governing body of the Polytechnic (Para 24, 25 - Chapter I)
- (iv) The Indian Institute of Science should be urged to expedite the opening of the Power Engineering Department so that the outturn of engineers, adequately qualified to handle hydroelectric power development projects etc. may be available soon (Para 27, Chapter I)
- (v) Within the next six months the Government should complete the purchase of the sites and appoint the planning staff and if possible arrange to hire temporary buildings for starting work on the Eastern and the Western Higher Technical Institutions. (Para 29, Chapter I).
- (vi) The Government should give immediate effect to the recommendations of the Indian School of Mines Re-organisation Committee for the improvement and expansion of facilities for mining and applied geological education. Para 30, Chapter I)
- (vii) The scheme of training of 'C' grade technicians prepared by the Department of Labour should be put into operation as far as possible within the next six months.



For this purpose and for the training of craftsmen or overseers, the Government should take <sup>over</sup> some of the private engineering schools and develop them. (Para 31, 32, Chapter I).

(viii) For the special needs of leather and foot-wear industries leather chemistry should be introduced as one of the subjects in the M.Sc. Industrial Chemistry course and the existing training institutions in leather technology should be made more efficient and useful by adding to their equipment and by enabling them to have better paid staff. (Para 33, Chapter I).

(d) Agricultural Education:

(i) For the co-ordinated development of agricultural education, the Government should constitute on an all-India basis an Advisory Council for Agricultural Education. (Para 35, Chapter I).

(ii) In order to bring about an improvement in the flow of trained personnel the system of double shift should be introduced wherever possible, as an interim measure. (Para 36, Chapter I).

(iii) The programme of development of training and research facilities of the Indian Agricultural Research Institute, Central Agricultural College and other Central Research Institutes dealing with different aspects of agriculture with forestry; and fisheries should be implemented and all facilities given to increase the scope of the training programme so as to be able to train double the present number.

(iv) The Indian universities should be encouraged by financial grants and otherwise to establish and/or develop their facilities of agriculture and diversify the scope of their training.

(e) Medical Education:

(i) For an immediate increase in the outturn of medical personnel, the double shift system should be tried as an interim experimental measure, in the Calcutta Medical College and a grant of Rs. 1.3 lakhs in recurring and Rs. 0.10 lakhs in Capital be made for the purpose. The possibility of introducing this system in the G.S. Medical College, Bombay, should also be investigated. (Para 41, Chapter I).

(ii) As a long term measure the following grants should be sanctioned for the general improvement and expansion of training facilities in the existing medical colleges and certain other purposes.

(a) Existing Colleges in

|                       | India                | Pakistan             |
|-----------------------|----------------------|----------------------|
|                       | (in lakhs of rupees) | (in lakhs of rupees) |
| Capital               |                      |                      |
| Expenditure           | 432.0                | 54.0                 |
| Recurring expenditure | 115.5                | 16.5                 |

(b) Rs. 6 lakhs capital and Rs. 6.75 lakhs recurring for starting departments of Preventive Medicine and Public Health in the Medical Colleges of Bombay and Calcutta.

(c) Rs. 0.825 lakhs for instituting 50 medical research scholarships at various centres in India.

(d) Rs. 2.8 lakhs capital and Rs. 2.66 lakhs recurring for expanding the existing training facilities of the All-India Institute of Public Health and Hygiene.

(e) Rs. 3.38 lakhs capital and Rs. 2.98 lakhs recurring for the improvement and expansion of the Calcutta Dental College and the Dental College in Bombay.

(f) A capital grant of Rs. 1 lakh and a recurring grant of Rs. 1.5 lakhs to the Nursing College over and above present expenditure.

(g) A recurring grant of Rs. 71,000 to the Lady Reading Health School, Delhi, for the next three years.

(h) Rs. 2.05 lakhs recurring and Rs. 11,000 capital for schemes for training of certain types of non-medical personnel such as midwives, health inspectors, health visitors and vaccinators in the provinces.



(i) Rs. 0.60 lakhs recurring for instituting 12 research scholarships in medical and social welfare work at the Tata Institute of Social Sciences, Bombay.

(j) Rs. 446.3 lakhs capital and Rs. 132.8 lakhs recurring for a college of Pharmacy in Calcutta, a start being made within the next six months. (Paras 42 to 51, Chapter I)

### III. Scientific Research Training:

(i) The rigidity of the system of training obtaining in certain universities, and research institutions should be removed and the system made more flexible and diversified so that a wider field of activity could be covered. (Para 53, Chapter I)

(ii) The drift or wastage of scientific talent now going on should be prevented; and such available talent should be assessed and properly made use of. (Para 54, Chapter I)

(iii) For an immediate improvement in the research training facilities in universities and special institutions the following measures should be given effect to:

- (a) the institution of 250 scholarships in Indian universities and non-government research institutions at an estimated expenditure of Rs. 3 lakhs in recurring.
- (b) Creation of 20 professorships, 20 readerships and 40 lectureships in certain universities.
- (c) The Universities of Madras, Nagpur, Delhi, Agra Patna and Annamalai be asked to start post-graduate research departments in certain important subjects and a total grant of Rs. 30 lakhs in capital and Rs. 7.0 lakhs in recurring (which includes (b) above) be sanctioned.
- (d) The Universities of Calcutta, Bombay, Andhra, Benares, Lucknow, Allahabad, Aligarh, Punjab and Dacca be asked to expand their research training facilities by way of equipment,

library etc. to take in additional workers and that a total grant of Rs. 18 lakhs in capital and Rs. 3 lakhs in recurring be sanctioned.

(e) The Indian Institute of Science, Bose Research institute, Tata Institute of Fundamental Research, Nutrition Research Laboratory, Cotton Technological Laboratory, Indian Association for the Cultivation of Science, Lac Research Institute, Jute Research Institute and the Laboratories of the Indian Academy of Sciences be asked to expand their research facilities to accommodate more workers and that a grant of Rs. 12 lakhs in capital and Rs. 2.25 lakhs in recurring be sanctioned for the purpose.

(f) The Council of Scientific and Industrial Research be asked to admit at least 20 research workers for training in their present laboratories and that a grant of Rs. 35,000 in recurring be sanctioned for the purpose.

(g) The Bengal Tanning Institute, Leather Trades Institute, Madras, Harcourt Butler Technological Institute, Kerala Soap Institute, Imperial Institute of Sugar Technology and the Indian School of Mines, be asked to expand their research facilities to take in more men and that a grant of Rs. 0.75 lakhs in recurring be sanctioned for the purpose.

(h) The various scientific departments of the Government which are about 20 in number be asked to formulate immediately proposals for the training of as many men as possible, not less than 200 in any case for all the departments and the Government take appropriate action on the proposals.

(i) A scheme of Railway Scientific Research for the training of about 200 workers be instituted immediately, and a grant of Rs. 3.42 lakhs in recurring be sanctioned for the purpose.



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- (j) For the organisation and development of scientific and industrial research in the country the government should implement the recommendations of the Industrial Research Planning Committee especially in regard to the levy of statutory cess on industry for research purposes. (Paras 55 to 63, Chapter I)

#### IV. Industrial Training.

- (i) All the established industrial concerns in the country should be approached to provide facilities for advanced and lower grades of training in their factories for more men. In case the response from the concerns is poor the government should introduce suitable legislative measure whereby it should become incumbent on industrial concerns to provide technical training for qualified students notwithstanding whether the personnel thus trained would be required by the particular concerns or not. (Para 64, Chapter I)

- (ii) In all contracts entered into by the Government for the purchase of industrial machinery, plant and equipment from foreign and Indian firms there should be a provision in the terms of purchase for the training of a suitable number of Indians in the workshops of the firms. (Para 64, Chapter I)

- (iii) The following immediate programme of training of men in industry should be implemented:-

- (1) Advanced training of 300 men in 24 major industries at an estimated cost of Rs. 3.6 lakhs recurring.
- (2) Foremanship Training of 500 men in 24 major industries at an estimated cost of Rs. 4.6 lakhs recurring. (Paras 65 & 66, Chapter I)

#### V. Technical Training in Institutions:

- (i) A certain number of 'A' grade technicians (experts) should be trained in India possibly in accordance

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with the tentative list of priority subjects drawn up by the Sub-committee. (Para 67, Chapter I)

- (ii) A scheme of imparting an immediate intensive short-course training to 'B' grade technicians as mentioned at II(C) (i) should be implemented forthwith.
- (iii) A grant of Rs. 5 lakhs be made for instituting a system of scholarships to make it possible for 'C' grade technicians already engaged in industry to undergo a short refresher and supplementary course in suitable institutions or industrial concerns (Para 68, Chapter I)

#### VI. Defence.

- (i) The Defence Organisation of the country should be developed on up-to-date scientific lines partly by organising defence research on an extensive scale, through a strong scientific section dealing with the training and utilisation of resources available in the country for forward advance in the manufacture of defence materials. For this purpose the Defence Department should be asked to formulate a scientific project which should include research, design and engineering construction for the several branches of the Defence Forces viz. Army, Navy and Air Forces and the project examined by a Commission of Experts. (Chapter I, para 71)
- (ii) Since Defence Research cannot progress without the co-operation of 'Civil' research effective liaison should be established immediately between the 'Civil' and 'Defence' organisations. (Para 71, Chapter I)
- (iii) Adequate information relating to the requirements of the Defence Organisation in respect of scientific and technical man-power being not available at this stage, the necessary details should be collected from the Defence Department immediately and examined. (Para 72, Chapter I)



(iv) With reference to the Air Forces the following measures should be adopted as far as practicable.

- (a) The existing scheme of technical training in civil aviation be correlated with that in the R.I.A.F. This measure will not only quicken the pace in the training of mechanics but will also enable us to create a common pool of trained personnel between the two organisations.
- (b) The Civil Aviation Training Centre at Saharanpur should be utilised for the training of both the Air Force and the Civil Aviation personnel.
- (c) Ground Engineers in Civil Aviation with A, B, C, D & X licences should be employed by the Air Forces; and the Air Force should be fully represented on the examination boards and the certificates endorsed as "Acceptable to the Defence Services". (Para 72, Chapter I)

#### VII. General recommendations:-

- (i) For the successful expansion of research and training facilities in universities and special institutions, especially in regard to the various programmes recommended above the Government should immediately adopt the following special measures :-

- (a) The existing handicaps in the matter of import of scientific equipment and apparatus for educational institutions should be removed and top priority given for such imports. The Government should also endeavour to secure from abroad through the official trade agencies whatever equipment the institutions concerned fail to obtain themselves. The Government should as far as possible also allow rebate on the import duty on scientific equipment.

- (b) In order to augment the existing equipment resources for scientific institutions the Government should reconsider its present policy of disposal of surplus war materials of scientific value and adopt necessary measures to prevent the passing of such materials into the hands of private dealers and ensure that the materials are made available to educational and research institutions easily and as far as possible free of cost.

- (c) In order to facilitate the training of additional workers in institutions and industrial concerns the Government should immediately evolve a suitable machinery for expediting building construction, especially at various training centres, and also provide necessary funds for the purpose. The following concrete steps may be favourably considered by the Government:-

- (i) Construction of additional wings to the existing hostels in universities, research and technical institutions where the additional men are intended to be trained and the cost of such construction to be entirely borne by the Government.
- (ii) Construction of residential buildings in factories where training is to be provided on the basis of 50% of the cost as interest free loan to the industrial concerns, the loan to be repaid to the Government in instalments and the buildings constructed to become the property of the concerns after a certain period. (Paras 73 to 75, Chapter I)

- (2) In order to overcome the great difficulties experienced by the Government in implementing most of their schemes for the improvement and expansion of research and training facilities, the Government should:-

- (a) Leave it to the administrative department to decide as to how any particular scientific or technical post should be filled. The normal procedure of recruitment through the Federal Public Service Commission can be followed generally but in special cases at the discretion of the Administrative department, posts may be filled through negotiations with prospective candidates through the medium of a selection committee, with which it may be possible to associate the Federal Public Service Commission.
- (b) Create a Scientific Service at par in status and emoluments with administrative services, similar to that created in Great Britain.
- (c) Improve the salary scales of teachers especially those engaged in technical education.



- (d) Provide funds to enable the institution to send their experienced staff overseas to visit important centres of scientific and technical education and research.
- (e) Institute a large number of scholarships for post-graduate and research training in institutions in India.
- (f) Ask the administrative department to set up a Building Committee on which representatives of the C.P.W.D. and the Finance Department may sit together with departmental representatives and wherever necessary to entrust the department at its discretion to have their building planned and executed through the private agencies.
- (g) delegate a greater amount of power than at present to heads of educational and research institutions.
- (h) place at the disposal of the institutions the funds in the form of block grants to implement programmes approved by the Government. Normally the head of the institution should have the authority as a matter of course once the scheme has been approved and funds allotted, to take the action he considers most appropriate to achieve the desired result without delay.
- (i) Decisions on technical matters should be arrived at in fullest consultation with the scientific and technical men at all stages. For any changes in technical proposals including policy, technical men of the department should be given an opportunity to represent their view point. (Para 77, Chapter I).

Total of grants recommended. (For interim period)

| <u>For</u>                                                                             | <u>Capital Expenditure in Rs.lakhs.</u> | <u>Recurring Expenditure in Rs.lakhs.</u> |
|----------------------------------------------------------------------------------------|-----------------------------------------|-------------------------------------------|
| 1. Expansion of facilities for higher scientific and technical education and training. | 234                                     | 45.3                                      |
| 2. Medical education and training                                                      | 945.69                                  | 284.175                                   |
| 3. Scientific and industrial research and training                                     | 60                                      | 19.748                                    |
| 4. Industrial training                                                                 | Nil                                     | 13.20                                     |
| Grand total                                                                            | 1,239.69                                | 362.445                                   |

(The above includes the provision for departmental schemes, which have been accepted by Government, in principle).